

Swiss National Bank Quarterly Bulletin

September 3/2008 Volume 26

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Sectional breakdown of bulletin Q3/2008

Monetary policy report (p. 6)

The international economy began to slow in the first half of 2008. In Europe and Japan, GDP fell in the second quarter. In the US, growth was largely supported by private consumption. All world regions recorded substantial deterioration in consumer and producer confidence. Growth momentum remained high in the emerging economies in East Asia. However, initial signs of an economic slowdown are also visible in these nations. Compared to the June forecast, the SNB has revised its GDP growth assumptions for 2008 and 2009 downwards for all of these regions.

As expected, Swiss GDP grew slightly below potential in the second quarter. This confirms the deceleration in economic activity that was already becoming evident in the first quarter. Added value from the Swiss banking sector again dropped considerably due to the impact of the international financial market crisis. However, the favourable business results achieved in manufacturing and in consumer-related industries had a bolstering effect. The SNB assumes that economic growth will slow further in the second half of the year and continues to forecast real GDP growth of 1.5–2% for the year as a whole.

At its quarterly monetary policy assessment in June, the SNB decided to leave its target range for the three-month Libor unchanged at 2.25–3.25%.

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

Most of the 170 or so representatives of various economic sectors and industries interviewed by the SNB delegates for regional economic relations between June and August 2008 reported continued healthy business activity and a high utilisation of production capacity. During the reporting period, however, a slackening in demand was observed, particularly in manufacturing and construction. For the months ahead, consumer industries also expect demand to weaken. Employment is likely to continue growing at a slower pace.

SNB Working Papers (p. 46)

Abstracts of five papers: Raphael Auer and Thomas Chaney, 'Cost pass through in a competitive model of pricing-to-market', *SNB Working Paper 2008-6*; Martin Brown, Armin Falk and Ernst Fehr, 'Competition and relational contracts: The role of unemployment as a disciplinary device', *SNB Working Paper 2008-7*; Raphael Auer, 'The colonial and geographic origins of comparative development', *SNB Working Paper 2008-8*; Andreas M. Fischer and Angelo Ranaldo, 'Does FOMC news increase global FX trading?', *SNB Working Paper 2008-9*; Charlotte Christiansen and Angelo Ranaldo, 'Extreme co-exceedances in new EU member states' stock markets', *SNB Working Paper 2008-10*.

Monetary policy report

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

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

Monetary policy report

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About this report

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

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

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

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

Monetary policy decision

At its quarterly assessment on 18 September 2008, the Swiss National Bank (SNB) decided to leave the target range for the Swiss franc three-month Libor unchanged at 2.25–3.25%, and intends to hold the rate in the middle of the target range for the time being. It is continuing its generous and flexible provision of liquidity to the Swiss franc money market.

The slowdown in economic activity, which first made its appearance in the US, is now spreading to Europe and, to a lesser extent, to the emerging economies. Despite a substantial correction, oil prices remain high. They continue to curb the international economy and exert inflationary pressure. The situation on the financial markets is a matter for concern.

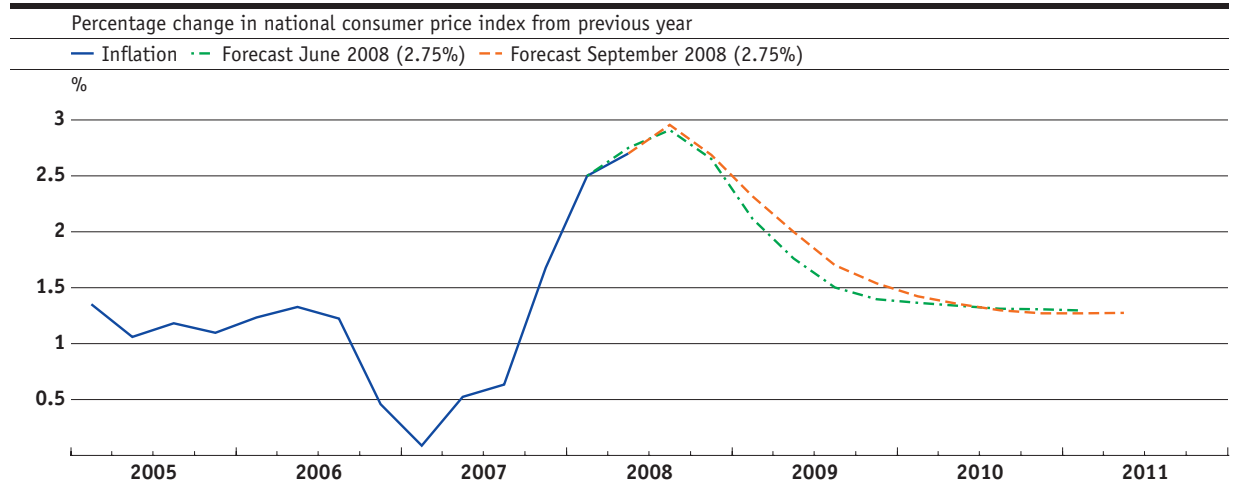
Developments in the Swiss economy are in line with the SNB's expectations. During the first half of the current year, the growth rate dropped back, after having reached 3.3% in 2007. The economy has remained relatively robust despite the deterioration in the world economy, but the slow-

down is likely to continue over the months to come. The SNB is maintaining its June forecast of real GDP growth of 1.5–2% for 2008.

Its inflation forecast has changed only slightly from that published in June; at most, inflation is predicted to decrease a little less quickly next year than might have been expected three months ago. Assuming that the Libor remains unchanged at 2.75%, inflation should reach 2.7% in 2008 and then ease back to 1.9% in 2009 and 1.3% in 2010, as a result of the economic downturn and the stabilisation of oil prices. Due to the substantial risks associated with the future path of the international economy, financial markets and energy prices, this forecast involves considerable uncertainties.

The prospect of inflation decreasing in the medium term makes it possible for the SNB to maintain its monetary policy course without any modification. However, caution is necessary in view of the current risks. Therefore, the SNB will keep a close watch on developments in the global economy, the financial markets and oil prices, so as to be in a position to react swiftly, if the need arises.

Inflation forecast of June 2008 with Libor at 2.75% and of September 2008 with Libor at 2.75%



Inflation forecast of September 2008 with Libor at 2.75%

	2008	2009	2010
Average annual inflation in percent	2.7	1.9	1.3

1 Developments in the global economy

The international economy began to slow in the first half of 2008. However, due to certain one-off effects, the advanced economies experienced varying growth rates in the second quarter. While tax rebates and the weak dollar bolstered growth in the United States, GDP in the euro area and Japan slackened, partially in reaction to the strong growth in the previous quarter. Meanwhile, all regions recorded a deterioration in consumer and producer confidence, as well as in the outlook for the labour market and exports. The emerging economies in East Asia also showed initial signs of a slowdown. Fuelled by higher energy and commodity prices, consumer prices continued to climb. The rate of inflation in many countries reached levels last observed in the early 1990s. However, the recent decline in energy and commodity prices presages an easing in the situation.

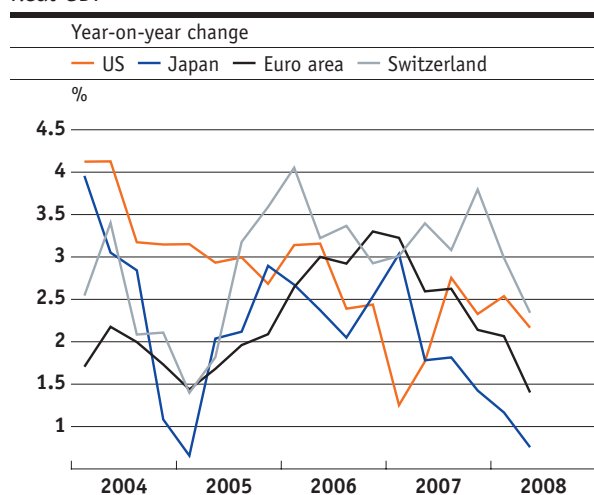
One year after the onset of the financial market disruptions, the crisis still shows no sign of abating. Risk premia remain high on most credit markets and lending conditions have deteriorated even further for nearly all borrowers. In addition, banks' vulnerability has increased, particularly in the US. With this in mind, the economic situation looks set to remain fragile in the near term. The adjustments in the real estate market are likely to continue to hold back growth. The GDP consensus forecasts have been revised downwards, especially for 2009.

Surprisingly sound growth in the US

GDP in the US advanced by 3.3% in the second quarter, as compared with 0.9% in the previous period. The surprisingly sound growth in value added can be attributed in large part to the high export momentum and resilient private consumption. The tax rebates being given to households since the end of April underpinned consumer spending to a considerable extent (particularly for non-durables). Furthermore, the commercial construction sector expanded substantially, which was contrary to expectations. This notwithstanding, economic growth remained weak overall, with the unemployment rate rising from 5.1% to 6.1% between March and August.

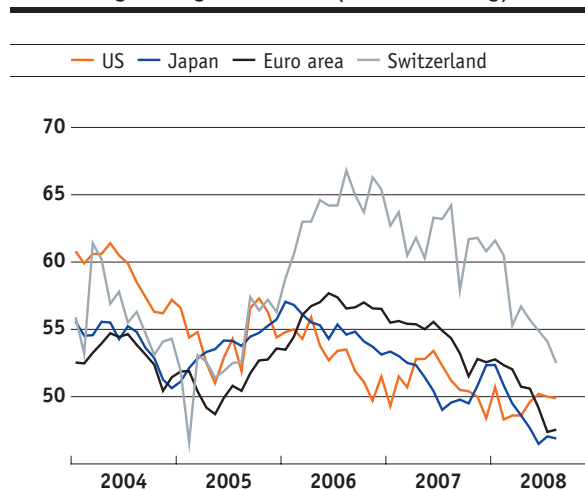
GDP growth is likely to be very subdued over the next few quarters. With consumer sentiment at an all-time low as a result of the deteriorating labour market situation, tighter credit conditions and persistently steep fuel prices, private consumption looks set to wane. The tax rebates are not expected to provide much more impetus to growth, given that around three-quarters of the budgeted amount has already been reimbursed. The situation in the real estate market remains precarious, yet leading indicators, such as the number of home sales and building permits, seem to be stabilising gradually. Exports are again expected to make a positive contribution to growth, despite signs of a downturn in foreign demand. Moreover, in contrast to the recession of 2001, it is unlikely that equipment and inventory investment will con-

Chart 1.1
Real GDP



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

Chart 1.2
Purchasing managers' indices (manufacturing)



Source: Thomson Datastream

tribute negatively to any great extent, since companies only cautiously raised their capital stock in the most recent boom. Owing to the strong growth in the second quarter, the SNB expects GDP for 2008 to grow by 1.8%, as compared with 1.4% in June. The 2009 forecast, by contrast, was revised downwards from 1.6% to 1.3%.

Sluggish economy in the euro area

After having risen 2.7% in the first three months, economic performance in the euro area fell by 0.8% in the second quarter, making it the largest drop since Eurostat records began in 1995. GDP fell in the three largest economies in the euro area (Germany, France and Italy), while value added grew only slightly in Spain and stagnated in the Netherlands. The decline in GDP was partly attributable to one-off effects, such as construction and investment contracts in Germany that were brought forward. The economy also suffered increasingly from high energy prices, which dampened consumers' purchasing power and restricted private consumption. In addition, foreign demand lost momentum, not least due to the strong euro. Although utilisation of production factors declined further, it remained above-average overall. According to a number of surveys, employers were less willing to hire new staff. As a result, the unemployment rate is likely to have reached a new low.

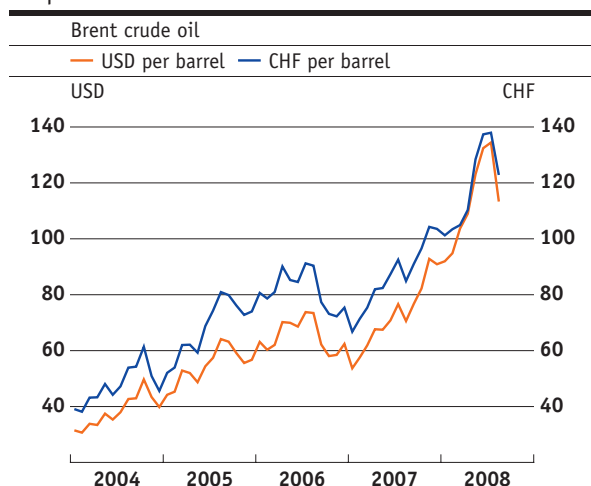
The euro area is currently experiencing a period of weakness. Confidence among producers and consumers plummeted in the last few months. In par-

ticular, companies' expectations with regard to exports and the order situation worsened. Together with the less positive earnings situation and the more restrictive financing conditions, investment and export activity looks set to weaken further, with the decline in export demand mainly attributable to the industrialised countries. Furthermore, the downside risks, which in some countries (Spain, Ireland, UK) are associated with the slowdown in the real estate markets, have risen. The SNB expects GDP growth to reach 1.3% in 2008 and 0.9% in 2009. Compared to June, these figures are 0.5 and 0.6 percentage points lower respectively.

Less momentum in Asia

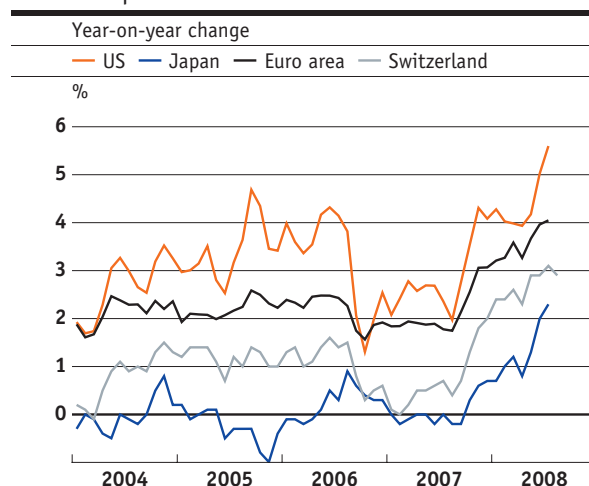
In Japan, real GDP recorded a broad-based decline of 3.0% in the second quarter. The fall was partially in reaction to the strong growth in the first quarter, which benefited from an additional work day due to the leap year; however, it also reflects a slower underlying pace of expansion. With weak wage developments and purchasing power dwindling as a result of high energy prices, private consumption has suffered particularly in the recent period. This was reflected in a significant deterioration in consumer sentiment. Sluggish consumer demand is also taking its toll on the corporate sector, where earnings performance has fallen off due to the rising cost of raw materials and declining export growth. Accordingly, investment activity stagnated in the first half-year. Yet, owing to favourable financing conditions, a drastic

Chart 1.3
Oil prices



Sources: Reuters, SNB

Chart 1.4
Consumer prices



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

decline in investment is not expected for the rest of the year. Given the strong demand from emerging markets, export-oriented companies were cautiously optimistic in the first six months. However, fragile domestic demand suggests that economic growth is likely to be rather weak in the second half-year. The SNB expects GDP growth to reach 1.0% in 2008 and 1.2% in 2009. In June, both rates were still at 1.5%.

China's strong, broad-based growth continued in the second quarter. GDP expanded by 10.1% year-on-year, as compared with 10.6% in the previous quarter. Investment activity remained the driving force. Especially construction investment, which accounts for roughly one-quarter of total investment, accelerated further still. Growth in private consumption remained buoyant, supported by steady growth in employment and income as well as state incentives. On the demand side, indicators such as retail sales and foreign trade figures remained robust until July. Industrial output cooled in July, however; possibly as a result of the measures implemented in the Beijing region in view of the Olympic Games. Discussions are currently underway regarding a broad-based economic stimulus package amounting to approximately RMB 370 billion (almost 1.5% of the country's GDP). The package is first and foremost aimed at achieving structural reforms and more balanced growth, yet it would also bolster the economy in the event of a major slowdown in export growth. A gradual deceleration is to be expected in the coming quarters.

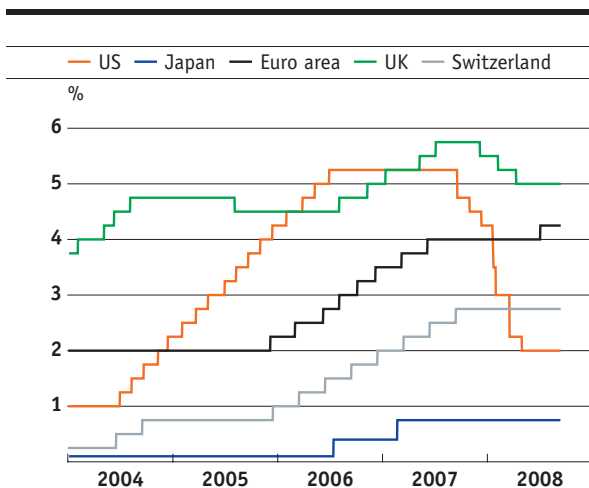
In Korea, Taiwan, Hong Kong and Singapore, GDP grew in the second quarter by an average of 4.4% year-on-year, compared with 6.2% in the previous quarter. The higher prices for food and energy were probably the main reasons for the slowdown in domestic demand. Owing to brisk trade to China, exports remained very dynamic until the middle of the year; however, weakening demand in the industrialised countries and the emerging downturn in the electronics industry point to a slowdown in the second half-year.

Substantial rise in inflation

Annual inflation, as measured by the increase in consumer prices, increased substantially worldwide. While the rising energy and food prices were the main inflation drivers, many countries also saw an increase in core inflation. The most recent decline in oil prices is expected to curb inflation in the coming months; nevertheless, the higher inflation expectations and the possibility of second-round effects will keep inflation risks on the upside.

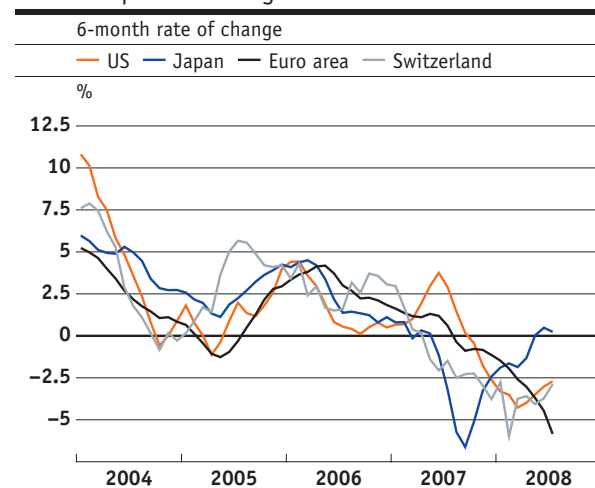
In the US, annual inflation rose from 3.9% in April to 5.6% in July, the highest level in 17 years. The core inflation rate, which excludes energy and food prices, rose from 2.3% to 2.5% in the same period. In the euro area, overall inflation increased from 3.3% to 4.0% between April and July, thereby hitting a new 16-year high. In addition to energy prices, higher prices for food and services contributed to this rise. The core rate of inflation

Chart 1.5
Official interest rates



Sources: SNB, Thomson Datastream

Chart 1.6
OECD composite leading indicators



Source: OECD

climbed one-tenth of a point to 1.7%. In addition, wage pressure, as measured by labour costs, and producer price inflation climbed further. Owing to the oil price adjustment, inflation eased slightly in August to 3.8%. In Japan, annual inflation rose by 1.5 percentage points to 2.3% in the period to July, while the core inflation rate remained close to zero. In the Asian tiger economies – Korea, Taiwan, Hong Kong and Singapore – the inflation rate increased further to an average of 6%. In China, meanwhile, it slipped 2.2 percentage points to 6.3% in the wake of receding food price inflation. Falling food prices are likely to more than compensate for the inflation surge brought on by the planned gradual liberalisation of energy prices.

**Most central banks adopt
wait-and-see policy**

The situation in the international financial markets was still tense one year after the onset of the crisis. Events in the US, in particular, became even more acute in the third quarter. At the begin-

ning of September, the US government had to place the two mortgage institutions, Fannie Mae and Freddie Mac, into conservatorship. Only a few days later, two of the big US investment banks fell victim to the financial crisis. Lehman Brothers collapsed, while Merrill Lynch was taken over by Bank of America. The combination of financial market turmoil, a weaker labour market and rising inflation prompted the Fed to adopt a wait-and-see policy. The Fed left its key rate unchanged at 2.0% until the end of August, after having lowered it by 225 basis points between January and April. In July, the European Central Bank (ECB) raised its main refinancing rate by 25 basis points to 4.25%, mainly with the aim of avoiding second-round effects and limiting rising inflation risks. The Bank of Japan repeatedly emphasised the downside risks to the economy and left its call money rate at 0.5%. By contrast, the Chinese central bank continued to tighten its monetary policy and raised its minimum reserve rate by a total of 100 basis points to 17.5%.

2 Developments in the Swiss economy

Economic developments in Switzerland were somewhat more favourable than in most European countries. GDP growth was only slightly weaker than potential growth. Moreover, employment remained remarkably dynamic. In spite of the turbulence in the financial markets and the deterioration in the economic outlook, the healthy labour market buoyed consumer sentiment. In Switzerland, too, economic growth is clearly in the process of slowing down.

2.1 GDP growth and outlook

Moderate growth in the second quarter

At the end of August, the Swiss Federal Statistical Office (SFSO) published its initial estimate of the national accounts (NA) for 2007, which shows GDP growth at 3.3%, exceeding the original SECO estimate by 0.2 percentage points. In publishing data for the second quarter of 2008, SECO adjusted all the quarterly time series to the new NA key figures.

According to SECO, real GDP in the second quarter was up 1.5% on the previous period, following a rise of 1.1% in the first quarter. In year-on-year terms, GDP growth was 2.3%. Overall, GDP results for the second quarter are in line with the expectations indicated in the last *Quarterly Bulletin* (2/2008).

On the demand side, GDP growth was mainly driven by private consumption and by a positive con-

tribution to foreign trade. However, the extremely strong momentum of exports was boosted by two additional working days and largely neutralised by a similar development in imports. Public sector consumption also showed a positive trend. By contrast, equipment and construction investment contracted, and changes in inventories slowed the economy as well.

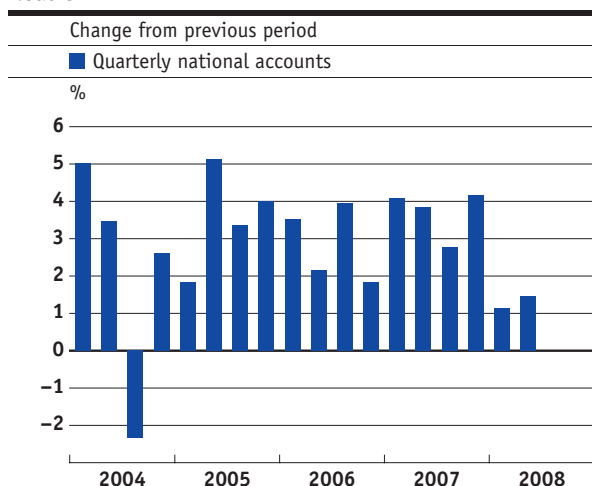
On the production side, GDP growth was primarily driven by value added in the manufacturing industry and a few consumer-related industries (retail as well as transport and communications). A further significant decline in value added was observed in the banking sector, however.

According to statistics for production, orders, turnover and inventories (PAUL) published by the SFSO, manufacturing output was up 6.6% in the second quarter, after having risen by 3.6% in the first quarter. Processing of plastic products displayed particularly dynamic growth, followed by the electrical and watchmaking industries as well as engineering and metals processing. After having stagnated in the two previous quarters, new orders rose by 6.8%. Intermediate and consumer goods, in particular, contributed to this result. New orders in the capital goods industry, however, were down significantly.

Economic slowdown continues

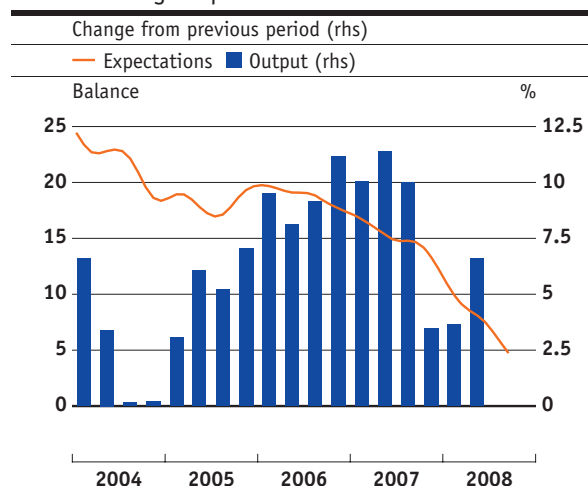
The SNB expects GDP growth to slow further in the second half of the current year and the beginning of 2009. All the leading GDP indicators are pointing downwards. Weaker foreign demand is likely to have a dampening effect on exports of

Chart 2.1
Real GDP



Source: SECO

Chart 2.2
Manufacturing output



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

Real GDP and components
Growth rates on previous period, annualised

Table 2.1

	2004	2005	2006	2007	2006		2007				2008	
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Private consumption	1.6	1.8	1.6	2.1	0.7	0.7	3.1	2.4	3.0	2.2	0.9	2.6
Government consumption	0.8	1.0	-0.9	-1.1	2.5	1.6	-0.5	-0.9	-4.9	-6.1	1.8	2.8
Investment in fixed assets	4.5	3.8	4.7	5.4	3.0	11.2	5.2	14.6	-10.8	2.9	2.5	-2.7
Construction	3.9	3.5	-1.4	-1.5	-0.4	4.0	0.7	-9.8	-4.8	4.7	-4.8	-1.3
Equipment	5.0	4.0	10.0	10.9	5.8	17.1	9.0	36.5	-14.7	1.6	8.1	-3.7
Domestic final demand	2.1	2.2	2.0	2.5	1.5	3.2	3.2	4.8	-1.4	1.3	1.4	1.3
Domestic demand	1.9	1.9	1.4	1.1	-4.5	7.3	-3.5	2.7	-0.6	9.8	-6.6	0.3
Total exports	7.9	7.3	9.9	9.4	12.5	17.3	11.7	4.9	8.8	-0.0	3.2	15.1
Goods	7.3	5.8	11.1	8.4	15.0	17.0	12.9	-1.1	8.2	-2.7	3.6	19.2
Excluding valuables ¹	7.3	6.5	11.2	8.3	8.2	18.5	9.4	2.2	8.3	-1.5	-2.0	28.1
Services	9.7	11.3	6.8	12.1	6.2	18.1	8.5	22.7	10.1	7.2	2.2	5.3
Aggregate demand	3.8	3.7	4.3	4.1	1.3	10.9	1.9	3.5	2.9	6.0	-3.0	5.9
Total imports	7.3	6.6	6.5	5.9	-4.6	34.7	-2.9	2.8	3.2	9.9	-11.4	16.0
Goods	5.8	5.6	7.8	5.1	-9.7	45.7	-5.1	0.6	1.0	6.4	-8.9	19.1
Excluding valuables ¹	5.9	5.3	7.4	6.7	-5.1	31.0	6.7	-0.4	3.1	3.2	-9.3	18.8
Services	14.7	11.3	0.5	10.0	23.1	-7.2	9.0	14.1	14.1	27.2	-21.4	2.2
GDP	2.5	2.5	3.4	3.3	3.9	1.8	4.1	3.9	2.8	4.2	1.1	1.5

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

goods and services. In addition, growth in consumer demand looks set to fall off as a result of the anticipated slowdown in employment growth.

The talks held by the SNB delegates for regional economic relations with around 170 representatives of various sectors and industries between June and August largely confirm this assessment. Even though the pace of business activity in most sectors is still regarded as favourable to very favourable, signals pointing to a slowdown in demand are multiplying. The construction sector and a large segment of the manufacturing sector are affected the most. Respondents in the retail and hospitality trades reported that consumer sentiment was robust and business results were up compared with the previous year. This notwithstanding, these consumer-oriented industries are now also expecting demand to slow in the near future.

There was little mention of an actual slump in demand. The majority of companies therefore expected staff numbers to remain stable or even be up slightly. They also intend to adhere to their investment plans.

On average, GDP is likely to grow by 1.5% to 2% this year. The current slowdown is likely to result in considerably lower annual growth in 2009. This scenario would lead to a gradual reduction in the utilisation of production resources, which is still high.

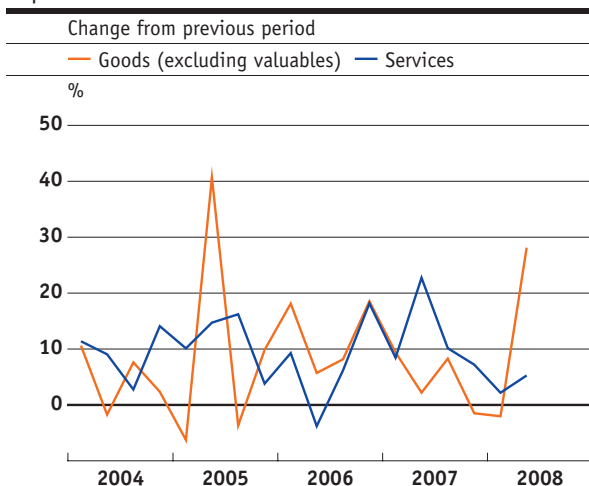
2.2 Foreign trade, consumption and investment

Exports surged in Q2 owing to additional working days

Owing to the two additional working days, real exports again accelerated sharply in the second quarter. In addition to a catching-up effect in exports of services, goods exports – which had receded in the previous two quarters – saw a marked increase. With the exception of the fluctuations that resulted from the additional working days in the first half-year, exports continued to slow as international economic prospects deteriorated further. After registering a 9.4% increase during the whole of 2007, the average growth rate in the first six months was only 5.3% year-on-year.

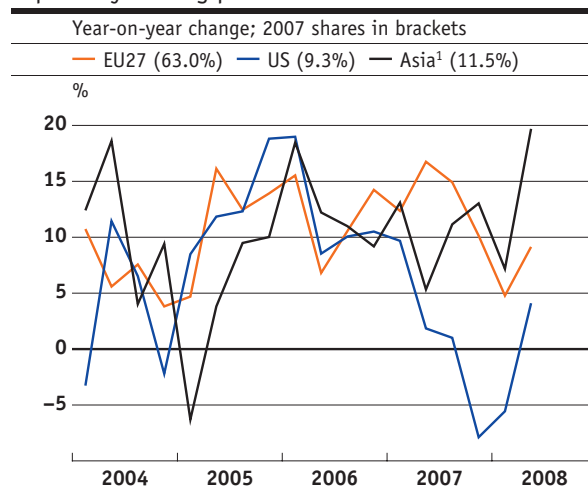
Goods exports (excluding valuables) were boosted by a significant rise in exports of capital goods, in particular sales of aircraft. Exports of consumer goods continued to grow, driven by exports of watches and foodstuffs. In line with the continued favourable sentiment among the corresponding export companies, as revealed by the KOF/ETH survey of industry, consumer goods exports once again saw very high growth rates. Exports of chemical end products (mainly pharmaceuticals), meanwhile, only partially managed to offset the sharp decline in the first quarter. On the whole, the rise in exports was geographically broad-based, with deliveries of goods to Germany registering the only marked decline. Demand from the rest of the EU countries and Asia remained robust. Overall, the results of the survey of export-

Chart 2.3
Exports



Source: SECO

Chart 2.4
Exports by trading partners



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

oriented companies point to a modest pick-up in exports for the coming months.

Exports of services also expanded somewhat more strongly in the second quarter. Merchanting, i.e. transactions in the international commodity markets effected in Switzerland, benefited from the rise in oil prices. Receipts from private insurance companies as well as licensing and patent fees soared, too. As a result of the continuing financial market turmoil, commission income from banking business declined further, however. In addition, receipts from tourism only registered a moderate rise.

Sharp correction in imports

Following a marked decline in the first quarter, real imports picked up again in the second quarter. This was due in part to two additional working days. Goods imports from abroad, in particular, were up. Given the continued solid domestic demand, imports of durables saw substantial growth rates. Imports of capital goods, primarily of industrial machinery and aircraft, also rose sharply, while imports of raw materials and semi-manufactures registered only a slight increase (in particular in the chemical industry).

Imports of services, which had plunged in the previous quarter, only registered a slight increase, however. Income from Swiss tourism abroad had a dampening effect on growth; it fell sharply in the second quarter due to the fact that the Easter effect manifested itself in March this year. Expenditures

for other services (financial services, transport and licensing and patent fees) increased in most cases.

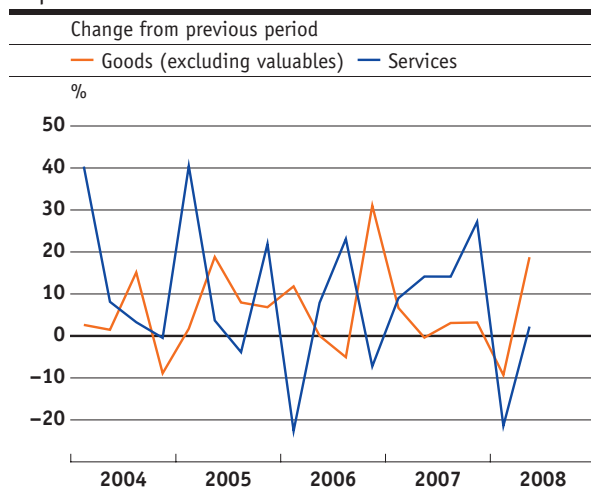
Import figures, adjusted for the volatility that resulted from the shift in working days in the first half-year, suggest a clear drop. Imports in the first half-year rose by only 1.9% year-on-year, after having climbed by 7.3% throughout 2007.

Consumer spending is solid but shows mixed trend

Private consumer spending remained an important driver of growth in the second quarter, rising 2.6% in a year-on-year comparison. Consumer spending thus regained momentum vis-à-vis the first quarter. In the first half of 2008, spending was up 1.8% in real terms compared with the previous year. However, compared to developments observed in 2007, this represents a considerable slowdown.

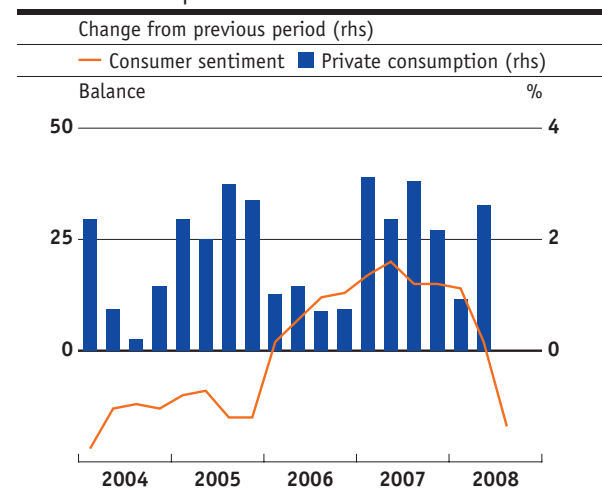
Despite – or perhaps even because of – the 2008 European football championships, the number of overnight stays by Swiss guests in the second quarter was lower than the year-back level. At -5%, the decline was particularly pronounced in June. Retail sales grew by 3.5% in real terms in the second quarter. However, this growth is primarily attributable to exceptionally strong growth in May. In June, retail sales grew by a mere 0.7%. Demand for consumer durables presented a very mixed picture. Outlays for furniture and consumer electronics rose at an above-average rate. By contrast, the negative trend in new car registrations continued.

Chart 2.5
Imports



Source: SECO

Chart 2.6
Private consumption



Source: SECO

Weakened consumer confidence

There was an unexpectedly strong dip in consumer sentiment in the summer. The consumer confidence index calculated by SECO stood at -17 points in July compared with +2 points in April, thus falling below the historical average. The unexpectedly rapid increase in inflation impacted negatively on consumers' assessment of their financial situation and cast a shadow on consumption. As to the future development of their real income, households are also decidedly more cautious than they were at the beginning of the year. The fact that households are relatively optimistic about their job security is a positive sign and is attributable to the continued health of the labour market. Given this situation, consumer spending is likely to grow at a slightly weaker rate in the second half of 2008.

Construction investment still declining

Construction investment continued to decline in the second quarter and fell 1.7% below the year-back level. In terms of the number of apartments under construction, residential construction contracted by 2% from the year-earlier period. According to the quarterly survey by the Swiss contractors' association, construction of commercial property and civil engineering also saw sluggish growth.

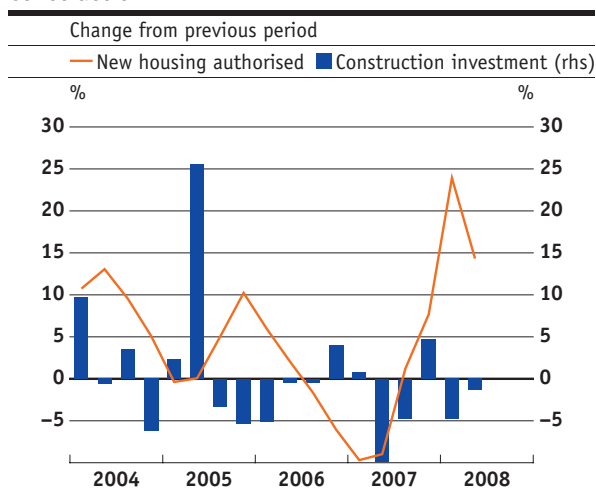
The decline in residential building permits between mid-2006 and end-2007 points to a further drop in residential building investment. Since the beginning of the year, however, the number of building permits has gone up, so that the down-

ward trend in residential building is likely to gradually weaken.

Upward revision of previous equipment

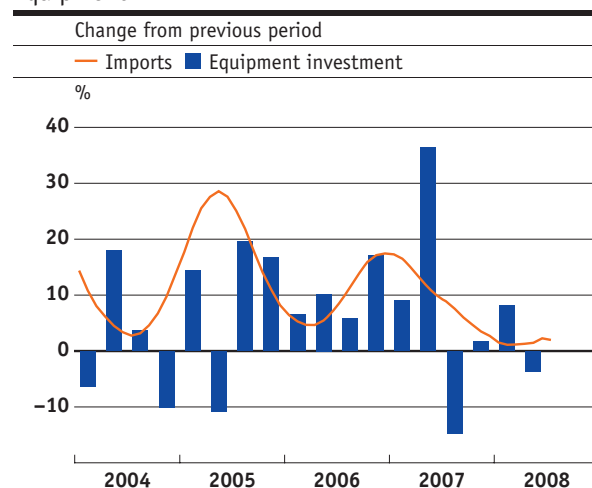
As part of the NA estimates, growth in equipment investment was revised upward in 2006 and 2007, from 8.9% to 10.0% and 7.2% to 10.9% respectively. After solid growth in the first quarter, equipment investment shrank in the second quarter by 2.5% on the previous period. According to the KOF/ETH survey, utilisation of technical capacity remained high. It is therefore to be expected that equipment investment will grow again in the coming quarters. Declining economic growth is likely to slow the pace of expansion, however.

Chart 2.7
Construction



Sources: SFSO, SECO

Chart 2.8
Equipment



Sources: FCA, SECO

2.3 Employment and labour market

The labour market continues to enjoy full employment. Many companies are still being confronted with recruitment difficulties – especially with regard to highly qualified workers. Labour demand has lost dynamism since the beginning of the year. This trend is likely to continue.

Employment growth weaker, but still robust

As expected, the labour market was less dynamic in the second quarter. At +2.1%, however, job growth remained relatively strong. Converted into full-time equivalents, the number of jobs rose by 2.4%, compared with 2.6% in the previous period (cf. chart 2.9). Growth rates are well above the long-term employment growth.

Momentum slowed in all areas of manufacturing. Employment fell in the construction industry. The service sector exhibited a mixed trend: employment in most sectors rose at a slower pace; while the number of staff fell in retail, the growth rate in the hospitality trade and in healthcare increased. Despite significantly lower value added, the employment trend in the banking sector remained positive.

The cooling of the labour market is reflected in a slowdown of immigration, which was previously brisk. This notwithstanding, foreigners still account for an above-average share of growth in the labour market. The composition of foreign labour has undergone significant change since the quotas were abolished in June 2007. Short-term residence permits were increasingly replaced by permanent permits (one year or more).

Chart 2.9
Employment

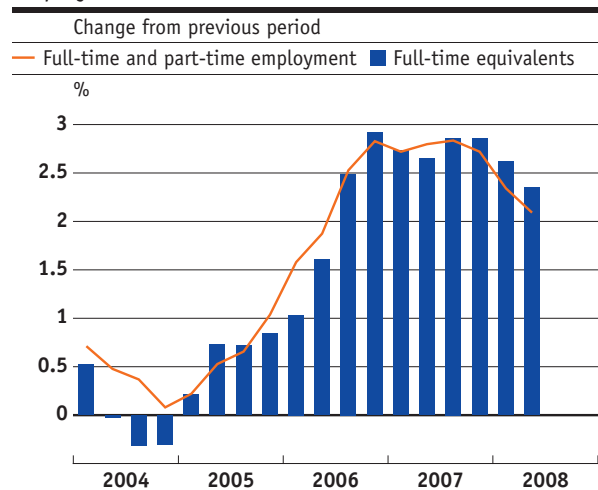


Chart 2.10
Vacancy index

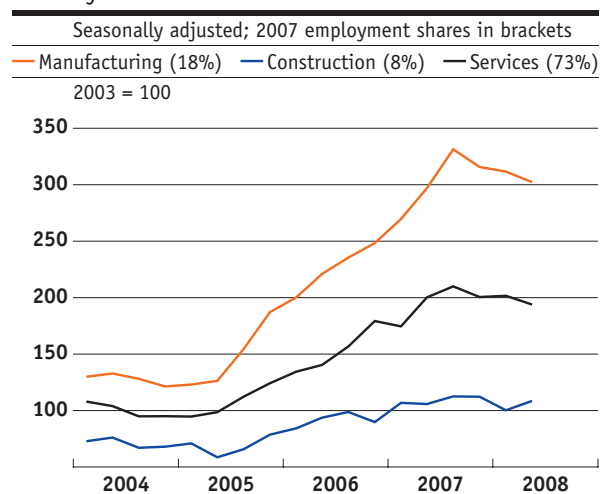
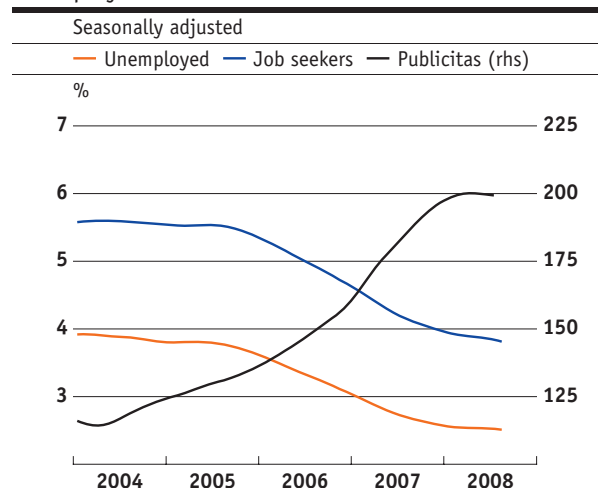


Chart 2.11
Unemployment rates and vacancies



Charts 2.9 and 2.10:
Source: SFSO

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

Slowdown expected to continue

The anticipated slowdown in economic activity is likely to hold back employment growth even more in the coming quarters. In the second quarter, the vacancies index published by the SFSO declined in most industries. In this regard, the outlook for manufacturing, in particular, worsened. The same applies to the banking and insurance sector.

Consumer sentiment stagnates at a low level

The seasonally adjusted number of unemployed persons remained at 100,000 between May and August, corresponding to an unemployment rate of 2.5%. The number of people seeking employment – which includes people on training and employment programmes or who have accepted an interim placement, as well as those registered as unemployed – also remained stable during the last eight months. At the end of August, their share came to 3.9%.

In view of the anticipated slowing of employment growth, a slight uptick in unemployment cannot be ruled out during the last few months of the year. Nevertheless, the SNB does not expect a sudden turnaround.

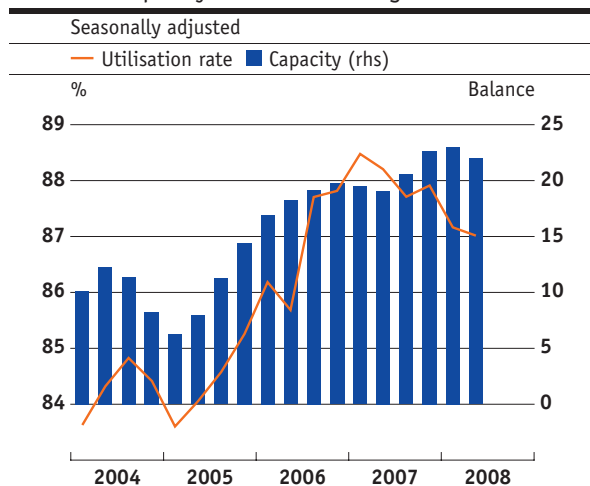
2.4 Capacity utilisation

If aggregate demand does not move in step with aggregate supply, inflationary or deflationary trends may arise. Aggregate supply – which is determined by the availability of capital and labour as well as technological progress – is relatively static in the short term. Fluctuations in demand are therefore reflected in a change in technical capacity utilisation and staffing levels. If their utilisation rate exceeds the normal level for an extended period of time, this points to excess demand and, consequently, to greater inflationary pressure. Conversely, an excess supply suggests deflationary pressure.

Technical capacity utilisation still high, but shrinking

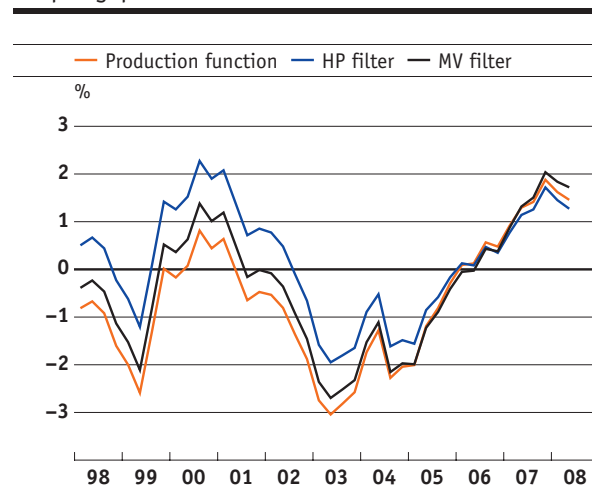
At 87%, utilisation of technical capacity in manufacturing in the second quarter still exceeded the long-term average of 84%. The KOF/ETH survey shows, however, that the utilisation rate is declining, approaching its average level (cf. chart 2.12). At the same time, the proportion of industrial companies reporting that they are hampered by insufficient technical capacity has decreased somewhat. The decline in the utilisation rate is still attributable to the substantial expansion in capacity in industry. Developments in construction were quite similar. Here too, capacity utilisation was still well above the long-term average. In both of these sectors, somewhat fewer companies registered a shortage of labour.

Chart 2.12
Technical capacity in manufacturing



Source: KOF/ETH

Chart 2.13
Output gap



Source: SNB

In the retail and hospitality trades, too, fewer companies reported that their activities were being curtailed as a result of labour shortages. Although occupancy rates in the hotel industry are down, they are still at a very high level.

Positive output gap narrowing

The output gap, which is calculated as the difference between real GDP and estimated production potential, serves as a measure of capacity utilisation in the whole economy and the associated inflationary pressure.

Chart 2.13 shows three estimates of the output gap based on different methods of estimating production potential: the production function (PF), the Hodrick-Prescott filter (HP), and the multi-variate filter (MV). All three estimates provide very similar results and suggest a growth rate of produc-

tion potential which exceeded that of real GDP of 1.5% in the second quarter. As a result, the continued positive production has narrowed. The production function shows that the production overhang was 1.5%, while using the two filter processes it came to 1.3% (HP) and 1.7% (MV).

The positive output gap is mainly a reflection of above-average utilisation of technical capacity. By contrast, since the high demand for labour is matched by corresponding labour resources, the supply of labour is now almost normal. The SNB assumes that the production gap peaked in the fourth quarter of last year and will gradually close in the next few quarters. At 2%, potential growth is likely to be somewhat higher than in its long-term average (1.6%). This is due, in particular, to a greater number of immigrant workers.

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

Table 2.2

	2007	2007	2008	2008	2008	2008	2008	2008
		Q4	Q1	Q2	May	June	July	August
Overall CPI	0.7	1.7	2.5	2.7	2.9	2.9	3.1	2.9
Domestic goods and services	1.0	1.1	1.3	1.6	1.6	1.6	1.7	1.9
Goods	0.0	0.9	1.5	1.6	1.7	1.7	1.6	1.4
Services	1.2	1.2	1.2	1.5	1.6	1.5	1.7	2.0
Private services excluding rents	0.5	0.5	0.8	1.3	1.4	1.3	1.6	1.7
Rents	2.3	2.1	1.9	2.1	2.3	2.3	2.3	2.9
Public services	1.3	1.1	1.0	0.8	0.8	0.7	0.8	0.8
Imported goods and services	0.1	3.2	5.6	5.6	6.0	6.3	6.6	5.6
Excluding oil products	-0.4	0.3	1.9	1.7	2.0	1.3	1.5	1.4
Oil products	2.4	17.1	25.0	26.2	26.9	32.8	33.4	27.5

Sources: SFSO, SNB

2.5 Goods prices

Higher inflation at wholesale level

Since April, the inflationary pressure exerted by producer and import prices on downstream consumer prices has risen overall. Although the annual inflation rate for producer prices eased down from 3.6% in April to 3.5% in August, it had been as high as 4.6% in July. Moreover, this slight decline in inflation at producer level is mainly attributable to products destined for export. The annual inflation rate for import prices advanced even more strongly; since April, it has risen from 3.6% to 4.9% (5.4% in July). By historical standards, the rate of increase in domestic producer prices in July is the highest recorded since the beginning of the 1980s. In the case of the more volatile import prices, however, we need only look as far back as 2001 to find inflation higher than the July rate.

In August, the price index for total supply, upon which the indices for producer and import prices is based, was 4.0% above the year-back level. The rise in the index was driven by price increases in energy goods (22.5%); however, the prices of consumer goods, agricultural products and intermediate goods also rose by 2–5%. The only products whose prices have experienced little change over the past year have been capital goods. Thus, at wholesale level, it has been the goods with a strong link to products in the consumer price index basket whose prices have risen particularly strongly.

Substantial rise in inflation at consumer level

Annual inflation, as measured by the national consumer price index (CPI), rose from 2.3% in April to 3.1% in July and dropped back to 2.9% in August. This mainly reflects movements in oil prices, since this has an immediate impact on heating oil and fuel prices, both of which are included in the CPI. From April to July, oil prices shot up; in August, they fell back to below the level of the previous month. Despite the recent decline in oil prices, annual inflation for oil products in August still amounted to 27.5%, which is slightly above the annual inflation for the first half of the year.

Excluding oil products, annual CPI inflation from April to August rose from 1.5% to 1.7%. This moderate rise resulted from two opposing trends: While inflation in imported consumer goods (excluding oil products) declined from 1.7% in April

Chart 2.14
Prices of total supply

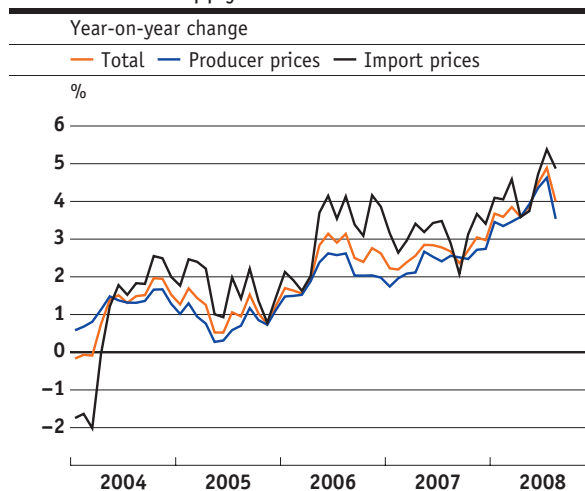


Chart 2.15
CPI: Domestic and imported goods and services

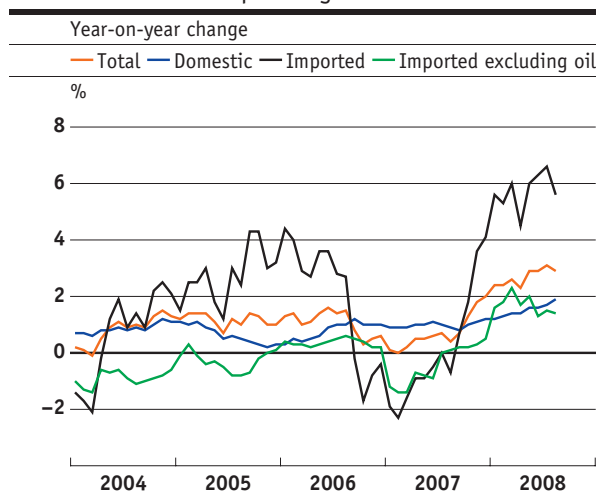


Chart 2.16
CPI: Domestic goods and services

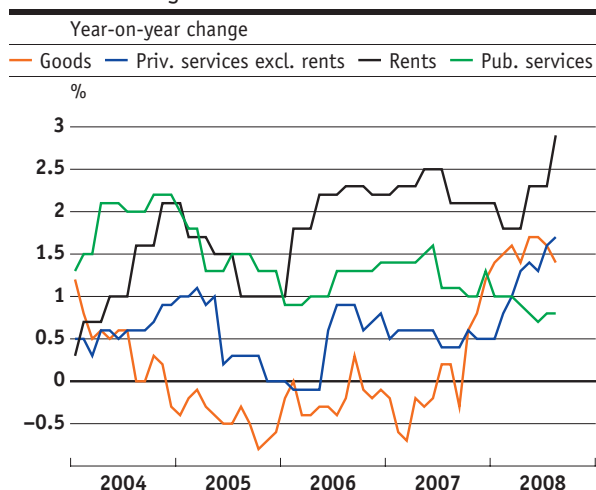


Chart 2.14:
Source: SFSO

Charts 2.15 and 2.16:
Sources: SFSO, SNB

to 1.4% in August, inflation in domestic consumer goods rose over the same time period from 1.4% to 1.9%. The increase in domestic inflation is attributable to higher price increases in the area of services. In August, the residential price index, which is compiled on a quarterly basis, was 0.5% up on the previous period. Consequently, the annual rate of rent increases rose from 2.3% in April to 2.9% in August. In the case of other private services, inflation climbed from 1.3% to 1.7%. This increase suggests that certain service sectors, such as tourism and hospitality, have been passing on the increases in food and energy prices of the past few months in their prices.

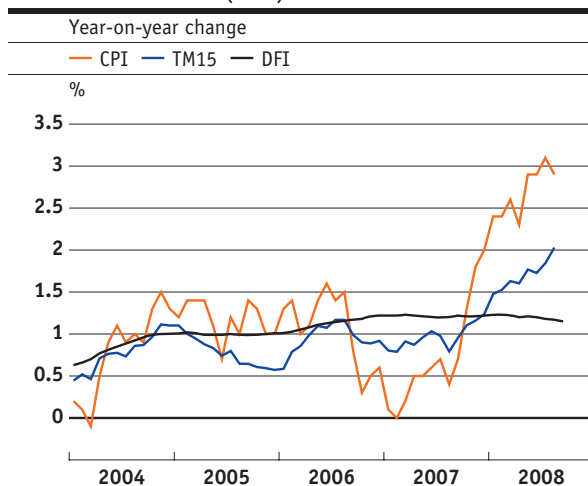
Core inflation rates reflect slightly rising inflation trend

Inflation, as measured by the CPI, undergoes numerous short-term fluctuations that may distort perceptions of the general price trend. For this reason, core inflation rates are calculated with the aim of capturing the underlying inflation trend. The SNB computes two measures of core inflation, as shown in chart 2.17. The trimmed means method (TM15) excludes from the consumer price index, for any given month, the 15% of goods prices with the

highest annual rates of change and the 15% with the lowest annual rates of change. Dynamic factor inflation (DFI), by contrast, takes into account not only prices, but also data on the real economy, financial market indicators and monetary variables. The two core inflation rates calculated by the SFSO always exclude the same goods from the commodities basket in each period (cf. chart 2.18). In the case of core inflation 1 (SFS01), these are food, beverages, tobacco, seasonal products, energy and fuel. Core inflation 2 (SFS02) also factors out products with administered prices.

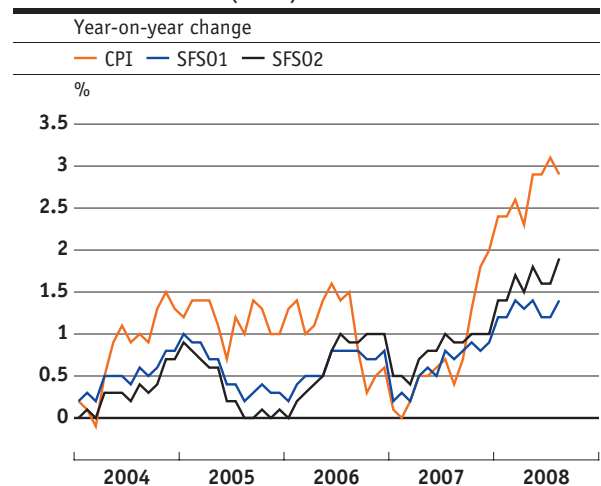
The core inflation rate calculated using the trimmed means method increased from 1.6% to 2.0% between April and August, indicating rising inflationary pressure. The two core inflation rates calculated by the SFSO also suggest that inflationary pressure is increasing. Since April, core inflation 1 has risen by 0.1% to 1.4%, while core inflation 2 is up 0.2% to 1.9%. The figures for dynamic factor inflation, however, suggest an unchanged inflationary trend with measured inflation amounting to 1.2% in August, as in April. Using this approach, the increase in inflation over the past few months may be interpreted as temporary.

Chart 2.17
Core inflation rates (SNB)



Sources: SFSO, SNB

Chart 2.18
Core inflation rates (SFSO)



Source: SFSO

3 Monetary developments

3.1 Interest rates and inflation expectations

At its monetary policy assessment on 19 June 2008, the SNB decided to leave the target range for the three-month Libor unchanged at 2.25–3.25% and to aim for the middle of the target range as in the past. This decision was taken in the context of a slowing economy, with inflationary pressure high in the short term but easing off in the medium term.

Since 24 April 2008, the one-week repo rate had been set at 1.9%, while the three-month Libor had trended slightly above 2.75%, which is the mid-point of the target range. However, from 4 to 18 June, in particular, the three-month Libor climbed well above the middle of the target range. This suggests that, at the time, some market participants were expecting that the target range would be raised. Following the monetary policy assessment on 19 June, the three-month Libor gradually retreated, approaching the targeted level of 2.75%.

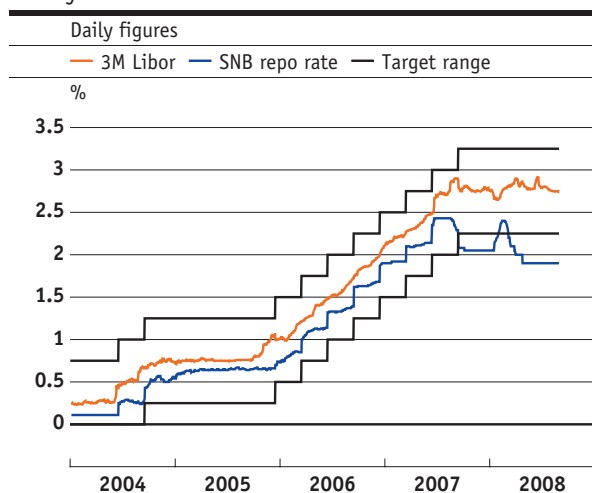
Movements in the three-month Libor mainly reflected changes in expectations about the future path of short-term interest rates, rather than changes in risk premia. The size of risk premia (which mainly constitute credit and liquidity risks)

can be ascertained by measuring the difference between the rates for the three-month Libor and the related overnight index swap (OIS). The three-month Libor is the interest rate on unsecured credits between banks, while the OIS is the comparable rate for secured credits. During the period before and after the quarterly assessment of 19 June, the difference between these two rates of interest remained unchanged at around 65 basis points (cf. chart 3.2).

International measures aimed at increasing liquidity

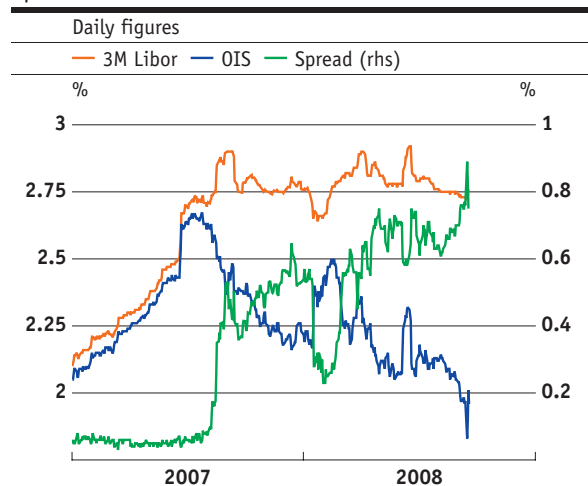
On various occasions, central banks took steps to ease credit shortages in the international inter-bank market. Shortly before the monetary policy assessment on 13 March, the Bank of Canada, the Bank of England, the ECB, the US Federal Reserve System (Fed) and the SNB announced that they would continue the action taken in the previous December and January to ease tensions on the international money markets. On 25 March and 22 April, in consultation with the Fed, the SNB conducted repo auctions in US dollars against securities eligible for SNB repos. Each operation was for an amount of USD 6 billion, with a term of 28 days. The aim was to give SNB counterparties easier access to US dollar liquidity. On 2 May, the Fed, the ECB and the SNB announced that they would be stepping up their liquidity operations in US dollars. From then on, the SNB held repo auctions in US

Chart 3.1
Money market rates



Sources: SNB, Reuters

Chart 3.2
Spread between 3M Libor and OIS



Sources: SNB, Reuters

dollars fortnightly instead of monthly, as before. The amount and the term remained unchanged. Further auctions were held on 6 May, 20 May, 3 June, 17 June, 1 July, 15 July and 29 July.

On 30 July, the Fed, the ECB and the SNB again announced a further enhancement of their operations to provide US dollar liquidity. Alongside the existing US dollar operations, dollar liquidity was to be made available for a longer term. Specifically, the SNB decided to offer liquidity once every two weeks, alternating between a maximum amount of USD 2 billion for 84 days and a maximum amount of USD 6 billion for 28 days. Consequently, as of 12 August 2008, the SNB was also conducting auctions for US dollar liquidity with a term of 84 days. During a transition period in August and September 2008, it reduced the outstanding volume of transactions with a 28-day term and increased the outstanding volume of transactions with an 84-day term proportionately. The SNB planned to make US dollar liquidity available for as long as it considered this to be necessary. The maximum total amount remained unchanged, at USD 12 billion. All repo auctions have been oversubscribed so far.

Additional liquidity due to worsening of financial crisis

On 15 September, a new climax was reached in the destabilisation of the financial markets – a process triggered by the sub-prime crisis more than a year ago. An extraordinary concentration of events – the collapse of the US investment bank Lehman Brothers, the acquisition of Merrill Lynch by Bank of America and the plummeting of share prices in the US insurer AIG (American International Group), which was granted a two-year loan of up to USD 85 billion by the Fed – led to substantial stock market losses worldwide. The Fed, together with European central banks and the Bank of Japan, provided the financial markets with liquidity in order to calm the tensions on the interbank market. In addition to its normal one-week repo auction, the SNB also conducted an overnight auction, its first since 22 February. Both facilities were offered at a rate of 1.9%. Despite the additional supply of liquidity by the SNB, the difference between the three-month Libor and the OIS widened from 65 basis points to over 75. During the days that followed, the central banks stepped up their liquidity assistance in order to calm the financial crisis. In consultation with the Fed, the SNB

Chart 3.3

Three-month interest rate futures

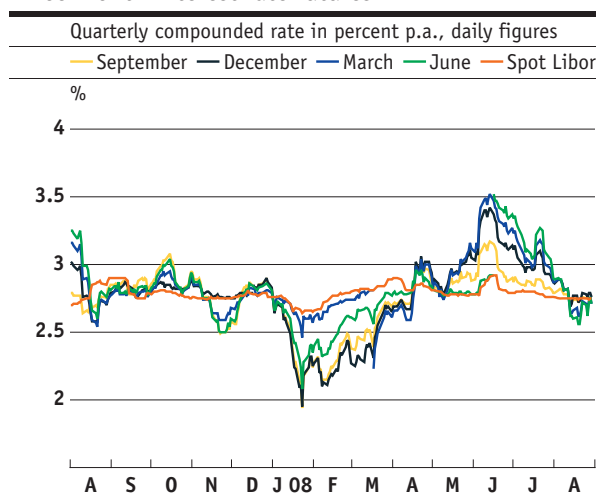


Chart 3.4

Term structure of Swiss Confederation bonds

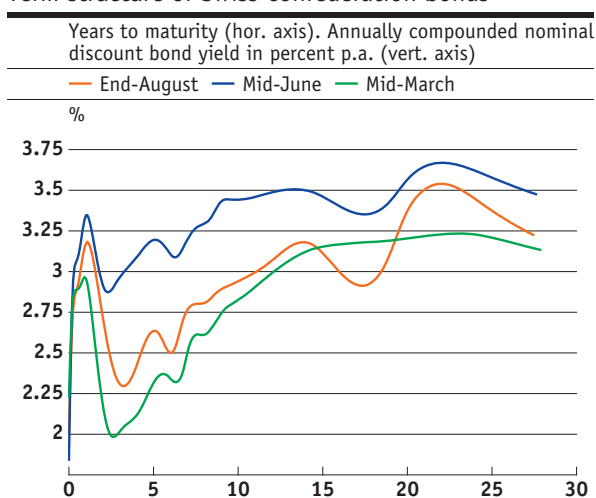


Chart 3.5

Swiss Confederation bond yields

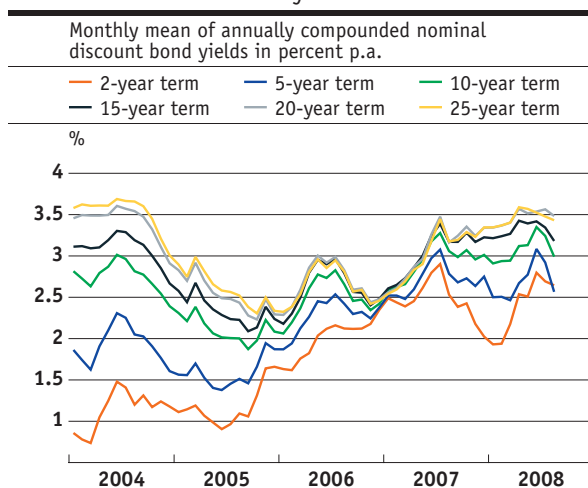


Chart 3.3:
Sources: Bloomberg, SNB

Charts 3.4 and 3.5:
Source: SNB

decided to increase its repo auctions in US dollars. It is holding US dollar repo auctions with a term of 1 day (overnight) on a daily basis, for an amount of up to USD 10 billion. The volume of the outstanding US dollar repo transactions with a term of 28 days is being increased from USD 6 billion to USD 8 billion and the volume of repo transactions with a term of 84 days from USD 6 billion to USD 9 billion. The maximum total amount outstanding for all terms is now USD 27 billion, as compared to the previous USD 12 billion.

Unchanged three-month Libor expected

Until 15 September, implied interest rates in Switzerland for all futures contracts on the three-month Libor maturing between September 2008 and September 2009 remained unchanged until the end of the year. In other words, it was expected that interest rates would be only slightly below the middle of the target range (2.75%). Following the worsening in the financial crisis in the US on 15 September, however, all futures contracts on the three-month Libor maturing between March 2009 and December 2009 showed interest rates falling by 25 basis points.

Lower long-term interest rates

The entire interest rate curve has shifted downwards. In mid-August, yields on Swiss Confederation bonds with maturities of at least two years were considerably lower than in June (cf. chart 3.4). For a five-year maturity, they were 2.5%; for a ten-year maturity, 2.9%; for a twenty-year maturity, 3.4%. It is probable that the decline in interest rates is primarily attributable to two factors. First, oil and commodity prices have eased considerably, and as a result, inflation expectations are likely to have receded somewhat. Second, the decline in interest rates may be due to the global economic downturn. The sharp decline in share prices in mid-September caused investors to retreat into government bonds. Consequently, the prices of ten-year US treasury bonds increased. Swiss Confederation bonds and German government bonds also recorded price gains. Capital market yields declined accordingly (cf. chart 3.8).

Apart from inflation expectations and (risk-free) real rates of interest, interest rates also reflect a premium component that compensates the liquidity and credit risk. The credit risk premium on manufacturing bonds is generally ascertained by measuring the interest rate spread with respect to

Chart 3.6

Spread of five-year manufacturing bonds

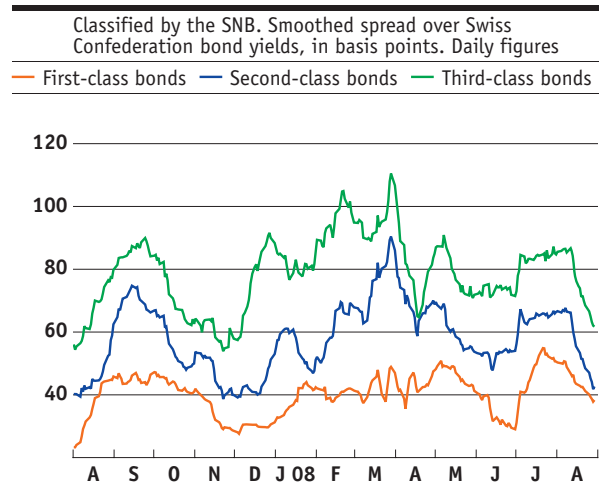


Chart 3.7

International short-term interest rates (three months)

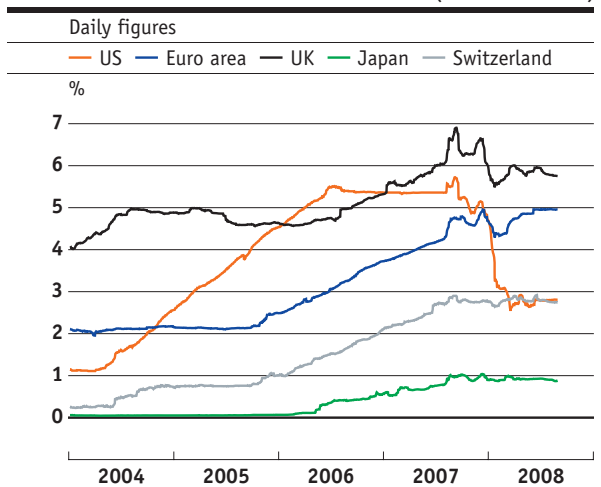


Chart 3.8

International interest rates

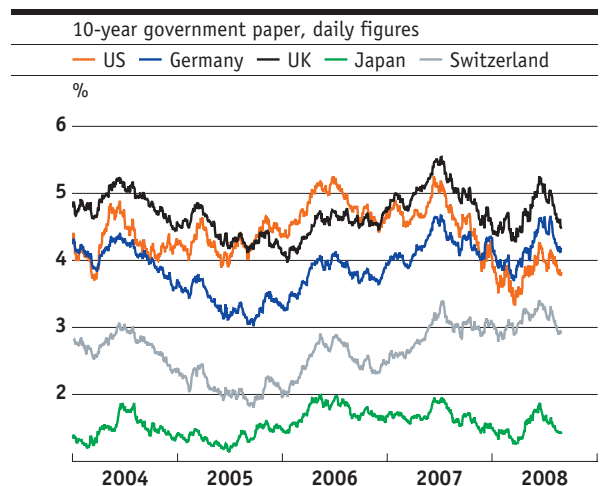


Chart 3.6:
Source: SNB

Chart 3.7:
Sources: Reuters, SNB

Chart 3.8:
Sources: SNB, Thomson Datastream

Swiss Confederation bonds. This spread compensates investors for the risk that the company might become insolvent during the term of the bond. Chart 3.6 shows the interest rate spread for five-year corporate bonds issued by prime, medium and low-grade borrowers. This shows that, compared to the first half of 2007, credit risk premia remain relatively high as a result of the continuing financial market turmoil.

Slight change in interest differentials

In the second quarter of 2008, interest differentials between Swiss franc investments and those in US dollars or euros widened in the money market (cf. chart 3.7). Yield differentials also widened in the capital market (cf. chart 3.8). Since the last monetary policy assessment, interest differentials in the money market have widened slightly, but have narrowed in the US capital market and remained unchanged in the German capital market.

Continued reduction in the short-term real interest rate

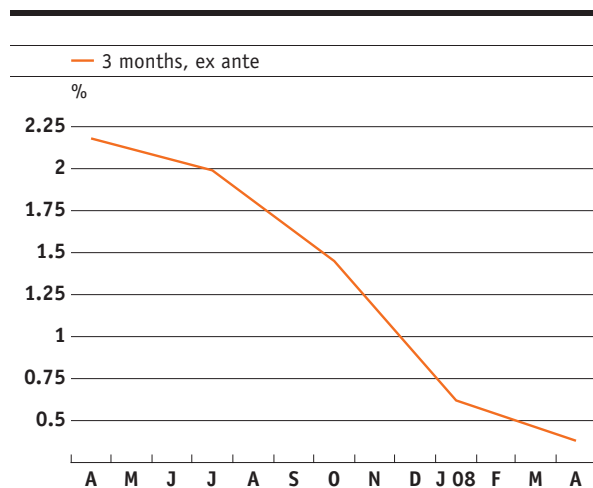
The real interest rate is a key determinant in the savings and investment behaviour of companies and households and is thus extremely important for

future business cycle development. Chart 3.9 shows movements in the three-month real interest rate. This rate is defined as the difference between the three-month Libor and the expected rise in consumer prices during the period in question. These inflation expectations are an average of the forecasts obtained from various models. At 0.4%, the real interest rate measured in this way was lower in the second quarter of 2008 than in the previous quarter. Elevated inflation expectations were responsible for this decline.

This picture of higher short-term inflation expectations confirms the results of SECO's household survey on consumer sentiment. While in the previous quarter 10% of respondents had been expecting substantial price increases in the coming 12 months, this figure had risen to over 20% in August. The proportion of respondents expecting stable prices fell by about the same amount (cf. chart 3.10).

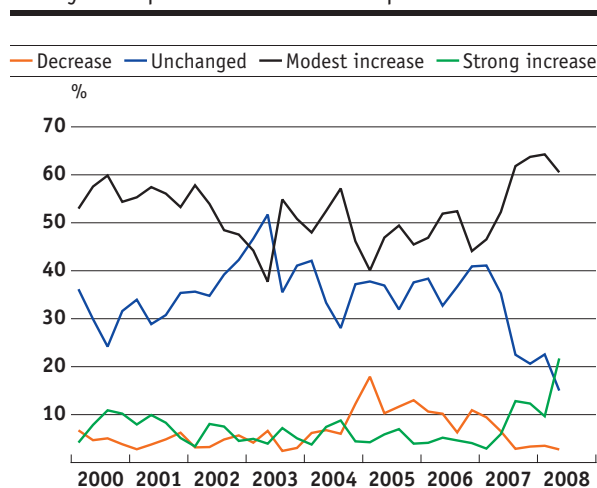
The real interest rate also declined for medium-term maturities, although only by a small amount. Thus, the three-year real rate of interest declined from 1.2% to 0.9%. The lower real interest rates experienced recently are currently having a stimulating effect on the economy.

Chart 3.9
Estimated real interest rate



Source: SNB

Chart 3.10
Survey on expected movements in prices



Sources: SECO, SNB

3.2 Exchange rates

Appreciation of the dollar

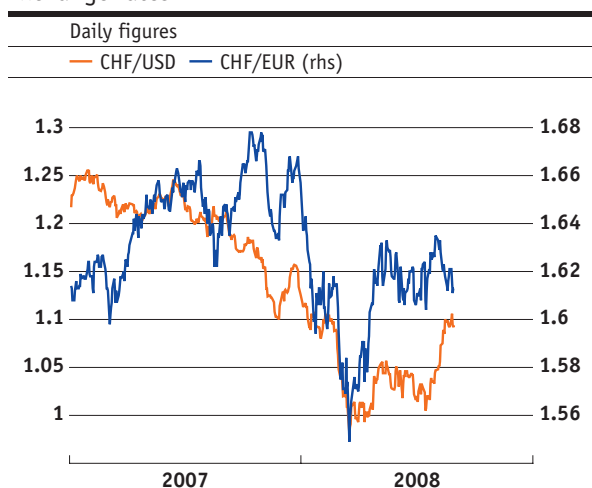
Since the quarterly assessment of 19 June, the US dollar has advanced considerably against most major currencies, in particular against the euro (8.5%) and the Swiss franc (7.5%). The appreciation of the dollar has been most marked since mid-July.

The most important factor in the rise of the dollar has probably been the expectation of a reduced interest rate differential between the euro area/Switzerland and the US. It is possible that the surprisingly gloomy economic indicators for the euro area since the beginning of July, and in particular the negative GDP growth figure for the second quarter have contributed to this development. The Swiss franc experienced a period of weakening, also against the euro, but firmed up again after end-July/early-August. In mid-September, the Swiss franc was trading at 1.58 CHF/EUR against the euro. During the current year, this level has only been reached in March and April. Since the last quarterly assessment, the appreciation of the Swiss franc against the euro has amounted to 1.3%.

Increase in the real exchange rate

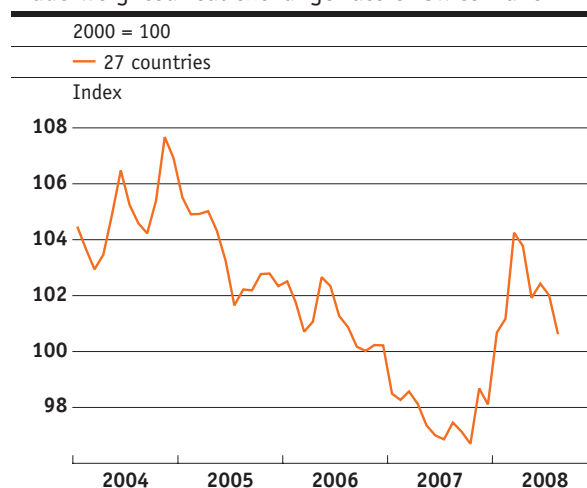
The trade-weighted real external value of the Swiss franc has been rising since autumn 2007. In July, it was 4% higher than the average for 2007 and close to the average that prevailed for very many years. The real external value of the Swiss franc takes account of the varying price developments in different currency areas. In the case of the trade-weighted real external value, bilateral real exchange rates are weighted by the relevant shares of Swiss exports and imports.

Chart 3.11
Exchange rates



Source: SNB

Chart 3.12
Trade-weighted real exchange rate of Swiss franc



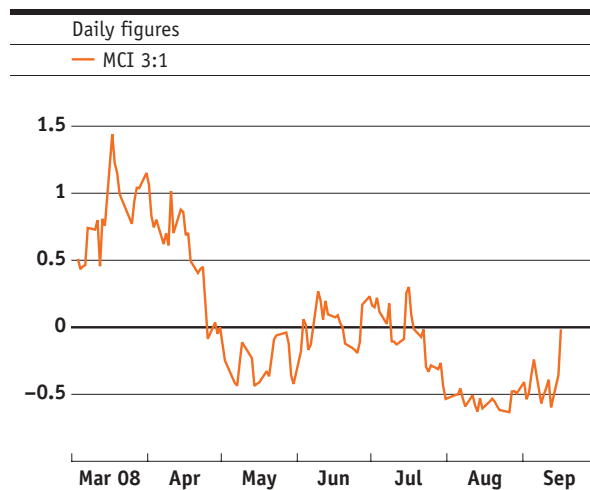
Source: Bank for International Settlements

Unchanged monetary conditions

The Monetary Conditions Index (MCI) combines the three-month Libor and the trade-weighted nominal value of the Swiss franc to provide a measure of the monetary conditions with which businesses in Switzerland have to contend. The MCI is reset to zero immediately after each monetary policy assessment. An increase to positive values (decline to negative values) signifies a tightening (loosening) of monetary conditions (cf. box, 'The Monetary Conditions Index (MCI)', *Quarterly Bulletin*, 1/2004, p. 27).

The latest MCI figures show that there has been practically no change in monetary conditions. This reflects, on the one hand, the nominal depreciation of the Swiss franc against the US dollar and the currencies tied to the dollar, and, on the other hand, the strengthening of the Swiss franc against the euro.

Chart 3.13
MCI nominal



Source: SNB

3.3 Equity, commodity and real estate prices

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

Falling prices and high volatility on stock markets

Since the quarterly assessment on 19 June 2008, international stock markets have recorded losses. Share prices are substantially lower than they were at the end of 2007. The Swiss Performance Index (SPI) lost a total of 21%. Breaking down the individual components of the SPI by size of company, it emerges that large companies lost 7% between mid-June and mid-September, while medium-sized companies fell back by 9%. By sector, the greatest setbacks were suffered by manufacturing (-27%) and banks (-23%).

While pressure on investment banks remained high around the world, the Swiss banking sector succeeded in limiting its losses. Chart 3.16 shows the expected volatility over the next 30 days based on the Chicago Board Options Exchange Volatility Index (VIX) and the realised volatility measured as the annualised standard deviation in monthly returns on the SPI and S&P 500. Volatility remained relatively high, a clear sign of sustained uncertainty among market participants. An uncertain outlook for the business cycle and inflation make forecasts of companies' growth and profit prospects more difficult. According to the latest surveys, lending conditions are being continually tightened, especially in the US. This should maintain pressure on the US real estate market and lead to a further decline in investment and consumption.

Chart 3.14
Stock prices

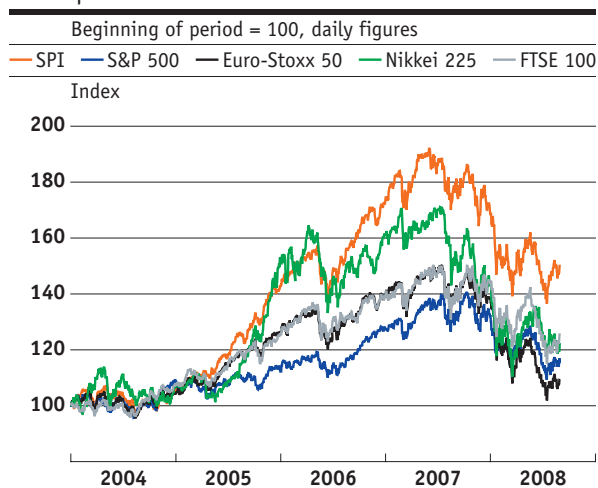


Chart 3.15
Selected SPI sectors

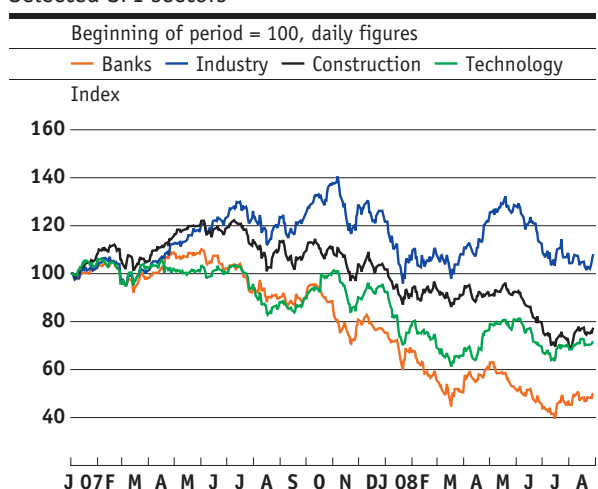


Chart 3.16
Volatility of equity returns

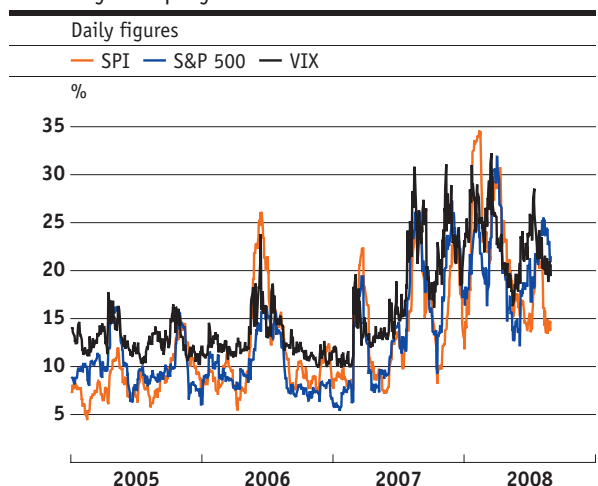


Chart 3.14:
Sources: Bloomberg, Thomson Datastream

Chart 3.15:
Source: Thomson Datastream

Chart 3.16:
Sources: SNB, Thomson Datastream

At the beginning of September, the US government announced a rescue plan for the two mortgage lenders, Fannie Mae and Freddie Mac, thereby triggering a temporary price rally on stock markets worldwide. The recovery was driven primarily by the major price advances recorded by financials. Nevertheless, the major share indices worldwide lost considerable ground in mid-September immediately after receiving news of the crisis in the US. The Dow Jones Industrial fell by 504 points (4.4%), one of the biggest drops in a single day ever recorded in the history of the index. The SPI lost 3%. Losses of between 3% and 4% were also experienced in other European countries. The pattern of falling prices continued during the days that followed. Banking and insurance shares suffered most.

Commodity prices fall

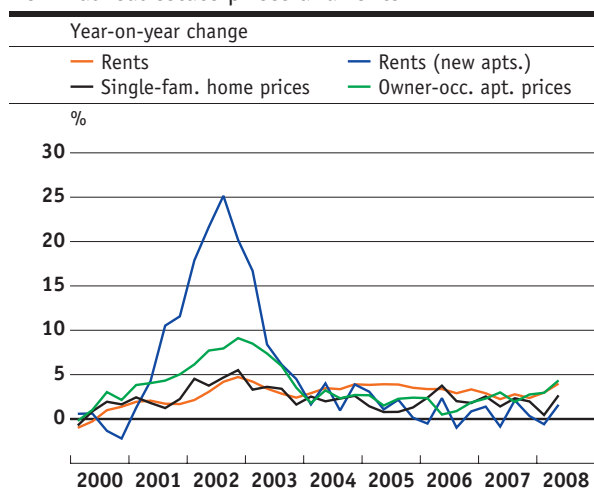
From mid-June to mid-September, the Goldman-Sachs Commodity Index plunged 29%, mainly due to a drop in energy prices (-33%). The oil price fell substantially from its peak level of over USD 145 per barrel of Brent crude at the beginning of July to USD 90 in mid-September. This is the lowest price for oil since January 2008. Other commodities also recorded a decline, although to a lesser extent. Agricultural produce dipped by 22%, while precious and industrial metals trended downwards. An

important reason for the falling prices were expectations that the demand for commodities and energy would decline due to slowing international economic growth. The latest increase in the value of the US dollar from its record lows also reduced the upward pressure on oil prices. Moreover, it is not impossible that the previous price increase was boosted by speculation.

Increase in real estate prices

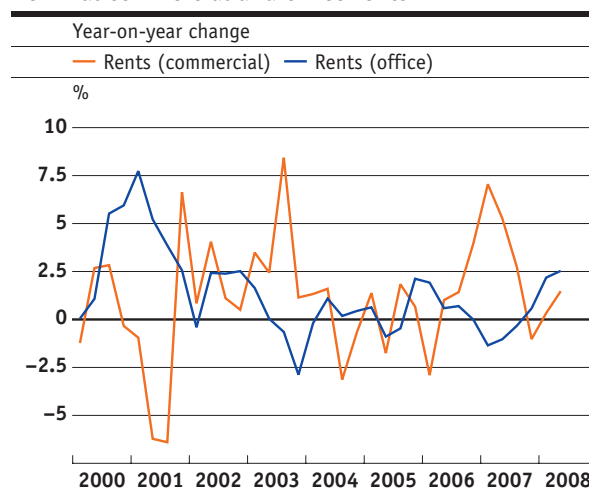
Nominal prices in the real estate market rose strongly in the second quarter as compared to the same quarter in 2007. Prices for owner-occupied apartments were up 4.3% in nominal terms, while those of single-family homes rose by 2.6%. The cost of rented apartments – which represent the largest segment in the Swiss residential market – rose by 3.9%. Rental costs for new apartments, which are a better reflection of market forces, were up by 1.6%. The cost of renting business property also increased. In some areas, prices in the real estate market rose more strongly than those of consumer goods, even if the difference was only moderate. There are still no indications of a speculative bubble in the Swiss real estate market. One reason for the notable increase in the price of real estate is the strong rate of population growth.

Chart 3.17
Nominal real estate prices and rents



Source: Wüest & Partner

Chart 3.18
Nominal commercial and office rents



Source: Wüest & Partner

3.4 Monetary aggregates

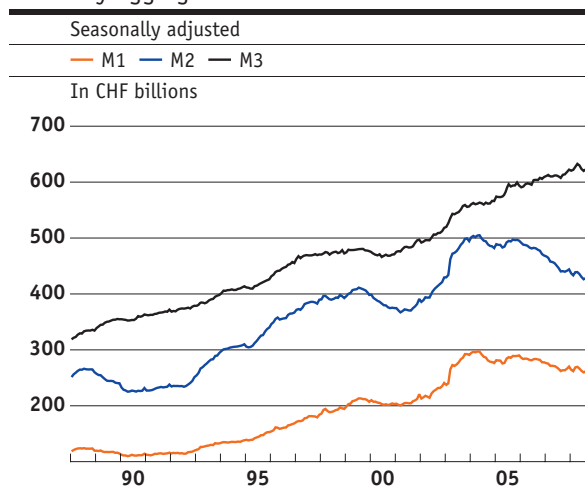
Stabilisation of monetary aggregates

As shown in chart 3.19, both M1 (notes and coin in circulation, sight deposits and transaction accounts) and M2 (M1 plus savings deposits) have been declining since early 2006, but have been relatively stable during the recent period. In August 2008, M1 was 0.2% below the year-back level, while M2 was 2.8% down. By contrast, M3 (M2 plus time deposits) expanded slightly, by 2.5%. As in the late 1980s/early 1990s and also in the late 1990s/early 2000s, the lower/negative rate of growth in the money aggregate reflects an increase in the rate of interest.

In 2003–2005, the growth rate of the money aggregates had been high; subsequently, the rise in the rate of interest led to a decline in the M1 and M2 aggregates. Both of these money stocks have stabilised again recently, corresponding to the flatter path of short-term interest rates. One way of assessing potential inflationary risks emanating from an excessive supply of liquidity to the economy is to calculate a money gap or monetary overhang. This corresponds to the positive deviation (monetary overhang) or negative deviation (money gap) of the actual M3 aggregate from an equilibrium value which is calculated on the basis of the transaction volume in the economy and the opportunity cost of holding money (cf. box, 'Money supply growth and inflation', *Quarterly Bulletin*, 1/2005, p. 33).

Chart 3.20 shows the percentage deviations of the M3 aggregate from the calculated equilibrium value. In order to take account of statistical uncertainty, the money gap is presented as a range that spans one standard deviation. If the range is below the zero line, as is currently the case, this indicates an expectation of lower price pressure in the medium term. For some months there has been a money gap similar to the situation seen at the start of 2000. The money gap at that time resulted in a fall in the level of inflation, following an increase at the end of the 1990s.

Chart 3.19
Monetary aggregates



Source: SNB

Monetary aggregates¹

Table 3.1

	2006	2007	2007			2008		2008		
			Q2	Q3	Q4	Q1	Q2	June	July	August
Monetary base²	43.1	44.2	44.0	43.4	44.8	45.8	45.4	45.6	45.5	45.0
<i>Change³</i>	3.0	2.5	1.5	2.7	2.7	2.6	3.3	3.7	4.3	3.4
M1²	282.4	268.9	269.8	261.3	268.7	266.4	265.3	260.1	256.2	259.3
<i>Change³</i>	-0.6	-4.8	-4.3	-6.8	-4.4	-3.4	-1.7	-2.6	-2.4	-0.2
M2²	481.6	450.5	453.9	439.0	443.5	438.7	434.3	427.6	421.8	425.3
<i>Change³</i>	-2.0	-6.4	-6.1	-8.0	-6.5	-5.8	-4.3	-4.6	-4.5	-2.8
M3²	600.3	612.8	611.9	607.0	618.8	625.2	629.3	621.0	616.3	619.7
<i>Change³</i>	2.5	2.1	2.4	1.1	1.8	1.9	2.8	1.9	1.6	2.5

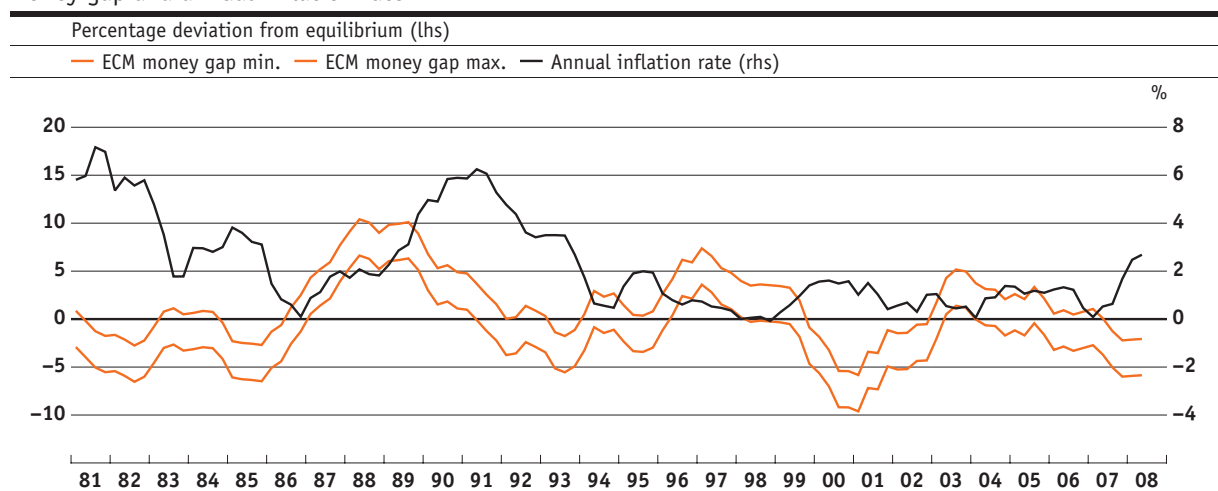
1 1995 definition

2 Level in CHF billions

3 Year-on-year change in percent

Source: SNB

Chart 3.20
Money gap and annual inflation rate



Source: SNB

3.5 Credit

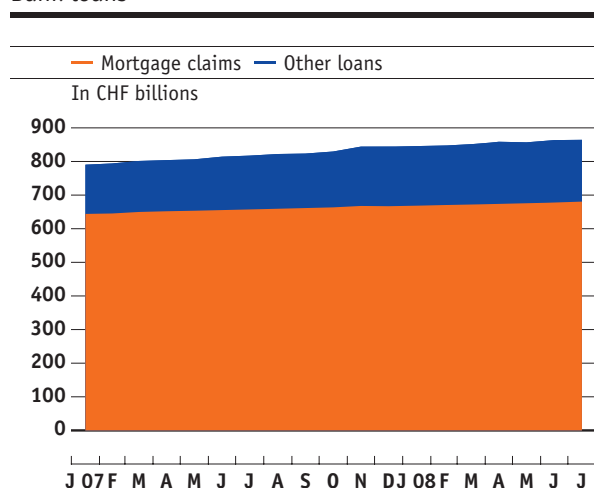
No credit crunch in Switzerland

To date, the data on credit does not suggest that there has been any credit crunch in Switzerland. The bank lending survey conducted by the SNB confirms this finding, showing that there has been no tightening in credit conditions for Switzerland. This differs from the situation in, for example, the US.

As chart 3.21 shows, movements in Swiss credit volume have been steady since 2007. In the second quarter, annual growth slowed to 6.4%, as compared to 6.6% in the first quarter. The growth rate for mortgages and other credits also eased slightly (cf. table 3.2).

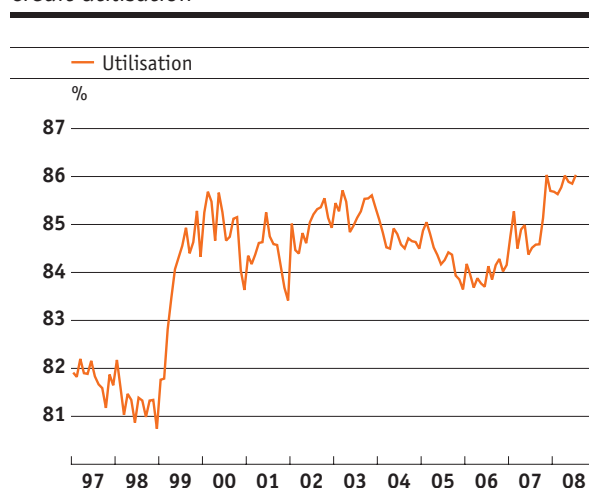
Not even an in-depth analysis reveals any real problems in the credit market overall. Specific developments have included a shift to secured loans, which increased by 5.7%, following zero growth in the first quarter. At the same time, expansion in unsecured loans slowed from 34.1% to 28.2%. Both of these developments could be indicators of an increased level of risk aversion on the part of banks. Finally, chart 3.22 shows a slightly higher drawdown of lines of credit. This could either be the first sign of a decline in the supply of credit or it could point to a continued demand for credit. Experience has shown that developments of this kind need to be observed for several months before definite conclusions can be drawn.

Chart 3.21
Bank loans



Source: SNB

Chart 3.22
Credit utilisation



Source: SNB

Bank loans
Year-on-year change in percent

Table 3.2

	2006	2007	2007			2008		2008		
			Q2	Q3	Q4	Q1	Q2	May	June	July
Total¹	4.8	5.8	5.3	5.5	6.9	6.6	6.4	6.3	6.0	5.7
Households ²	6.1	4.6	5.0	4.4	4.0	3.0	2.2	1.8	2.2	2.3
Companies ²	1.6	6.7	4.5	6.6	11.6	13.9	14.9	15.5	13.7	12.7
Mortgage claims ¹	4.8	4.0	4.2	3.8	3.9	3.7	3.4	3.4	3.4	3.6
of which households ²	5.5	4.3	4.8	4.0	3.7	3.6	3.0	2.9	3.0	3.6
of which companies ²	1.2	2.3	1.2	3.0	4.3	3.7	4.2	4.5	4.7	3.5
Other loans ¹	4.6	13.4	10.3	13.1	20.2	19.3	19.0	18.7	16.8	14.5
of which secured ¹	2.5	8.2	7.2	5.6	13.1	0.0	5.7	5.0	5.1	6.1
of which unsecured ¹	6.3	17.2	12.6	18.6	25.3	34.1	28.2	28.2	24.7	19.9

1 Monthly balance sheets

2 Credit volume statistics

Source: SNB

4 SNB inflation forecast

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

4.1 Assumptions for global economic developments

Alongside domestic factors, exogenous effects have a major influence on Swiss inflation rates. Various models used in drawing up the SNB's inflation forecast take this into account by embedding the expected outlook for Switzerland in an international economic setting. The assumptions with regard to the international economic scenario reflect what

the SNB considers to be the most likely development in the global economy over the next three years. Table 4.1 shows the major assumptions for this scenario, as compared to those for the June forecast.

Forecast continues to assume weaker growth

Due to a relaxation in monetary policy and a temporary stimulation from fiscal policy, the forecast for growth in the US in 2008 has been revised upwards, as compared to the June forecast. For 2009, however, a considerable weakening in growth may be expected as a result of the continuing turbulence in the US real estate market and the international financial markets. In Europe, the indications of a slowdown have increased. Consequently, the forecasts for 2008 and 2009 have been sharply revised downwards. Growth is expected to approach the potential figure of approximately 3% (US) and 2% (EU) towards the end of the forecast period.

In the forecast scenario, the oil price is held constant at an almost unchanged price of USD 115 per barrel. Converted into Swiss francs, however, this represents an increase in the assumed oil price, from CHF 120 in the June forecast to CHF 128. For the current year, higher consumer inflation rates are being forecast worldwide. This is mainly attributable to the recent surge in energy prices. The dollar/euro exchange rate is set at 1.49 USD/EUR for the forecast period, as compared to 1.55 USD/EUR in the previous forecast.

Inflation forecasting as part of the monetary policy strategy

The SNB has a statutory mandate to ensure price stability while taking due account of economic developments.

The SNB has specified the way in which it exercises this mandate in a three-part monetary policy strategy. First, it regards prices as stable when the national consumer price index (CPI) rises by less than 2% per annum. This allows it to take account of the fact that the CPI slightly overstates actual inflation. At the same time, it allows inflation to fluctuate somewhat with the economic cycle. Second, the SNB summarises its assessment

of the situation and of the need for monetary policy action in a quarterly inflation forecast. This forecast, which is based on the assumption of a constant short-term interest rate, shows how the SNB expects the CPI to move over the next three years. Third, the SNB sets its operational goal in the form of a target range for the three-month Swiss franc Libor. The target range provides the SNB with a certain amount of leeway, enabling it to react to unexpected developments in the money and foreign exchange markets without having to change its basic monetary policy course.

Assumptions for inflation forecasts

Table 4.1

September 2008	2008	2009	2010
GDP US ¹	1.8	1.3	2.8
GDP EU15 ¹	1.3	0.9	2.1
		Short term	Long term
Exchange rate USD/EUR ²		1.49	1.49
Oil price in USD/barrel ²		113	115
Oil price in CHF/barrel ³		126	128

June 2008	2008	2009	2010
GDP US ¹	1.4	1.6	2.8
GDP EU15 ¹	1.8	1.5	2.4
		Short term	Long term
Exchange rate USD/EUR ²		1.55	1.55
Oil price in USD/barrel ²		128	116
Oil price in CHF/barrel ⁴		133	120

1 Change in percent

2 Level

3 Level, exchange rate on 3 September 2008

4 Level, exchange rate on 4 June 2008

Source: SNB

4.2 Inflation forecast and monetary policy decision

At its monetary policy assessment of 18 September 2008, the SNB decided to leave the target range for the three-month Libor unchanged at 2.25–3.25%. This decision was based on the inflation forecast made in September and explained in the press release as follows.

Global economic outlook

The international economy has a strong impact on the Swiss economic outlook. Consequently, the inflation forecasts are based on assumptions with regard to the future path of the global economy. The SNB has revised its June assumptions in two areas. First, it is now assuming a weaker economy for the remainder of 2008, both in the US and in Europe, with the recovery expected for 2009 and 2010 to be delayed. Second, the SNB now predicts a less marked drop in inflation in the US and Europe next year than it had expected three months ago.

Swiss economic outlook

Turning to Switzerland, economic developments in recent months have been in line with SNB expectations. In the second quarter of the year, real GDP growth was slightly below its medium-term potential. The slowdown in financial activity continues to weigh on growth. Manufacturing and construction, however, are recording a more substantial decrease, although in most cases the initial point of departure was a very high level of activity. Therefore, even though capacity utilisation rates have fallen slightly and staff shortages have become less acute, it is still true to say that capacity utilisation remains at levels above the historical norm.

For the second half of 2008 and the beginning of 2009, the SNB forecasts a continuation of the economic downturn. Consequently, the positive output gap should gradually close. The SNB is leaving its forecast of real GDP growth of 1.5–2% for 2008 unchanged. Following the upward revision in the level of GDP for 2007, it is more likely that the final growth figure for 2008 will be located in the upper part of this range.

Monetary and financial conditions

Monetary conditions are almost unchanged as compared to the situation at the June assessment. Despite the turbulence in the financial markets, the

Swiss franc has remained relatively stable. The yield on Confederation bonds – largely determined by interest rate movements in international financial markets – have fallen for all maturities, reflecting the deterioration in the global economic outlook and the heavy demand for the highest-quality securities. Risk premia on interbank markets remain high because of the financial crisis. The SNB's choice of the three-month Libor as the objective it aims to stabilise, rather than the rate for secured interbank loans, means, however, that it continues to shield the Swiss economy to a very considerable extent from the fluctuations in these premia.

For the time being, the financial crisis is having no impact on the granting of domestic loans. The rate of growth of mortgage loans attained 3.6% in July. However, as is generally the case towards the end of a business cycle, the rate of growth of other loans – particularly that of unsecured loans – appears to be slowing. Turning now to lending standards, a survey of 20 banks representing 85% of the domestic credit market, which was conducted by the SNB in July, confirmed that the sub-prime crisis has not led to a deterioration in credit conditions in Switzerland. These results differ from those obtained in similar surveys in the US and the euro area.

Since the beginning of 2006, growth rates of the monetary aggregates have been moderate or even negative, which also means that low inflation rates can be expected in the medium and long term.

Inflation and inflation risks

Since December, inflation has been above the 2% mark. The fact that the economy was operating at very high capacity levels last year facilitated the pass-through of oil price rises to consumer prices. The fall in oil prices since July has not yet triggered a substantial drop in the rate of inflation, which amounted to 2.9% in August, after reaching 3.1% in July.

The outlook with respect to inflation remains essentially unchanged. Inflation is likely to continue retreating next year, due to the fall in oil prices in recent months and the forecast slowdown in economic activity. Thus, the current level of inflation is of a temporary nature.

The changes made to the inflation forecast since the June assessment represent, in essence, a technical update. Forecast inflation is slightly higher and more persistent, but the medium-term outlook remains essentially the same.

This inflation forecast involves particular uncertainties. These relate mainly to the assumptions on the outlook for the international economy. Moreover, it is difficult to estimate the extent, duration and impact of the international financial crisis. Finally, it is not possible to precisely assess how inflation will react to the economic slowdown. Due to the high level of demand, the fact that productive resources are currently fully employed, and the continuing high cost of commodities and intermediate products, there is a risk that inflation could decline less rapidly than currently forecast.

Monetary policy decision

The inflation forecast shows that the rate of inflation will drop back below the 2% mark in 2009. The current level of inflation is no more than transitory, since the expected economic slowdown will exert a moderating effect and the impact of the high oil prices will ease off gradually over time. Consequently, medium-term price stability is ensured. Moreover, in view of the major uncertainties relating to both the global economy and the fallout from the international financial crisis, the SNB considers that a prudent attitude is appropriate and that the current monetary policy course should be retained. Nevertheless, the high level of inflation at present requires that the SNB remain vigilant. A renewed

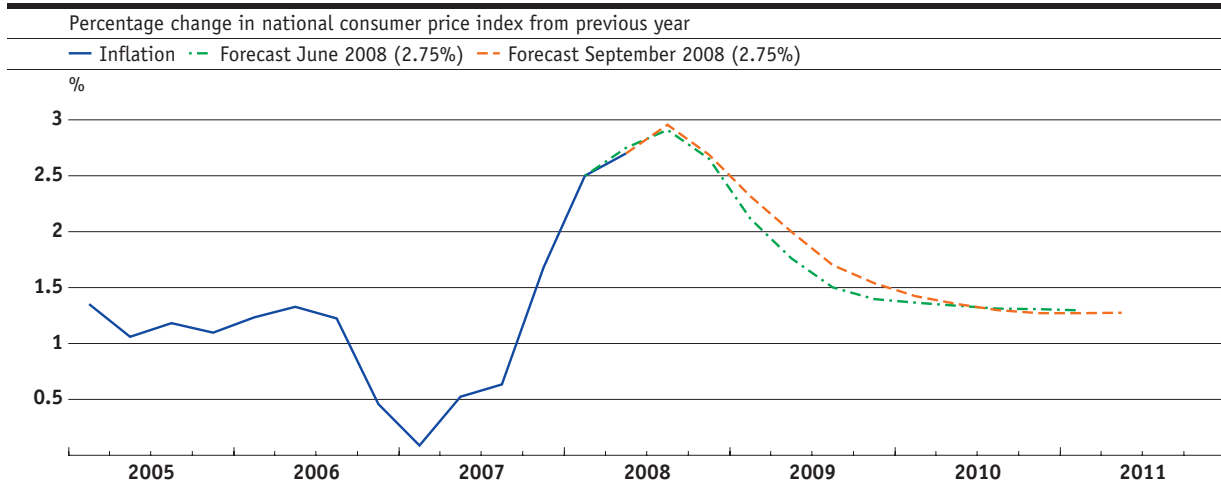
rise in energy prices, a stronger economy than expected, a weakening of the Swiss franc or an increase in inflation expectations could all threaten medium-term price stability. Conversely, the financial crisis could cause a more marked slowdown in the economy, thereby reducing inflationary pressure. The SNB will therefore continue to keep a close watch on these factors, so as to be able to react quickly should the need arise.

Inflation forecast chart

The new inflation forecast (dashed red curve on the chart) covers the period from the third quarter of 2008 to the second quarter of 2011. Like the previous forecast (dash-dotted green curve), it is based on the assumption that the three-month Libor remains unchanged at 2.75%. The new forecast indicates that, in the near future, inflation will be slightly more persistent. It will remain above the 2% level until the second quarter of next year. Essentially, this overshooting is due to the previous increases in oil prices and the continued high level of economic activity. However, the forecast shows that the slowing of the economy, the recent fall in oil prices and the associated statistical effect will contribute to a drop in inflation in the next few months; it should return to a level compatible with medium-term price stability in 2009.

Chart 4.1

Inflation forecast of June 2008 with Libor at 2.75% and of September 2008 with Libor at 2.75%



Source: SNB

Observed inflation September 2008

Table 4.2

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

Inflation forecast of June 2008 with Libor at 2.75% and of September 2008 with Libor at 2.75%

	2008				2009				2010				2011			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Forecast June 2008, Libor at 2.75%		2.75	2.91	2.65	2.12	1.76	1.50	1.40	1.36	1.34	1.31	1.31	1.30			
Forecast September 2008, Libor at 2.75%			2.96	2.69	2.32	2.00	1.70	1.54	1.42	1.35	1.30	1.27	1.27	1.28		

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

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

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

Summary

The 170 or so representatives of various economic sectors and industries interviewed by the SNB delegates for regional economic relations between June and August continued to regard business performance as good to very good. As regards the outlook, however, the assessment was more muted. A number of industries have witnessed a slackening of demand over the past few months. Others are expecting a similar development for the remainder of this year and 2009. Thus, compared to

the previous report, there is growing evidence of an economic slowdown and uncertainty. Yet in many cases this does not reflect a drop in demand but a welcome return to normal conditions that should result in the alleviation of bottlenecks. Consequently, new investments are being planned. In this regard, banks' lending policies are currently not seen as posing a problem. Depending on the circumstances, headcount could remain stable or be increased slightly. Owing to a combination of rising production costs and robust demand, the trend towards higher selling prices is continuing.

1 Production

Manufacturing

Overall, the utilisation rate in manufacturing remained high to very high. Investment was correspondingly robust and there was little talk of reinvesting in future investment plans. According to the respondents, lending conditions for firms have so far remained unchanged, despite the crisis on financial markets. This is attributable to the continuing good earnings situation. However, some respondents believe that access to bank financing could rapidly become more constrained in the event of a deterioration in business performance. Self-financing is thus a strategic objective for many firms.

Even in those cases where a slowdown or stagnation of demand was observed, respondents were reportedly satisfied with the level of turnover. Demand from emerging economies in Asia, Latin America and Central and Eastern Europe, as well as from oil-exporting countries, remained particularly strong. Assessments varied as regards demand from Western Europe, the US and Japan.

The growth rate also varied quite strongly between industries. The momentum in niche and luxury markets (such as medical technology, energy technology and supply, and watchmaking) continued unabated. Conversely, for classic capital goods (electronics and machinery) and for some consumer-related industries (e.g. automotive industry suppliers), new orders flattened out or even contracted. Most respondents were confident about the short-term outlook, as a result of well-filled order books. For 2009, the majority of respondents are expecting that growth will slow – substantially in some cases.

Services

In the retail trade, developments were more mixed than they had been in the spring. Despite the decline observed in the consumer sentiment index, the consumer climate up to August was mainly judged to be positive. This was true for both wholesalers and specialist retailers. In particular, strong increases in turnover were recorded in the food and luxury goods industries. Suppliers in border regions continued to benefit from the improved competitiveness of prices compared with neighbouring countries. However, other respondents reported a slackening of demand. For the near future, most reporters are expecting turnover to flatten.

In the hospitality industry, the positive trend continued, and in a number of cases the excellent results achieved in 2007 were even surpassed. With the exception of the Basel region, the 2008 European football championships had no positive effect on volumes. In the host cities, the number of overnight stays in June was actually below the previous year's figure. However, the guests did consume more in relative terms. In addition, hotels were able to charge higher prices. The positive trend continued into July. The outlook for 2009 differs according to the customer segment. Firms are spending less on corporate events and conferences, while in the area of private tourism the number of reservations received for the winter season (above all from Germany and Italy) has so far been relatively modest. Moreover, the higher cost of air travel due to the price of oil could have a dampening effect on bookings from tourist groups from Asia. Representatives of the luxury hotel segment were comparatively sanguine.

The assessment of the business environment was also mixed in the transport industry. Representatives from the goods trade category reported that demand had fallen back – in some cases from very high levels. By contrast, for tourism-related water, rail and air transport companies, business continued to be satisfactory. The picture was also mixed in the corporate services sector. Rising business volumes were again observed in technical and legal consultancy activities, as well as in the IT sector. However, the slackening of demand in the labour market has caused activity by temporary staff agencies to lose momentum somewhat.

As in previous months, banking sector representatives reported that conditions in asset management business continue to be difficult. The financial market turbulence had led some respondents to experience a significant drop in turnover, and hence commission income. Lending, on the other hand, continued to be a mainstay of business activity. There was a renewed increase in mortgages and corporate loans, although margins continued to trend downwards. Like other industry representatives, the respondents from the banking sector refuted the suggestion that lending conditions had tightened.

The recent business performance of other service providers (catering, insurance, wholesaling and cleaning) is seen as trending upwards or stable.

Construction and real estate

Construction industry representatives described the business environment as satisfactory. Their level of activity continues to be high. Although a few firms experienced a renewed decline in orders, this is regarded as a return to normal. The main impetus was again provided by residential construction and, in particular, increased renovation activity. Demand for commercial construction was driven mainly by the manufacturing and hospitality industries. Wide regional divergences were reported for civil engineering activity. Prices for apartments and single-family homes rose once again. Most respondents considered the price rises to be justified, given the ongoing tension in the housing market. Owing to the high cost of raw materials (steel, glass), construction prices also continued to trend upwards.

2 Labour market

The demand for labour remains robust, despite a reduction in the amount of overtime at a number of firms and the general move towards greater caution in staff recruitment plans. Most firms are expecting headcount to remain stable or increase slightly. Only in a few cases were headcount reductions mentioned. A number of industries continued to experience problems in recruiting skilled staff.

Inflation looks set to play an important role in the forthcoming round of pay negotiations. The pay increases factored in by the respondents range between 1% and 3.5%, with most firms expecting a nominal increase of around 2.5%. Pay increase figures that exceeded this range were mentioned by only very few respondents, and generally involved companies that have recently achieved above-average productivity gains and excellent earnings.

3 Prices, margins and earnings situation

Energy and commodities prices continued to be an important issue. Despite the correction that took place during the summer, prices remain high. Accordingly, firms passed on substantial costs during 2008. With the exception of certain parts of the chemical industry, customers generally accepted the price rises. Despite this, price increases did not uniformly keep pace with rising costs, and this squeezed operating margins further. Many of the firms surveyed are planning further price adjustments for 2009. Since the weakness of the dollar had also resulted in substantial margin shrinkage, export-oriented firms have welcomed the US currency's recent recovery.

Cost pass-through in a competitive model of pricing-to-market

Raphael Auer and Thomas Chaney
Working Paper 2008-6

Why are the changes in relative costs that are brought about by exchange rate fluctuations only passed through partially to consumers? This paper constructs an extension to the Mussa and Rosen (1978) model of quality pricing. First, the authors consider a perfectly competitive setting, as opposed to the original monopoly setting presented by Mussa and Rosen. Second, the model incorporates decreasing returns to scale. In the resulting equilibrium, higher quality goods are matched to consumers with a high preference for such goods. The price schedule relating good quality to market price depends on the valuations of consumers matched to these goods. Prices are higher when the valuations of consumers in the market are higher. Price differentials between goods of different qualities are greater, the higher consumer valuations are. The authors derive three testable predictions. First, exchange rate shocks are imperfectly passed through into prices. Second, prices of low quality goods are more sensitive to exchange rate shocks than prices of high quality goods. Third, in response to a currency appreciation, the composition of exports shifts towards higher quality and more expensive goods. The paper tests these predictions using highly disaggregated US import data (price and quantity). The authors find that the prices of high quality goods, proxied as high unit-price goods, are more sensitive to exchange rate movements. Moreover, there is evidence that, in response to a currency appreciation, the composition of exports shifts towards high unit-price goods.

Reference:

Mussa, Michael and Sherwin Rosen. 1978. Monopoly and Product Quality. *Journal of Economic Theory* 18(2): 301-317.

Competition and relational contracts: The role of unemployment as a disciplinary device

Martin Brown, Armin Falk and Ernst Fehr
Working Paper 2008-7

When unemployment prevails, a relationship with a particular firm is very valuable for an employee. As a consequence, the employee may adhere to an implicit agreement to provide high effort, even though his job performance is hard to verify and cannot be enforced. But can such implicit agreements – or relational contracts – also motivate high performance when the demand for labour is high, and workers can switch jobs easily? The authors examine this question by implementing an experimental market in which there is excess demand for labour and the performance of workers is not enforceable. The study shows that in this labour market environment, implicit agreements emerge in which firms reward well performing employees with wages that exceed the going market rate. This motivates employees to provide high effort, even though they could shirk and switch firms. This outcome suggests that unemployment is not a necessary device for implicit agreements to motivate workers. The authors examine, further, how competitive conditions affect implicit agreements by comparing the outcome of a labour market with an excess supply of labour to that with an excess demand for labour. Relational contracts turn out to be less frequent when there is excess demand for labour than in the case of a market characterised by unemployment. Surprisingly, though, this does not compromise market performance.

The colonial and geographic origins of comparative development

Raphael Auer
Working Paper 2008-8

Why are some economies rich and others poor? The economic profession is divided between two rival schools of thought, emphasising, on the one hand, geography, and on the other, institutions. This research assesses the relative importance of each channel using the interaction of history and geography. While the direct impact of geographic endowments on prosperity is present in all countries, in former colonies, geography also has had an impact on colonisation policies and institutional outcomes. Thus, it is possible to disentangle the partial effects of endowments and institutions on income by utilising the interaction of geography and colonial experience. The author first documents the fact that climate and disease affected institutional development in the group of former colonies, while this was not the case in the rest of the world. Second, he develops an empirical strategy that identifies the relationship between institutions and income but also accounts for the direct impact of endowments. He finds that institutions are the main determinant of development but that endowments also have a sizeable direct impact. Third, the paper highlights the importance of disease environment as regards both colonisation policies and income directly.

Does FOMC news increase global FX trading?

Andreas M. Fischer and Angelo Ranaldo
Working Paper 2008-9

Does global currency volume increase on days when the Federal Open Market Committee (FOMC) meets? To test the hypothesis of excess currency volume on FOMC days, the authors use a novel data set from the Continuous Linked Settlement (CLS) Bank. The CLS measure captures roughly half of the global trading volume in foreign exchange (FX) markets. They find strong evidence of an increase in trading volume of the order of 5% for all currency areas on FOMC days during the period from 2003 to 2007. This result holds, irrespective of the size of price changes in currency markets and FOMC policy shocks. The new evidence of excess FX trading on FOMC days is inconsistent with standard models of the asset market approach with homogenous agents.

Extreme coexceedances in new EU member states' stock markets

Charlotte Christiansen and Angelo Ranaldo
Working Paper 2008-10

The authors analyse financial integration in the stock markets of new European Union (EU) member states using the negative (positive) coexceedance variable that counts the number of large negative (large positive) returns on a given day for all of the countries. They use a multinomial logit model to investigate how persistence, asset classes and volatility are related to the coexceedance variables. The paper finds that the effects differ (a) between negative and positive coexceedance variables, (b) between old and new EU member states and (c) before and after the EU enlargement in 2004, suggesting a closer connection between new EU stock markets and those in western Europe. The empirical evidence shows that the stock markets of countries that have just joined the EU are more exposed to adverse comovements, volatility as well as persistence. This result suggests that the drawback of financial market integration is stronger cross-country shock propagation.

Chronicle of monetary events

Target range for the three-month Libor left unchanged

On 18 September 2008, following its quarterly monetary policy assessment, the Swiss National Bank decided to leave the target range for the three-month Libor unchanged at 2.25–3.25%. It intends to hold the three-month Libor in the middle of the target range for the time being.

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