Inflation Report

2004:4

9 December 2004

Contents

Foreword

The Riksbank's monetary policy is targeted at keeping inflation at 2 per cent, with a tolerance for deviations from this level of +/- 1 percentage point. The Riksbank gives its collective view of the inflation outlook in the Inflation Report. The Executive Board's monetary policy decisions and discussions are presented in separate press releases. Executive Board members may differ in their opinions on inflation prospects. The Board members' assessments and individual stances on monetary policy decisions are presented in the minutes of the Executive Board's monetary policy meetings. Any divergent opinions regarding the inflation outlook will thus be recorded in the separate minutes of the Board meeting on 8 December, to be published on 22 December 2004.

This Report presents forecasts for inflation developments up to the end of 2006 Q4. The Report gives the main features of the presentations and discussions at the Executive Board meetings on 23 November and 2 December 2004.

The purpose of the Inflation Report is not merely to produce background material for monetary policy decisions, but also to spread knowledge about the Riksbank's assessments. The Bank aims to make it easier for external parties to follow, understand and assess monetary policy.

In order to elucidate the consequences for monetary policy, the analyses in the Report are based on the assumption that the repo rate will remain unchanged during the forecast period. The forecasts are also based on several other important assumptions, which are described in more detail in the Report.

The Report begins with a summary. This is followed by a discussion of the most probable development of inflation's principal determinants. Finally, the Riksbank gives its overall assessment of inflation prospects in the main scenario and the key risks surrounding this assessment. The Report also contains a number of boxes, which aim to provide more in-depth knowledge about matters of importance for the inflation assessment.

Stockholm, December 2004

Lars Heikensten
GOVERNOR OF SVERIGES RIKSBANK

Summary

The assessment in the October Inflation Report was that international economic activity would continue to strengthen and resource utilisation in the world economy would rise gradually over the coming years. This assessment still stands, although new statistics received since October indicate a slightly weaker development than expected, particularly in the euro area. Oil prices have been slightly higher than expected and the US dollar has weakened relatively substantially against both the euro and the krona. Slightly lower international growth, higher oil prices and a stronger krona have in total led to a slight downward revision being made to the forecast for Swedish GDP next year. Resource utilisation is expected to increase gradually during the forecast period. Inflation is presently low and the relatively low costs expected in the near future should lead to a moderate inflation rate over the coming years. One year ahead, UND1X inflation is expected to be around 1.5 per cent and two years ahead it is expected to be 2 per cent.

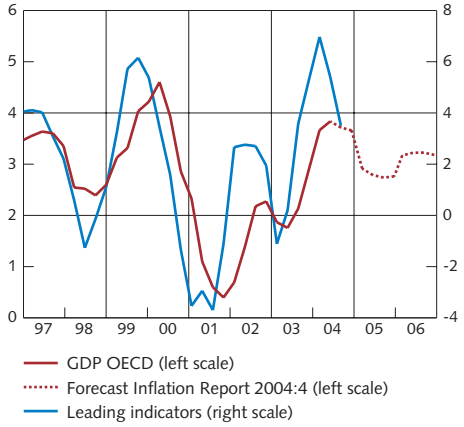
Growth in world economy revised down somewhat.

The Riksbank's assessment in the October Inflation Report was that the growth rate in the world economy would slacken somewhat during the autumn, following the rapid upturn during the first half of 2004, an opinion supported by, for instance, OECD's leading indicators (see Figure 1). Since mid-October there have been some signs that international economic activity has not shown as strong development as expected. Recent statistics indicate that growth in the euro area was somewhat lower than expected during Q3. This slowdown is probably linked to high oil prices and the strong euro. Economic signals from the United States have been mixed. US growth in Q3 was also slightly lower than expected. Indicators of growth prospects for Q4 paint a relatively positive picture of the level of activity, including an unexpectedly rapid increase in employment in October.

In recent years, the US dollar has gradually weakened against the euro and the krona. This process has continued since the October Inflation Report (see Figure 2). It is likely that the large deficits in the US current account and federal budget have been behind this development in recent years.

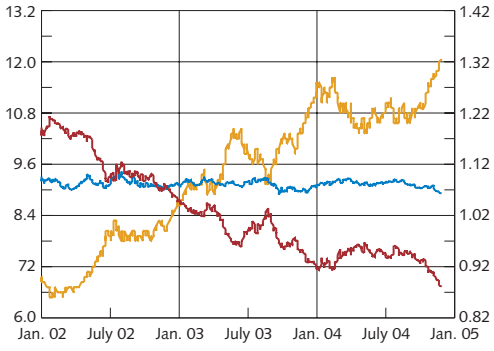
Pricing in the oil markets has been volatile, with severe fluctuations in recent months. Oil prices have risen further since the previous Inflation Report, as have forward prices on contracts to be delivered two years ahead (see Figure 3). The forecast for oil prices has therefore been adjusted upwards, but the Riksbank's assessment is still that oil prices will fall during the forecast period. As in the previous report, the high oil prices are considered to be due to both supply and demand factors and are not expected to break the recovery in the world economy. However, the fact that

Figure 1. GDP for OECD and leading indicators. Annual percentage change



Note. The broken line represents the Riksbank's forecast.
Sources: OECD and the Riksbank.

Figure 2. Exchange rate developments for SEK/USD, SEK/EUR and USD/EUR.



Source: The Riksbank.

Figure 3. Forward oil prices.
USD

Source: International Petroleum Exchange.

oil prices are expected to be slightly higher will contribute to slightly lower international growth and higher inflation than was assumed in October.

High oil prices are expected to have a relatively larger effect in terms of subduing growth in the US economy than in the euro area, because of the greater oil dependence in the United States. However, US exports will be strengthened by the weaker dollar rate. The stronger euro will contribute to weakening the euro countries' competitiveness in relation to the United States and those countries that have chosen to stabilise their currency against the dollar. However, the appreciation of the euro against the dollar partly counteracts the price increases on oil in the euro countries.

All in all, the recent slackening in the growth rate of the world economy and higher oil prices than assumed in the October Inflation Report lead the Riksbank to revise down its forecast for real growth somewhat. The assessment of Swedish export market growth has therefore been revised down somewhat.

The Riksbank also expects the Swedish krona to appreciate slightly more than was assumed previously. This is due to recent developments together with continued good growth prospects in the Swedish economy and a large surplus on the current account.

International price increases have been relatively low in recent years and have also been an important factor behind the low inflation rate in Sweden. Recently, however, international producer prices have risen relatively strongly in the wake of higher commodity prices. The rate of increase in consumer prices with an adjustment for oil prices rose at the beginning of the year, but remains relatively low. Next year, international producer and consumer prices are expected to rise slightly more rapidly than was previously forecast, mainly as a result of higher oil prices. Nevertheless, oil prices are expected to fall during the forecast period, and as international competition is assessed on the whole to remain tough, it is assumed that international price pressure will also remain moderate at the end of the forecast period.

■■ Stable growth in the Swedish economy.

During the past four quarters the Swedish economy has grown at a more rapid rate than the Riksbank deems sustainable in the long term. This has occurred without inflation accelerating, which indicates that unutilised production capacity has been relatively large in recent years. Growth has been supported by strong export activity at the same time as household consumption has increased at a stable rate.

Industrial activity is still assessed as good, although growth in export orders and manufacturing output appear to have slackened somewhat over the summer and autumn. Foreign trade statistics indicate that exports of goods increased slightly less than expected during Q3. The forecast for a relatively strong growth in consumption over the year is largely supported by statistics on turnover in the retail

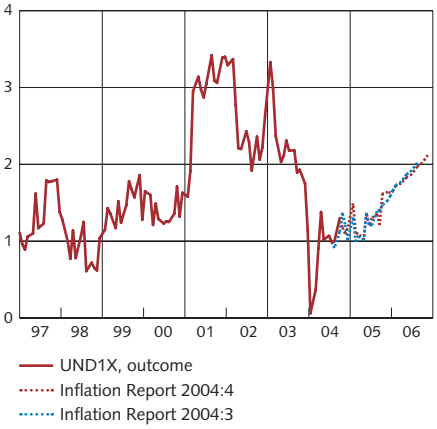
trade, although the most recent monthly statistics showed a slightly lower increase in turnover than earlier in the year.

The increase in exports is expected to slacken as international growth becomes lower, while the krona is now expected to be stronger than was previously forecast. As before, investment activity is expected to increase over the coming year. Capacity utilisation in the manufacturing and business sectors has increased, which indicates that there is also a need to increase production capacity. Revising down the forecast for international demand also implies that investment demand will slacken. All in all, growth in the Swedish economy is expected to remain high, although slightly lower next year than was forecast in the October Inflation Report. GDP is assumed to rise 3.6 per cent this year, followed by 3.0 per cent in 2005 and 3.2 per cent in 2006.

The high growth rate over the past year has not yet resulted in any significant improvement in employment in terms of the number of people employed. However, employment measured in terms of the number of hours worked increased during the first half of the year. A small increase in the number of people employed was noted during Q3, but indicators in the form of, for instance, new job vacancies do not imply a rapid upturn in the near future. Open unemployment has fallen recently, but this is primarily a result of a large-scale investment in labour market policy measures. The increase in the number of hours worked and the high growth figures indicate that employment will increase gradually over the forecast period. The good productivity growth reflects the fact that firms have been able to increase production with the aid of the employees they already have.

The downward revision in the forecast made for growth next year is assumed to imply a marginally weaker development in the labour market than assumed earlier. However, it is not expected that the assessment of productivity growth will be significantly affected by adjustments to the forecasts for growth and employment. At present there is no reason to reconsider the assessment of the amount of unutilised resources in the economy. Capacity utilisation has continued to rise in the business sector, but this is generally from low levels. Labour shortages are still small in most sectors. During the forecast period, the assessment is that unutilised resources will be employed and towards the end of the period resource utilisation will rise to levels that can no longer restrain wage and price increases. However, it is reasonable to assume that with the economic activity now expected, resource utilisation will be marginally lower towards the end of the forecast period than was anticipated in October.

Figure 4. UND1X: outcome and forecasts in the main scenario.
Annual percentage change



Note. The broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Inflation assessment

Inflation has remained low during the autumn (see Figure 4). Reasons for the moderate inflation rate include low price increases on domestically-produced consumer goods and falling prices on imported products excluding oil products. The rate of domestic price increases has been held back by low cost increases, partly due to high productivity growth and a low level of resource utilisation. Prices on imported consumer goods have fallen since 2003, which is largely due to low international price pressure and the stronger exchange rate in recent years. Inflation trends in recent months have largely been in line with the assessment in the previous Inflation Report.

Low cost increases in the economy mean that the weak domestic inflationary pressure is expected to endure for some time to come. As economic activity strengthens, productivity growth is expected to be subdued. Together with a higher resource utilisation and rising wages, cost pressure is expected to increase, which would lead to a gradual rise in domestic inflation. Slightly weaker real growth in 2005 than assumed previously is now expected to lead to lower inflationary pressure.

Imported inflation excluding oil is also expected to rise during the forecast period. The reasons are rising international resource utilisation and indirect effects of higher oil prices on production costs. The assessment of imported inflation is also affected by the abolition of the EU's import quotas on clothing in January 2005, which is expected to lead to growing price pressure on clothing when imports from countries with lower production costs increase. The total assessment is, however, that the rate of increase in prices on imported consumer goods, excluding oil, will rise gradually from an initially low level over the coming two years. The forecast for imported inflation remains largely unchanged since October. This is because the effects of higher oil prices are expected to be largely counteracted by the effects of a stronger exchange rate during the forecast period.

All in all, the inflation forecast in the main scenario remains approximately the same as in the October report. In the assessment of domestic inflation trends, slightly lower inflationary pressure resulting from slightly weaker growth in 2005 is balanced by the forecast horizon being moved forward one quarter and the assessment covering a further stage in the economic cycle. UND1X inflation will rise gradually during the period and is now expected to be 1.6 per cent one year ahead and 2.1 per cent two years ahead.

■■ The risks from international developments could lead to lower inflation.

The assessment in the October Inflation Report was that the risks for inflation from international developments were balanced around the main scenario. The risk spectrum has changed somewhat this time. The key risk factors are still oil prices, various financial imbalances

and structural changes both internationally and in Sweden, although the balance between them has altered somewhat. In October the risk of continuing high oil prices was emphasised, entailing higher international price pressure and larger real economy effects than was then assumed in the main scenario. Given the severe fluctuations in oil prices recently, the uncertainty regarding oil prices and their effects on growth and inflation still remains.

Recently, economic growth abroad has slackened more than expected. For example, growth in the euro area and in the United States in Q3 this year appears to have been lower than anticipated. With regard to the euro area, a stronger euro in relation to the dollar may prove a risk factor for the ongoing economic recovery. Growth in the euro area, and notably in Germany, has recently shown an increase in net exports. A stronger exchange rate risks delaying the revival there should domestic demand and employment fail to accelerate again.

It is difficult to single out any one factor behind the recent dollar depreciation, even though the large deficits in the US current account and federal budget have come under the spotlight even more in recent months. The possibility of a more rapid and severe weakening of the dollar than is generally expected cannot be ruled out. If this occurs, it could dampen the global economic upswing.

There are also other factors in the world economy that could contribute to weaker economic activity and thereby to lower inflationary pressures than forecast in the main scenario. These include uncertainty over how house prices in a number of economies will develop in the period ahead. It cannot be ruled out that a gradual dampening of economic growth in certain countries would lead to a sharp adjustment of house prices and therefore to weaker private consumption than assumed in the main scenario.

As in the previous Inflation Report, there is uncertainty over what impact the abolition of the EU's import quotas on textiles and clothing will have on consumer prices. It is conceivable that the impact will be greater and that imported inflation will thus be lower than assumed in the main-scenario forecast.

On balance, the risks of higher inflation as a result of higher oil prices do not completely counterbalance the risks of lower inflation resulting from more subdued international economic activity, a rapid fall in the dollar rate and increased international competition. International developments are thus associated primarily with a risk for lower inflation this time.

■■ Risks from domestic cost pressures are balanced.

The domestic risks of higher or lower inflation than in the main scenario are judged to be balanced. As in the previous Inflation Report the most significant risk is considered to be productivity growth. Productivity growth varies considerably from year to year, and there

is great uncertainty over how much of it is due to cyclical factors and how much to more durable factors. As in the previous Inflation Report, the robust productivity growth is deemed to be partly a cyclical phenomenon. Therefore, as economic activity strengthens, the rate of increase in productivity growth is expected to slacken somewhat. Nevertheless, the assessment of productivity growth is still that the risk of it being overestimated is roughly the same as the risk of it being underestimated.

All in all, the assessment now is that the risk of lower inflation than in the Report's main scenario is not fully balanced by the risk of higher inflation. This means that the risk-adjusted inflation forecast is somewhat lower than in the main scenario (see Table 2).

Table 1. Inflation forecast in the main scenario.
Annual percentage change

	Annual averages			12-month rates		
	2004	**2005**	**2006**	**Dec. 04**	**Dec. 05**	**Dec. 06**
CPI	0.5 (0.5)	1.2 (1.3)	2.2	0.7 (0.9)	1.7 (1.8)	2.5
UND1X	1.0 (1.0)	1.3 (1.2)	1.9	1.1 (1.2)	1.6 (1.5)	2.1
UNDINHX	1.7 (1.7)	1.7 (1.6)	2.5	1.3 (1.4)	2.2 (2.2)	2.8
UNDIMPX	-0.5 (-0.5)	0.5 (0.5)	0.5	0.6 (1.0)	0.5 (0.2)	0.7

Note. The figures in parentheses are the forecasts in the October Inflation Report. UND1X is CPI inflation excluding household mortgage interest expenditure and the effects of changes in indirect taxes and subsidies. UNDINHX refers only to prices of mainly domestically produced goods and services in UND1X. UNDIMPX refers to prices of mainly imported goods and services in UND1X.

Sources: Statistics Sweden and the Riksbank.

Table 2. Risk-adjusted inflation forecasts.
Annual percentage change

	Annual averages			12-month rates	
	2004	**2005**	**2006**	**Dec. 05**	**Dec. 06**
CPI	0.5 (0.5)	1.1 (1.3)	2.1	1.6 (1.8)	2.4
UND1X	1.0 (1.0)	1.2 (1.2)	1.8	1.5 (1.5)	2.0

Note. The figures in parentheses are the forecasts in the October Inflation Report. The mean values of the probability distributions for the inflation forecasts in Figures 67-68.

Source: The Riksbank.

Determinants of inflation

The financial markets

Since the October Inflation Report, the dollar has weakened relatively substantially against the euro and the Swedish krona. The growing deficits in the US current account and federal budget have come under greater focus from the financial markets and have had a strong influence on market trends. The krona has also strengthened against the euro recently and the Riksbank's assessment is that the exchange rate will strengthen slightly more than was assumed in October. There are expectations that the US Federal Reserve Bank will continue its interest rate hikes. However, in the euro area and Sweden, pricing in the money markets indicates that interest rate hikes are not expected until some time after the New Year. Long-term interest rates remain relatively low compared with the summer, but are expected to rise gradually as economic activity strengthens.

■■ Continuing interest rate hikes expected in United States.

The Federal Reserve raised its rate again on 10 November. This was the fourth hike of 0.25 percentage points since June, which means that the US key rate has now reached the same level as the Swedish repo rate and the ECB's key rate, that is, 2 per cent. The strong employment statistics for October, which were published prior to the announcement from the Federal Reserve, contributed to a tangible increase in expectations of continued key rate hikes in the US money market (see Figure 5).

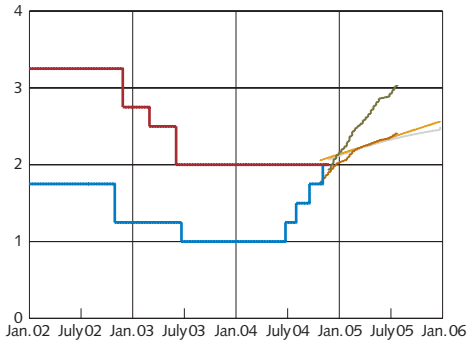
Implied forward rates in Sweden and the euro area indicate that both the Riksbank and the ECB are expected to raise their key rates some time after the New Year (see Figures 5 and 6). Over the past six months, Swedish forward rates have been adjusted downwards, which can be interpreted to mean that the expected timing for interest rate hikes has gradually been moved forward (see Figure 6). Recently, pricing in the money markets in the United States has thus moved in a different direction to pricing in the euro area and Sweden. Forward rates have risen considerably in the United States, while they have fallen slightly in the euro area and Sweden (see Figures 5 and 6).

■■ Long-term rates remain low.

Long-term interest rates have fallen in Sweden, Germany and the United States since the beginning of the summer. Recently, long-term rates have begun to rise in the United States, but have continued to fall in Sweden and Germany. However, the 10-year US government bond rate is still much lower than it was at its highest point in June (see Figure 7).

The Swedish 10-year treasury bond rate is also much lower than it was at its highest point in the summer. The Riksbank's assessment is that long-term interest rates will rise in the near future as economic activity strengthens, but that the recovery towards higher levels will

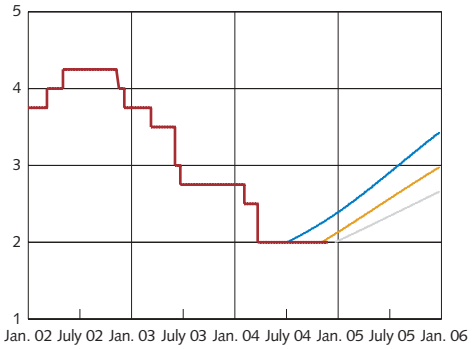
Figure 5. Monetary policy expectations in the euro area and the USA according to implied forward rates and Fed Funds futures.
Per cent



Note. Fed Funds futures are priced in terms of the average key rate during the respective month.

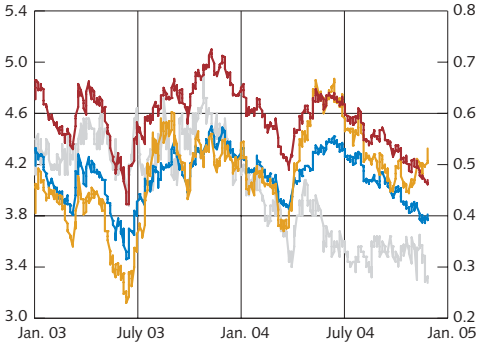
Source: The Riksbank.

Figure 6. Monetary policy expectations in Sweden according to implied forward rates.
Per cent



Source: The Riksbank.

Figure 7. Yields on 10-year government bonds in Sweden, Germany and the United States.
Per cent



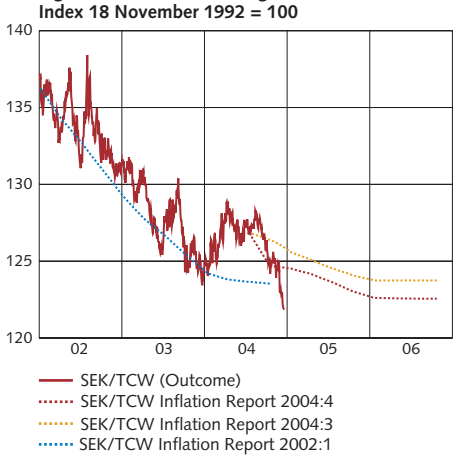
Source: The Riksbank.

Figure 8. US trade-weighted exchange rate and USD/EUR.
Index 1 January 2002=100

Note. Daily data on nominal exchange rates. The trade-weighted index covers around 25 currencies weighted according to US foreign trade. The euro's weighting in this is around 16 per cent. The original trade-weighted index has been inverted so that a higher level corresponds to a weakening.

Source: The Riksbank.

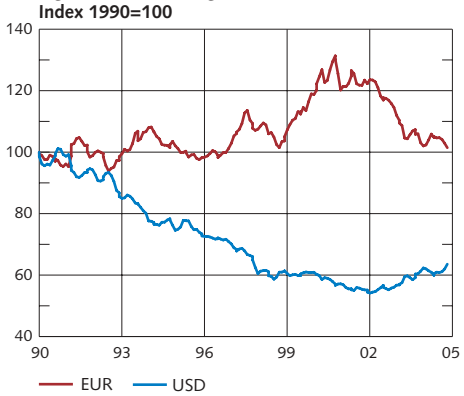
Figure 9. SEK/TCW exchange rate.
Index 18 November 1992 = 100



Note. The outcome is daily rates and the forecasts refer to quarterly averages. The broken line represents the Riksbank's forecast.

Source: The Riksbank.

Figure 10. Trade-weighted USD and EUR
Index 1990=100



Note. Monthly data on nominal exchange rates. The trade-weighted dollar index covers around 25 currencies weighted according to US foreign trade. The euro's weight in this index is approximately 16 per cent. The trade-weighted euro rate covers 12 currencies weighted according to the euro area's foreign trade. The dollar's weight is around 25 per cent on this index. The original trade-weighted index has been inverted so a higher level corresponds to a weakening.

Sources: The ECB, the Federal Reserve and the Riksbank.

be slightly slower than was estimated in October. The forecast for the Swedish 10-year rate is on average 4.7 per cent for 2005 and 5.3 per cent for 2006. This is a downward revision of around 0.4 percentage points for 2005 and 0.3 percentage points for 2006, compared with October's assessment.

■■ Fall in the dollar rate.

Since the October Inflation Report, the dollar has weakened against the euro and even more against the Swedish krona. It is probably the increased focus on the large deficits in the US current account and federal budget that have been behind this development. At the end of November, the dollar was at its weakest against the euro since the introduction of the euro in 1999. At the same time, the krona has not been so strong against the dollar since 1996. There has also been some strengthening of the krona against the euro recently . The strengthening against the dollar and the euro has meant that the krona has also strengthened in relation to the TCW index since the previous Inflation Report. The strengthening of the krona in recent years is due to good growth prospects and an improved external position.

The trade-weighted dollar rate has also weakened recently. Since the beginning of 2002, the dollar has weakened by almost 50 per cent against the euro and by almost 20 per cent in trade-weighted terms (see Figure 8).

The krona has strengthened slightly more in terms of the TCW index than the Riksbank had anticipated in the previous report and is expected to remain slightly stronger throughout the forecast period than was anticipated then. The forecast for the SEK/TCW is on average around one index unit stronger for 2005 and 2006, compared with the October forecast, which entails an estimated rate of just under 124 on average for 2005 and around 122.5 for 2006 (see Figure 9).

■■ Recovery in the stock market.

US share prices, in common with German and Swedish share prices, have risen recently. On balance, share prices in Sweden, Germany and the United States are higher now than they were at the beginning of the year. The OMX index has risen most over the year (see Figure 11). The OMX index is in terms of the P/E ratio at a level close to the average for the past 20 years.

According to the pricing in the Swedish options market, implied volatility is relatively low. This can be interpreted as the participants in the options market expecting a stable development in the OMX index over the coming months (see Figure 12).

■■ Continued growth in house prices and household borrowing.

Statistics Sweden's figures for house prices showed an increase of around one per cent during the period August to October, compared

with the period May to July, indicating a slightly lower rate of increase than during the previous three-month period. House prices are still increasing rapidly on an annual basis; prices were around 9 per cent higher in August-October than in the corresponding months last year.

The rate of increase in household borrowing remains high. In October, the increase was 11.3 per cent on an annual basis. The high growth rate in household borrowing is linked to low interest rates, the turnover on the housing market and developments in house prices, as a large part of the loans to households have been used to purchase accommodation (see Figure 13). Borrowing by companies has declined over the past year, but at a slower rate; showing a decrease on an annual basis in October of around 1.9 per cent (see Figure 14).

A change in the growth rate of the money supply could be an indication that inflationary pressure in the economy will change 2-3 years ahead. The growth rate of M3 has fallen since the beginning of 2002. The increase on an annual basis was 3.1 per cent in October (see Figure 15).

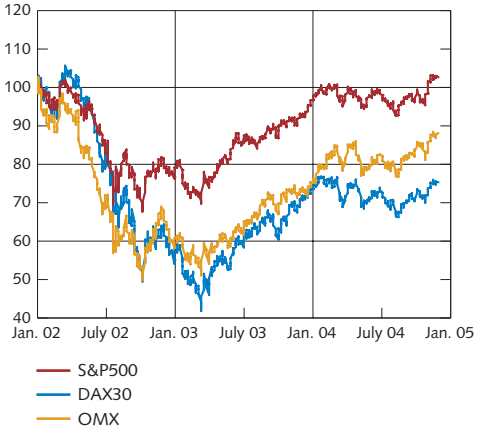
■■ Summary of financial conditions

The krona has appreciated in terms of the real TCW index since the previous Inflation Report (see Figure 16). This development is expected to continue over the coming years. The surplus on net exports will probably decline in the long term, partly as a result of this development. A stronger nominal exchange rate is also expected to contribute to reducing the impact of international price increases on Swedish inflation.

Real interest rates in Sweden are now relatively low (see Figure 16). This should continue to have a positive effect on investment over the coming year. However, the Riksbank's assessment is that long-term interest rates will rise as economic activity strengthens, which will reduce the stimulation effect on investment.

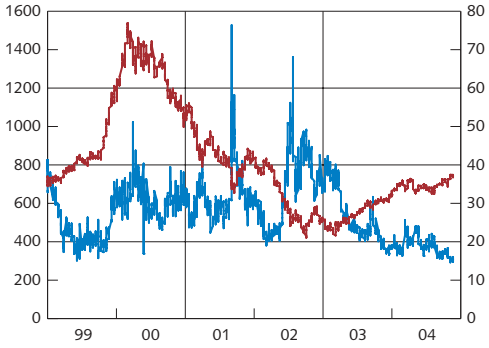
Rising house prices and share prices are expected to have a positive effect on private consumption over the coming year. However, the growth rate for house prices is expected to decline during the forecast period, which means that the effect on consumption will diminish. As in the previous Inflation Report, financial conditions are assessed to support growth in aggregate demand in the short term.

Figure 11. Share price developments in Sweden, the United States and Germany. Index 1 January 2002=100



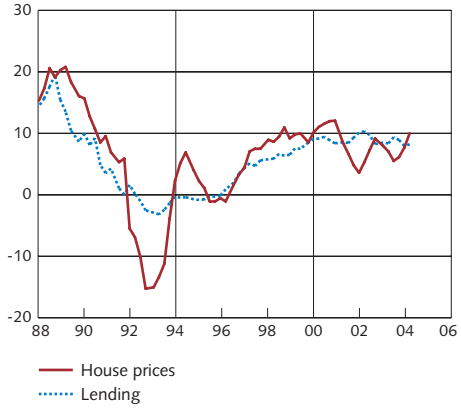
Source: The Riksbank.

Figure 12. Implied volatility and share price developments (OMX) in Sweden 1999-2004. Index and per cent



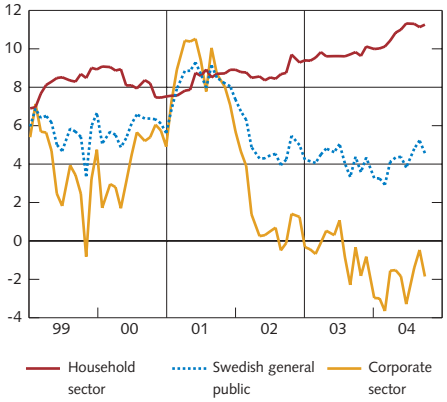
Sources: Bloomberg and the Riksbank.

Figure 13. House prices and total lending to Swedish households. Annual percentage change



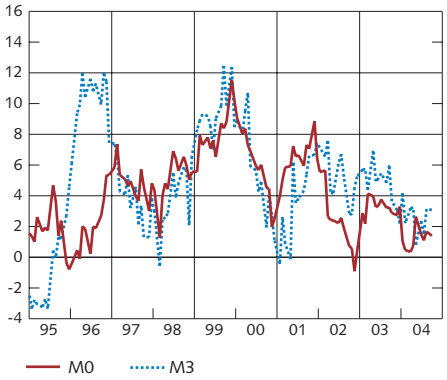
Source: Lantmäteriet, Statistics Sweden and the Riksbank.

Figure 14. All credit institutions' lending to the general public in Sweden, sector breakdown. Annual percentage change



Source: Statistics Sweden.

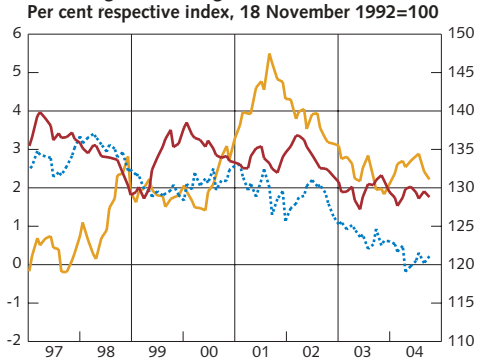
Figure 15. Money supply measured as M0 and M3. Annual percentage change



Note. The narrow money aggregate M0 consists of the general public's holdings of banknotes and coins. The broad money aggregate M3 also contains the Swedish general public's deposits in banks and holdings of bank certificates.

Source: Statistics Sweden.

Figure 16. Real interest rate with 5-year and 3-month maturity respectively and real TCW-weighted exchange rate. Per cent respective index, 18 November 1992=100



Note. When calculating real interest rates, inflation expectations have been taken from the National Institute of Economic Research's HIP surveys for the three-month rate, and from Prospera for the five-year rate. The interest rates refer to treasury bills with 3 months to maturity and treasury bonds with 5 years to maturity.

Sources: The National Institute of Economic Research, Prospera and the Riksbank.

Revised forecasts since the October Inflation Report.

- The krona is expected to be stronger in relation to the TCW index, compared with the October report. The forecast for the SEK/TCW rate is revised down to an average of 126.2 for 2004, almost 124 for 2005 and approximately 122.5 for 2006. This is a reduction of approximately 0.5 index units for 2004 and one index unit for 2005 and 2006.

- The forecast for the Swedish 10-year rate is revised down to an average of 4.7 per cent for 2005 and 5.3 per cent for 2006. This involves a reduction of around 0.4 percentage points for 2005 and 0.3 percentage points for 2006, compared with the October assessment.

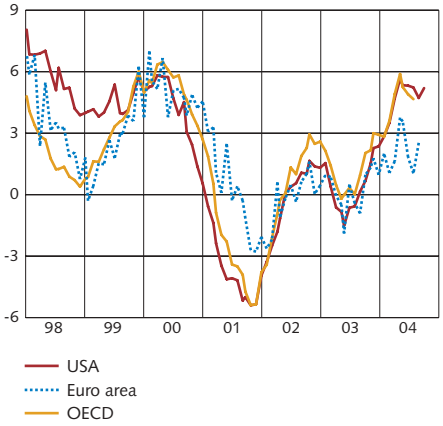
International economic activity and inflation

In the most recent Inflation Report the international economic upswing was predicted to continue this year and over the coming two years. Resource utilisation was forecast to continue to rise in the period ahead. At the same time, following historically high global growth in 2004, the rate of GDP growth in most countries was expected to fall back towards the potential rate in the coming years. That is essentially still the Bank's assessment. The forecast for growth this year in mainly the euro area has been revised down somewhat due to a weaker than expected outcome in the third quarter. Next year, too, growth is estimated to be lower as a result of a stronger euro and a higher oil price. International inflation has risen somewhat over the year, partly due to the high price of oil. However, inflation is judged to be still relatively moderate at the end of the forecast period.

Since mid-October there have been a number of indications that economic activity has not developed quite as strongly as anticipated. This has been most notable in the euro area, where economic growth in Q3 slackened more than expected (see Figures 17 and 18). The slowdown has most likely been due in part to the high oil price and the strong euro. In the United States, economic signals have been mixed. The forecasts for growth in particularly the euro area but also in the United States have been revised down for this year. With the oil price expected to be somewhat higher and the euro stronger in the period ahead, compared with the October Report, the forecast for GDP growth has been revised down somewhat for next year as well. Nevertheless, economic activity is still assumed to continue to strengthen going forward, albeit at a slightly slower pace. Real interest rates are still very low, despite monetary tightening in a number of countries.

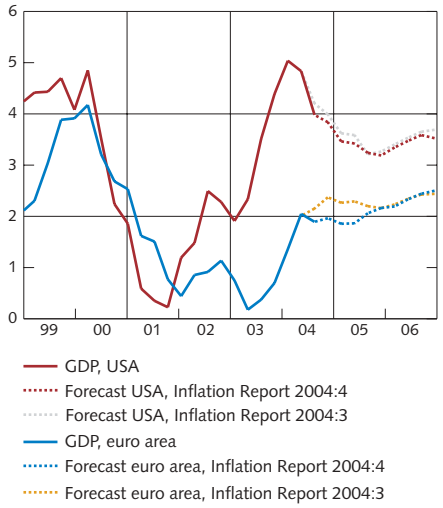
Even though oil prices have soared during the year, the effect on inflation in many countries to date has been relatively limited (see Figures 19 and 20). Having risen in Q2, inflation fell back somewhat during the third quarter (see Figure 20). At the beginning of Q4 it increased again in both the euro area and the United States. Excluding oil prices there was a slight pickup in inflation at the beginning of the year but the rate is still nevertheless relatively low (see Figure 19). The forecast for the oil price in the coming years has been revised up. As a result the rate of increase in both producer and consumer prices abroad next year is expected to be somewhat higher than forecast in October (see Figure 21). The second-round effects of the high energy prices, for example in the shape of higher wage demands, are still expected to be restrained. There are still idle resources in several of the largest economies while the competition in many industries is tough. The prospect that firms will pass on the burden of a higher oil price to consumers is therefore deemed to be limited. As a result

Figure 17. Industrial production in the euro area, the United States and the OECD area. Annual percentage change, seasonally adjusted



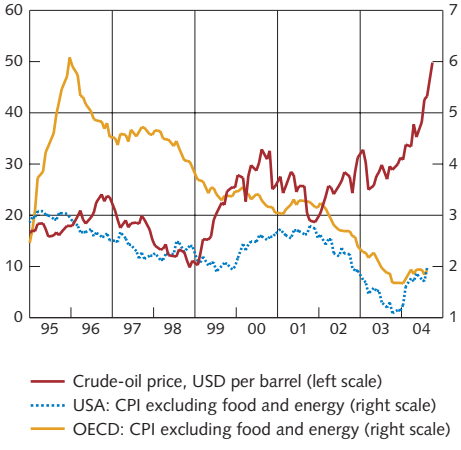
Sources: Eurostat, Federal Reserve and OECD.

Figure 18. GDP in the United States and euro area: outcomes and forecasts. Annual percentage change, seasonally adjusted



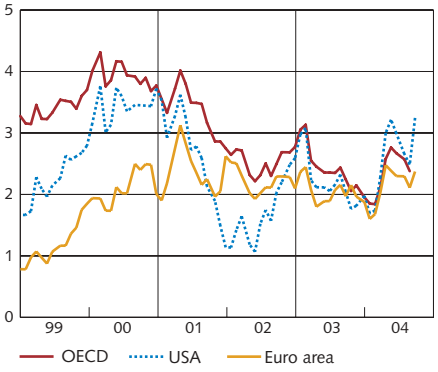
Sources: Eurostat, US Department of Commerce and the Riksbank.

Figure 19. The oil price and inflation in the United States and OECD area. USD and annual percentage change



Sources: International Petroleum Exchange and OECD.

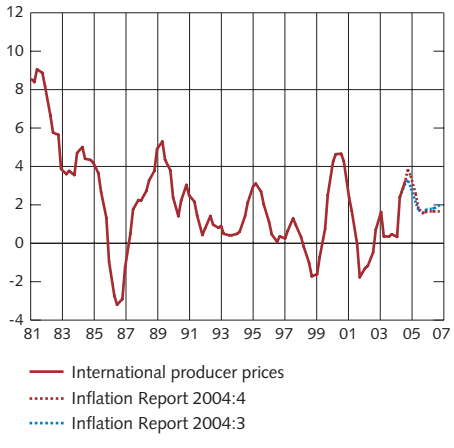
**Figure 20. Inflation in the euro area, the United States and the OECD area.
Annual percentage change**



Note. The inflation measures are the HICP for the euro area and the CPI for the United States and OECD area.

Sources: Bureau of Labor Statistics, Eurostat and OECD.

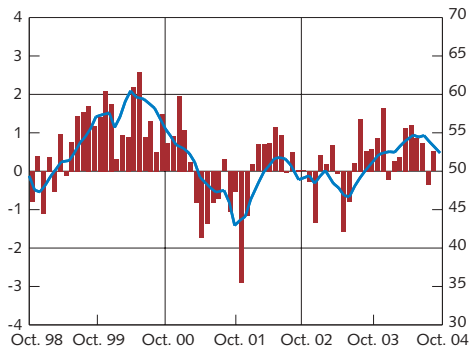
**Figure 21. International producer prices of manufactured products: outcome and forecasts.
Annual percentage change**



Note. The broken lines represent the Riksbank's forecasts. See the note to Table 3 for a specification of international producer prices.

Sources: OECD and the Riksbank.

**Figure 22. Industrial production and PMI in manufacturing: euro area.
Index and quarterly change, seasonally adjusted**



Note. A PMI figure above 50 indicates that the manufacturing industry is expanding; a reading below 50 indicates contraction.

Sources: Eurostat and NTC Research Ltd.

inflation is forecast to be still relatively moderate at the end of the forecast period.

■■ Growth in euro area has slackened.

The euro area lags the United States in the business cycle (see Figure 18). Growth in the euro area rose during the first half of this year. Revised national accounts data show that GDP in Q1 this year increased by 1.4 per cent year-on-year. Q2 growth was 2.0 per cent. The upswing in growth in the first half of 2004 has been driven in large measure by exports. In Germany, which comprises one-third of the euro area economy, the recovery in demand at the beginning of the year was solely export-led. In France, however, it was private consumption and investment that grew strongly.

Preliminary data suggest that GDP growth in the euro area in Q3 stood at 1.9 per cent year-on-year. That was somewhat lower than expected. Growth in France and Germany was unexpectedly weak, while growth in the Italian economy surpassed expectations. As regards Germany, investment and inventories seem to have provided a considerable contribution to demand growth.

Available indicators for Q4 provide a mixed picture. On the whole, industrial production grew weakly in the third quarter but gained new strength in September (see Figure 22). That points to a rise in the level of activity at the beginning of Q4. Other indicators of the present and future business climate were stable during the third quarter as well as at the beginning of Q4. Consumer confidence remains below its long-term average (see Figure 23). The purchasing managers index (PMI) in manufacturing has weakened (see Figure 24). At the same time, the recent euro appreciation has hampered the region's competitiveness.

Investment demand appears to have begun to pick up in Germany, suggesting that the expected gradual expansion in the euro area will continue over the forecast period. The sluggish domestic demand during the year's first six months has been a source of concern in the Bank's assessment. There has been uncertainty regarding whether firms would risk recruiting staff or investing in new projects in a situation where foreign demand is expected to grow at a slower pace. At the same time, firms have implemented significant cutbacks and consolidated their finances over the past three years. Now that the revival has continued since the second half of 2003, there should be a pent-up need to invest. Monetary policy is also clearly expansionary. Short-term real interest rates are even negative. In Europe, long-term interest rates have fallen and the yield curve has become flatter. This can be taken to mean that the market is currently expecting key interest rates to rise more slowly compared with a few months ago. At the same time, lower interest rates provide further stimulus to investment. The assessment, therefore, is that investment will pick up gradually over the coming two years. Households should also benefit from the low level of interest rates. Over the coming two years the Riksbank expects private consumption in the euro area to

rise gradually as labour market conditions improve and households' outlook on the future brightens.

All in all, growth in the euro area is forecast to increase during the forecast period, as in the previous Inflation Report. The pickup is expected to be somewhat weaker this year and next year, however. This is mainly because the outcomes to date this year have been weaker than expected, but also because of the strong euro and the higher oil price. GDP growth in the euro area is forecast to be 1.8 per cent this year, 2.0 per cent next year and 2.4 per cent in 2006.

■■ Somewhat weaker growth in the United States.

During the first six months of 2004 GDP in the United States increased by about 5 per cent year-on-year. Fresh national accounts data show that the corresponding figure for Q3 was 4.0 per cent. This was somewhat lower than expected by the Riksbank and other forecasters. As expected, though, household consumption expenditures rose relatively sharply. Investment continued to increase steeply, reflecting a benign investment climate with historically high profits and high business confidence (see Figures 24 and 25). Investment in housing and inventories, as well as exports, grew by less than anticipated. The contribution to demand from foreign trade was negative in Q3, too, and the trade balance deteriorated further.

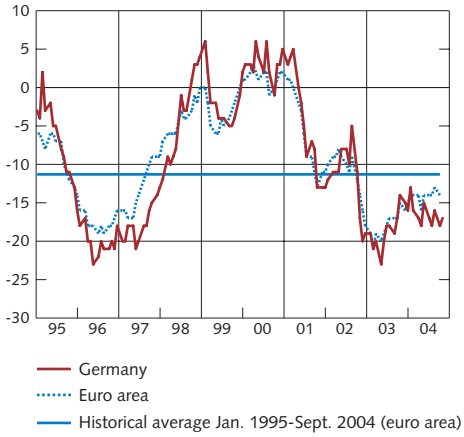
Indicators of growth prospects for Q4 provide a relatively positive picture of the activity level, in line with the forecast. The Institute for Supply Management's PMI in manufacturing fell in October for the third consecutive month but rebounded slightly in November. The index is still above 50, indicating that the sector is expanding (see Figure 24). Employment in October rose appreciably faster than expected, which should partly offset the effect of higher oil prices on consumption. Other indicators, too, point to rising activity at the beginning of the fourth quarter. One example is retail sales in October, which surpassed market expectations.

GDP growth is forecast to slow somewhat in 2005 and 2006, partly owing to less expansionary economic policy. Nevertheless, economic activity is still expected to grow robustly. Compared with October the forecast for GDP growth has been revised down slightly for the period 2004-2006, due in part to the unexpectedly weak GDP outcome for Q3 and a higher oil price (see Figure 18).

■■ Slower recovery in Japan.

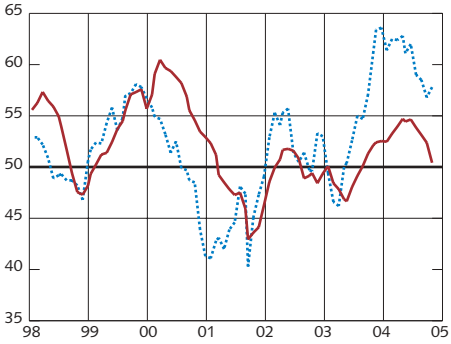
GDP growth in Japan was an annualised 6.3 per cent in 2004 Q1. Exports, investment and private consumption grew sharply. Corporate profits have also shown relatively robust growth and business confidence has increased (see Figure 26). Revised national accounts data for Q2 point to a continued recovery, albeit at a more sluggish rate. GDP growth in the second quarter was 1.1 per cent in annualised terms. According to preliminary national accounts data there was a further slowdown in Q3, with the economy growing by only 0.3 per cent in annualised terms. Private consumption continued

Figure 23. Household sector confidence in Germany and the euro area. Seasonally adjusted balance



Source: Directorate General for Economic and Financial Affairs.

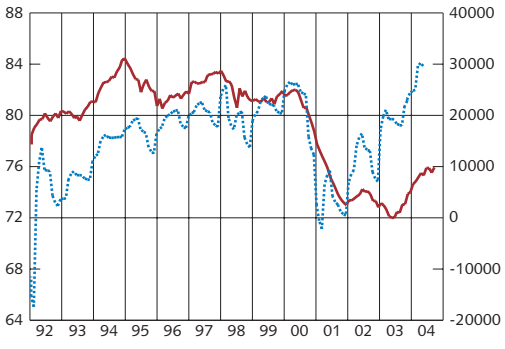
Figure 24. PMI in manufacturing: United States and the euro area. Index, seasonally adjusted



Note. A PMI figure above 50 indicates that the manufacturing industry is expanding; a reading below 50 indicates contraction.

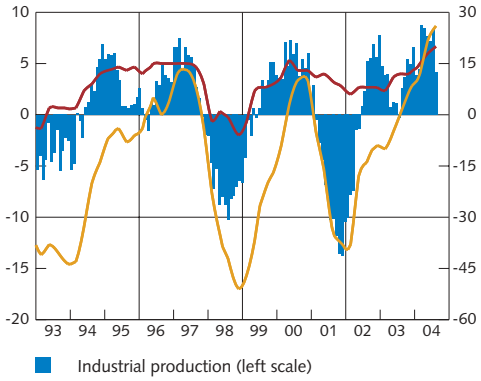
Source: NTC Research Ltd.

Figure 25. Capacity utilisation and profits in the US manufacturing sector. Per cent and USD million



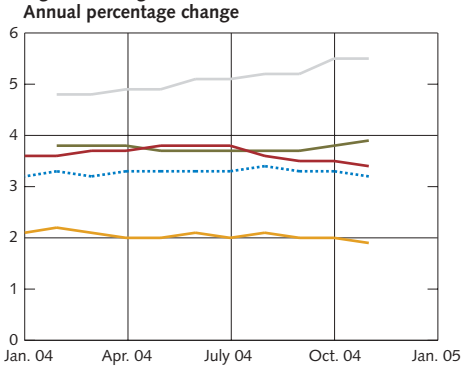
Sources: Federal Reserve Board and US Department of Commerce.

Figure 26. Japan: industrial production and Tankan. Seasonally adjusted annual changes and index



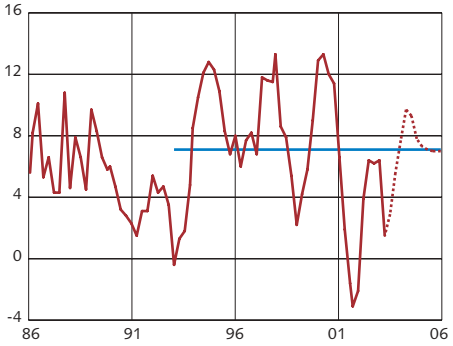
Sources: Bank of Japan, Ministry of Economy, Trade and Industry.

Figure 27. Consensus Forecasts for different regions: GDP growth 2005. Annual percentage change



Source: Consensus Economics Inc.

Figure 28. Swedish export market growth. Annual percentage change



Note. The broken line represents the Riksbank's forecast.

Sources: NIESR and the Riksbank.

to increase steeply, however. Investment contributed negatively in Q3, as during the second quarter.

Even though GDP growth was weak in Q3, the Japanese economy is expected to grow faster in coming quarters. Bright prospects in the business sector and rising profits suggest that investment will begin to pick up again. However, export growth is expected to moderate somewhat as demand slackens in Japan's largest export markets, the United States and China.

■■ Chinese growth expected to wane.

At the beginning of the year the Chinese authorities took certain measures with a view to dampening the investment boom there. This contributed to markedly lower GDP growth in Q2 compared with the immediately preceding quarters. The measures only had a temporary impact and the economy grew thereafter at an annualised 8.2 per cent in the third quarter. The authorities also raised the key policy rate for the first time since 1995. This should be seen as a further attempt to bring down growth towards a long-term sustainable level. GDP growth in China is expected to slacken somewhat in the period ahead. Chinese import demand is anticipated to remain relatively buoyant, supporting the other Asian countries.

■■ High growth in other parts of the world.

GDP growth in eastern and central Europe has been very strong to date this year. Russia is benefiting, among other things, from the high oil prices. Growth in the years ahead is expected to continue to be relatively high. External forecasters have recently revised up their forecasts for growth in eastern Europe and Latin America in 2005 (see Figure 27).

High commodity and oil prices, as well as a relatively weak dollar, have stimulated the Latin American economies so far in 2004. Export demand has been robust. Domestic demand, too, has grown firmly. The growth rate is expected to slacken somewhat in 2005 and 2006, due in some measure to lower expected GDP growth in the United States.

■■ Somewhat lower growth in Swedish export markets.

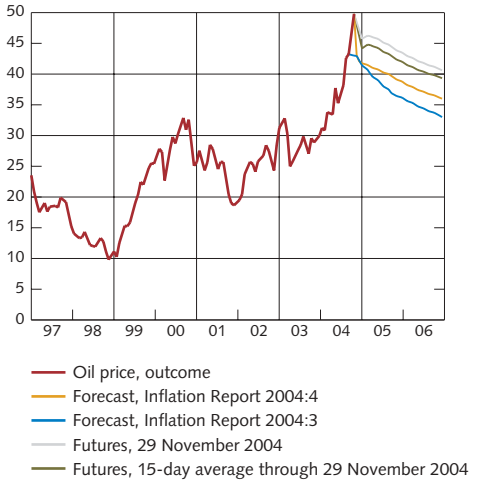
On the whole the outlook for Swedish exports is deemed to have deteriorated slightly compared with the assessment in the previous Inflation Report. The weaker growth forecasts for Sweden's key markets in Europe and the United States have prompted a downward revision of the forecast for export market growth in 2005. Over the coming two years export market growth is expected to slacken and to be broadly in line with the average since 1993 (see Figure 28).

■■ Unexpectedly high oil price.

In the previous Inflation Report the oil price was forecast to gradually fall back in the years ahead. Instead, the price of crude oil rose sharply

until the end of October. It then dropped back again (see Figure 29). The oil price in October and November has been higher than forecast in the previous Inflation Report. Prices of long-term futures contracts rose steeply when the oil price reached record levels above USD 50 at the end of October. They have only eased marginally since then. The Riksbank still expects the oil price to fall back in the period ahead. However, in the light of the recent developments and pricing in the futures markets, the oil price is now forecast to be higher this year and during the next two years compared with the assumption in October (see Table 3). Non-oil commodities prices have increased sharply in the past year but have fallen of late (see Figure 30).

Figure 29. The oil price: outcome and forecasts. USD



Sources: International Petroleum Exchange and the Riksbank.

Table 3. International conditions. Annual percentage change

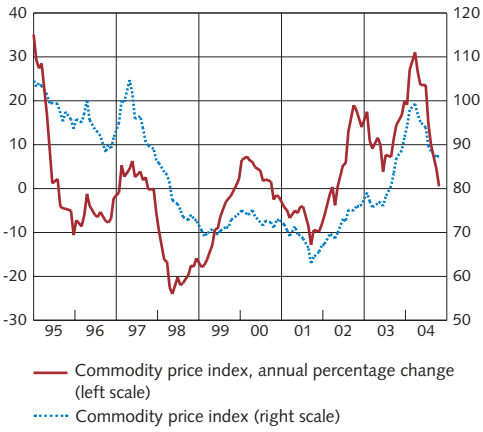
	GDP				CPI			
	2003	2004	2005	2006	2003	2004	2005	2006
United States	3.0	4.4 (4.5)	3.3 (3.4)	3.5 (3.6)	2.3	2.7 (2.6)	2.4 (2.2)	2.3 (2.3)
Germany	-0.1	1.7 (1.9)	1.6 (1.9)	2.2 (2.2)	1.0	1.7 (1.8)	1.5 (1.3)	1.5 (1.5)
France	0.5	2.2 (2.5)	2.0 (2.3)	2.3 (2.3)	2.2	2.4 (2.3)	1.9 (1.8)	1.8 (1.8)
United Kingdom	2.3	3.2 (3.3)	2.8 (2.9)	2.9 (2.7)	1.4	1.3 (1.6)	1.8 (1.8)	2.1 (1.9)
Denmark	0.0	2.1 (2.2)	2.2 (2.4)	2.5 (2.5)	2.0	1.1 (1.5)	1.9 (1.9)	2.0 (2.0)
Finland	1.9	3.0 (2.8)	3.0 (3.0)	2.9 (3.0)	1.3	0.1 (0.5)	1.4 (1.8)	1.9 (2.0)
Norway	0.6	3.3 (3.3)	2.9 (2.9)	2.7 (2.7)	2.5	0.7 (0.6)	2.1 (2.0)	2.5 (2.5)
Euro12	0.5	1.8 (2.0)	2.0 (2.2)	2.4 (2.4)	2.1	2.1 (2.1)	1.9 (1.8)	2.0 (2.0)
TCW-weighted	1.1	2.6 (2.7)	2.4 (2.5)	2.6 (2.6)	1.7	1.7 (1.7)	1.8 (1.7)	1.9 (1.9)
OECD 19	2.0	3.4 (3.5)	2.6 (2.8)	2.8 (2.8)	1.8	2.0 (1.9)	1.8 (1.7)	1.8 (1.9)

	2003	2004	2005	2006
GDP World	3.8	4.8 (4.9)	4.1 (4.2)	3.9 (3.9)
Swedish export market growth	4.1	8.6 (7.8)	7.1 (7.3)	6.9 (6.9)
Global PPI	0.8	2.4 (2.3)	2.3 (2.1)	1.7 (1.8)
Crude oil price. annual average (USD/barrel Brent Blend)	28.9	38.4 (37.9)	40.3 (38.4)	37.1 (34.4)

Note. CPI refers to HICP for Germany, the United Kingdom (from December 2003), Denmark and Finland. GDP for Norway refers to the mainland economy. OECD 19 refers to the EU countries (excluding Luxembourg), the United States, Canada, Japan, Norway and Switzerland. The figures in parentheses are the assessments in the previous Inflation Report. Swedish export market growth refers to growth in imports of goods for all countries that are recipients of Swedish exports. The forecast is a weighted average of each country's share of total Swedish exports 2002-2003. International producer prices in national currencies are a weighted average of national PPI series for manufactured goods. This weighted average includes 11 countries and is arrived at using TCW weights. The countries included are the United States, Germany, the United Kingdom, Norway, Finland, Denmark, Belgium, Japan, Canada, France and the Netherlands. These together comprise approximately 85 per cent of the total TCW weighting.

Source: The Riksbank.

Figure 30. Commodities: price developments in USD. Index and annual percentage change



Source: The Economist.

Revisions since the October Inflation Report.

- The forecast for the oil price has been revised up for the forecast period partly due to high outcomes.
- The forecast for GDP growth in the OECD area has been revised down, particularly for this year and next, owing to weak outcomes and a somewhat higher oil price. As a result the forecast for Swedish export market growth in 2005 has been revised down.
- The forecast for inflation in the United States, the euro area and globally has been revised up somewhat for 2004 and 2005 due to the higher oil price.

Economic developments in Sweden

The forecast for Swedish GDP growth in 2005 has been revised down somewhat because international demand is estimated to be slightly lower and the krona somewhat stronger. The growth rate in the period ahead is still expected to be high enough to lead to a rise in resource utilisation. Although there has not yet been a clear turnaround in the labour market, the situation is deemed to have stabilised. Looking ahead, domestic cost pressures are anticipated to mount but to be still relatively moderate at the end of the forecast period.

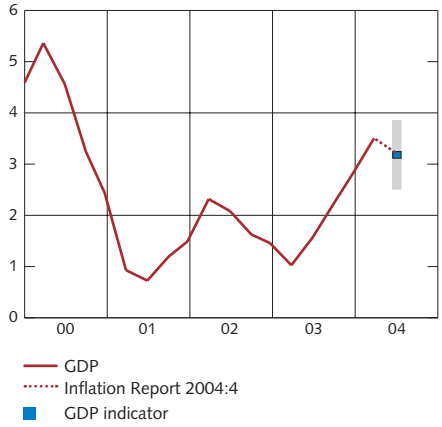
The Swedish economy grew by 3.7 per cent in the first half of this year compared with the corresponding period last year. The Riksbank's GDP indicator predicts a moderation of growth in the third quarter (see Figure 31).[1] GDP growth in the coming two years is expected to be somewhat lower than in 2004, but to stand nevertheless at around 3 per cent (see Figure 32). Swedish economic activity is therefore judged to continue to strengthen in the period ahead, fuelled by the expected cyclical upswing abroad and relatively loose monetary and fiscal policy in Sweden. To date, foreign trade has been the main driver of growth in demand, but in the period ahead domestic demand is assumed to contribute in greater measure.

Compared with the previous Inflation Report, the forecast for GDP growth in 2005 has been revised down somewhat. This mainly reflects expectations of slightly lower international demand and a somewhat stronger krona, which is anticipated to result in weaker growth in Swedish exports. The revised international growth outlook is also anticipated to affect business investment, which is assumed to increase slower in 2005 than previously expected. Furthermore, the labour market and business-sector wages are expected to weaken slightly in comparison to the previous forecast. The robust productivity growth is forecast to continue this year but to moderate over the coming two years. As economic activity picks up in the years ahead the spare resources in the economy will decrease and domestic cost pressures increase.

■■ Mixed signals from industry.

Industrial activity seems to have been vigorous over the autumn, although the signals have been somewhat mixed. Data for industrial production and new orders up to and including September do point to a slight dampening of the growth rate in the summer and autumn (see Figure 33). However, according to the National Institute of Economic Research's (NIER) business tendency surveys, order growth has remained firm and manufacturers' assessment of the size of

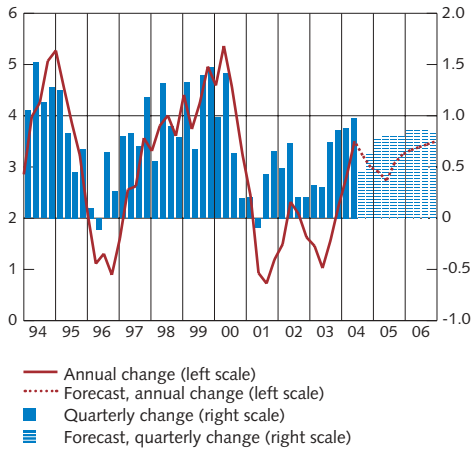
Figure 31. GDP: outcome and forecast.
Annual percentage change of calendar-adjusted and seasonally adjusted data



Note. The grey line is the 95 per cent confidence interval from the GDP indicator. The broken line represents the Riksbank's forecast.

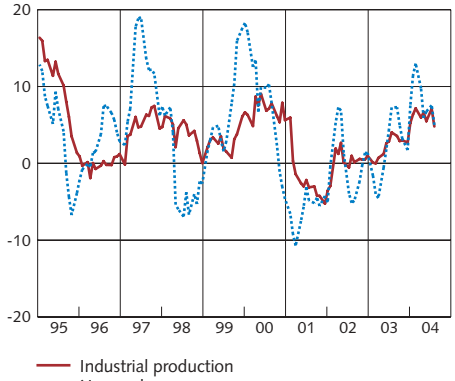
Sources: Statistics Sweden and the Riksbank.

Figure 32. GDP: outcome and forecast for calendar-adjusted and seasonally adjusted series.
Quarterly and annual change in per cent



Sources: Statistics Sweden and the Riksbank.

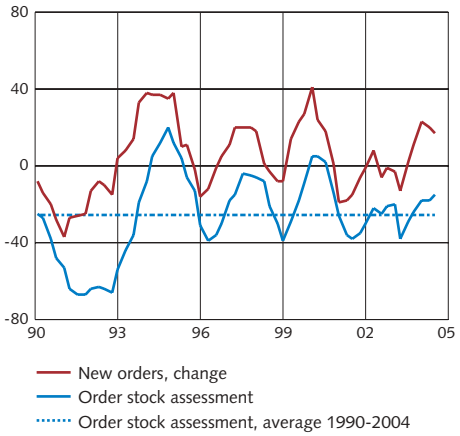
Figure 33. Industrial production and new orders in industry.
Annual percentage change, three-month moving average



Source: Statistics Sweden.

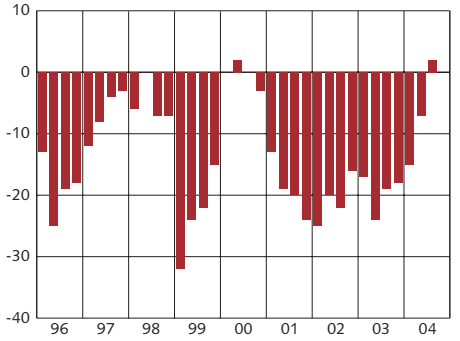
1 Estimates of the GDP indicator are based on monthly data for manufacturing output, retail sales and hours worked in the public sector and other service industries. For a more in-depth discussion, see the box "A model for indicating quarterly output changes" in Inflation Report 2002:4.

Figure 34. Total new orders in manufacturing. Quarterly change and current sentiment regarding the order stock, seasonally adjusted balance



Source: NIER.

Figure 35. Firms' profitability assessment according to the NIER's quarterly business tendency survey. Seasonally adjusted balance



Source: NIER.

Figure 36. Exports of goods: outcomes and forecasts for seasonally adjusted series. Quarterly and annual change in per cent

Sources: Statistics Sweden and the Riksbank.

their order stock has become increasingly positive (see Figure 34). Production volumes have continued to increase at a decent pace and the confidence indicator for manufacturing has remained at a relatively high level. The business tendency survey also shows that manufacturing firms are unusually positive about their profitability situation (see Figure 35).

Current business sentiment varies somewhat across different industries. In the investment goods industry the picture is bright and fairly consistent between the various sub-sectors. As regards intermediate goods the steel industry has reported continued robust growth and an increase in sales prices. Demand in forestry, however, is practically unchanged. In the consumer goods industry growth in new orders fell short of firms' expectations, leading to higher dissatisfaction over the size of the order stock.

Table 4. GDP by expenditure in the main scenario. Annual percentage change

	2003	2004	2005	2006
Private consumption	1.5	2.4 (2.5)	2.8 (2.9)	3.0 (3.0)
Government consumption	0.8	1.0 (1.0)	1.3 (1.3)	1.4 (1.4)
Gross fixed capital formation	-1.5	4.0 (3.5)	7.5 (8.0)	6.5 (6.3)
Change in inventories	0.4	-0.1 (-0.1)	0.0 (0.0)	0.0 (0.0)
Exports	5.0	9.7 (9.6)	6.0 (6.3)	6.3 (6.5)
goods	4.9	10.0 (10.0)	6.1 (6.5)	6.5 (6.7)
services	5.4	8.5 (8.5)	5.6 (5.6)	5.6 (5.6)
Imports	4.9	6.9 (6.8)	6.9 (7.2)	6.9 (6.9)
goods	6.1	7.5 (7.4)	7.4 (7.9)	7.4 (7.5)
services	1.5	5.3 (5.3)	5.2 (5.2)	5.2 (5.2)
GDP at market prices	1.5	3.6 (3.6)	3.0 (3.2)	3.2 (3.2)

Note. The figures in parentheses are the forecasts in the October Inflation Report. The data refer to actual, non-calendar-adjusted, growth rates.

Sources: Statistics Sweden and the Riksbank.

■■ Exports continuing to rise.

Manufacturing activity has strengthened this year, primarily owing to a steep rise in exports of goods. During the first half of this year exports of goods increased in real terms by about 10 per cent according to the National Accounts, compared with the same period in 2003. Exports have been bolstered mainly by vigorous growth in Swedish export markets this year. In addition, it seems that Swedish exports of goods have been supported by particularly strong demand in the world market for categories of goods produced by Swedish firms. Furthermore the relative price of exports has dropped (see Figure 37). One reason for the falling Swedish export prices is the continued price decline in the telecommunications and automotive industries. Prices of paper and pulp products have also fallen over a long period.

The NIER's quarterly business tendency survey from October shows that exporters are relatively optimistic about both present and expected new orders (see Figure 38). At the same time Statistics Sweden's survey indicates that new orders in the export industry

decreased between Q2 and Q3. The foreign trade statistics deflated with the export price index points to a year-on-year rise in goods exports of some 8 per cent in Q3 this year. That is somewhat lower than expected in the Bank's forecast. This figure is uncertain, however, since it is usually the subject of major revisions. Thus, as in the previous Inflation Report, exports are expected to rise by a little less than 10 per cent in 2004.

In the years ahead growth in exports of goods is estimated to be slacker than assumed in the previous Inflation Report. This downward revision reflects the Bank's forecast of slightly weaker international economic activity and thereby somewhat slower growth in Swedish export markets, compared with the October forecast. Moreover, the krona is assumed to be stronger than predicted in the previous Inflation Report, which will hold back export growth.

■■ Pickup in investment continues.

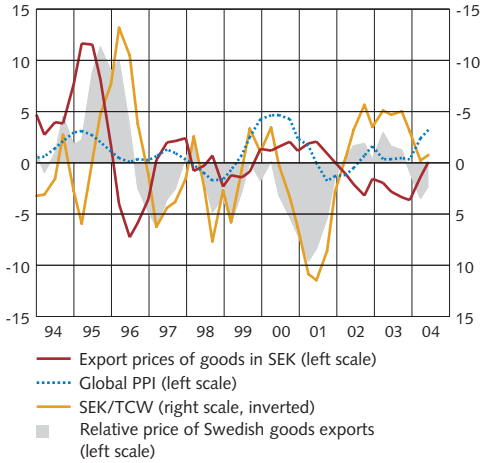
The relatively high GDP growth from the middle of last year has resulted in a gradual increase in the utilisation of the capital stock in mainly manufacturing. The NIER's most recent quarterly business tendency survey suggests that capacity utilisation in manufacturing has continued to pick up. The proportion of firms reporting machinery and plant as their primary limiting factor has not continued to rise, however. At the same time, business tendency data for manufacturing indicate that a relatively large proportion of firms have expanded their production capacity and plan to continue to do so in the coming months. The survey also shows that construction activity has strengthened further and that optimism among construction firms is high. Data for new apartment starts in Q3 and Statistics Sweden's investment survey for October both indicate that residential investment this year might be somewhat more robust than forecast in the previous Inflation Report. In addition, the investment climate is benign. Real interest rates are low and firms have consolidated their balance sheets. Companies have improved both their solvency and liquidity. All in all, therefore, investment growth is forecast to be relatively strong in the period ahead (see Figure 39).

Although most indicators point to a brisk rise in investment next year, there are a couple of factors that could dampen the upswing. Compared with October, international demand is predicted to be lower and the oil price expected to be higher over the forecast period. This should have an adverse impact on real economic developments in general and on firms' willingness to invest, mainly in 2005. Growth in investment is therefore expected to be somewhat lower in 2005, compared with the forecast in the previous Inflation Report. The forecast for 2006 is unchanged.

■■ Private consumption to grow in line with economic activity.

As expected, growth in private consumption has increased in 2004. During the first half of the year, growth in consumption averaged an annualised rate of 2.3 per cent. The forecast for relatively robust

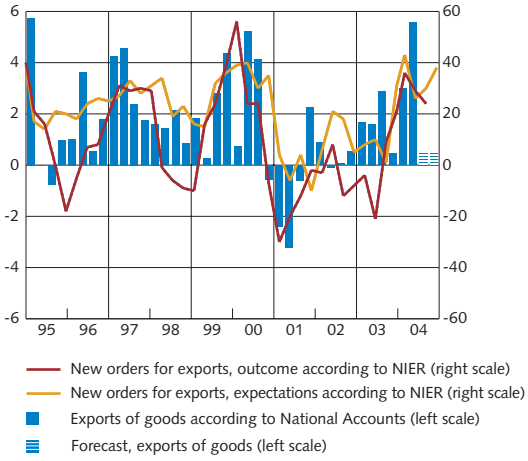
Figure 37. Relative price developments for Swedish goods exports, export prices of goods in SEK, global PPI and SEK/TCW.
Annual percentage change



Note. When the relative price is calculated the global PPI is used as a measure of international price developments.

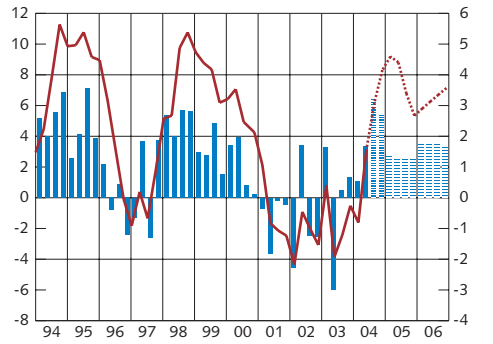
Sources: Statistics Sweden and the Riksbank.

Figure 38. New orders for exports and exports of goods.
Balance and quarterly change in per cent



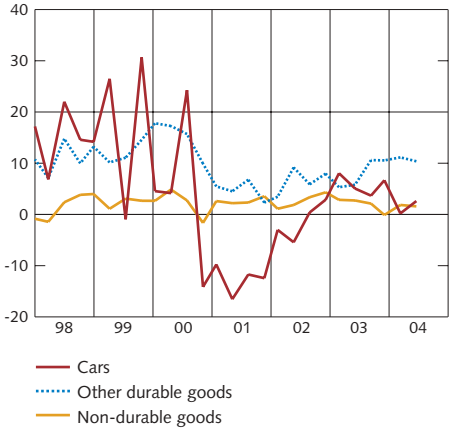
Sources: Statistics Sweden, NIER and the Riksbank.

Figure 39. Gross fixed capital formation: outcomes and forecasts for seasonally adjusted series.
Quarterly and annual change in per cent



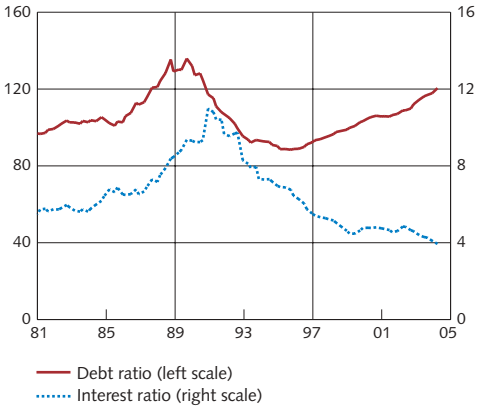
Sources: Statistics Sweden and the Riksbank.

Figure 40. Total private consumption and consumption broken down into different components.
Annual percentage change



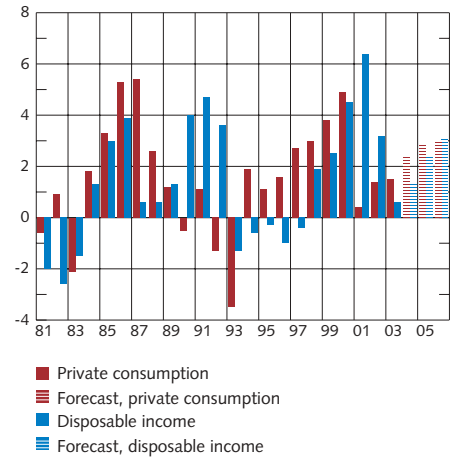
Source: Statistics Sweden.

Figure 41. Households' debt ratio and interest ratio.
Per cent of disposable income



Sources: Statistics Sweden and the Riksbank.

Figure 42. Private consumption and disposable income.
Annual percentage change



Sources: Statistics Sweden and the Riksbank.

consumption growth this year is mainly supported by retail sales data, even though monthly figures for October showed a somewhat lower increase than earlier this year. The NIER's Consumer Survey for November indicates somewhat lower household optimism about the future. It is particularly households' outlook on the Swedish economy and unemployment that is gloomier, while their expectations regarding their own finances has been largely unchanged in recent months.

Consumption of other durable goods has been the main contributor to the rising consumption growth this year (see Figure 40). The low level of interest rates and high turnover in the housing market, coupled with a comparatively optimistic outlook, are likely some of the factors boosting consumption of durable goods.

Households' debts have continued to mount at a faster pace than their disposable incomes, and the debt ratio has risen (see Figure 41). As regards the household sector as a whole, the new loans can be used for financial saving, for consumption or for saving in newly constructed homes. Household borrowing may also rise as a result of an increase in housing prices. If the new loans are used in large part to finance increased consumption, consumption should grow faster than incomes and the saving ratio should decrease as a result. That was also the case at the end of the 1990s, when the ratio dropped fairly sharply. During the first years of the current decade the ratio increased quickly again and, despite a small decline last year, it is now relatively high compared with the average for the recent decades (see Figure 43).

In the coming years growth in consumption is forecast to pick up further, averaging close to 3 per cent. As employment rises households' wage incomes are anticipated to increase faster. The tax cuts and allowance hikes for households that the Government announced in the Budget Bill will also contribute to the rising incomes. All in all, households' disposable incomes are forecast to increase by an average of some 3 per cent in the coming two years.

The low level of interest rates also contributes to the growth in consumption. Households that have variable-rate loans or that refinance their fixed-rate loans have, for a given loan amount, lower interest costs and thereby greater scope for consumption this year compared to last. Continued rises in house prices are also assumed to bolster consumption by increasing homeowners' opportunities to borrow. The rate of growth in housing prices is estimated to slow down over the forecast period, however, which means that the impact on consumption should gradually diminish. A continued recovery in equity prices may stimulate consumption in the longer term as well, though.

The forecast for private consumption is essentially the same as in the October Inflation Report. However, the persistently high oil price is expected to contribute to uncertainty over future economic developments and thereby to lead to a postponement of some consumption. Consumption growth is therefore anticipated to be marginally lower than before.

■■ Imports to rise in line with domestic demand.

Imports of goods increased by roughly 5 per cent in the first half of this year compared with the same period last year (see Figure 44). As in the October Report, growth in imports of goods is expected to pick up somewhat in the second half of this year, mainly because investment growth is forecast to rise. The foreign trade statistics deflated with the import price index also suggest that goods imports in Q3 rose by a little more than 8 per cent year-on-year, which is consistent with the forecast. Next year, as a result of somewhat weaker domestic demand, growth in imports of goods is assumed to be less than forecast in October.

■■ Weak public finances.

In the previous Inflation Report, the forecasts for general government net lending in the next two years were revised down owing to the proposals in the Budget Bill for 2005. No new information in this area has been received since then. The somewhat lower GDP growth next year is only expected to have a marginal impact on the public finances, and the forecast is therefore largely unchanged. As in the previous Report, general government net lending is predicted to fall over the forecast period, to 0.4 per cent of GDP in 2006. The public finances are analysed in more detail in the box "The significance of fiscal policy for monetary policy".

The forecast for public consumption has not been revised since the previous Inflation Report. Growth in central government consumption is estimated to be low this year and next (see Table 5). This is because the Government has prioritised local government consumption expenditures, for instance on healthcare, care services and schools, over those of central government, as reflected in the sharp hikes in grants to local authorities in 2005. Local governments' consumption is expected to rise moderately over the forecast period. All in all, growth in public sector consumption is forecast to pick up over the forecast period due to expansionary fiscal policy and the relatively robust economic upturn.

Table 5. Forecast for public consumption.
Annual percentage change

	2003	2004	2005	2006
Local government	0.7	1.2 (1.2)	1.7 (1.7)	1.4 (1.4)
Central government	0.8	0.5 (0.5)	0.4 (0.4)	1.4 (1.4)
Public consumption	0.8	1.0 (1.0)	1.3 (1.3)	1.4 (1.4)

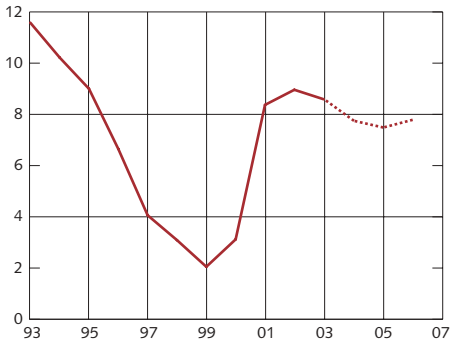
Note. The figures in parentheses are the forecasts in the October Inflation Report.

Sources: Statistics Sweden and the Riksbank.

■■ Continued weak labour market.

The robust growth in output so far this year has been driven by increased average hours worked and higher productivity. Capacity utilisation has picked up but this has not yet led to any significant rise in the number of employed. The historical pattern is for employment

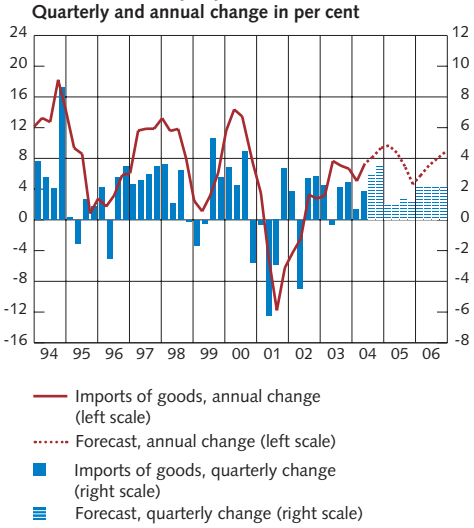
Figure 43. The saving ratio.
Per cent of disposable income



Note. Saving is calculated as savings including negotiated pension supplements. The broken line represents the Riksbank's forecast.

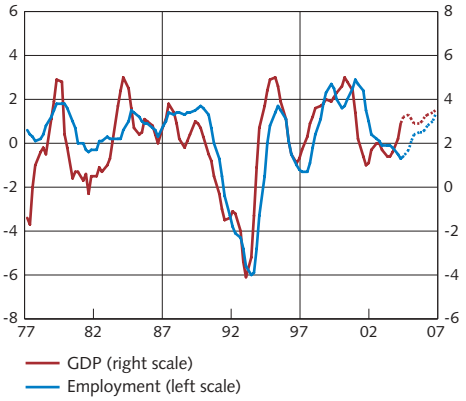
Sources: Statistics Sweden and the Riksbank.

Figure 44. Imports of goods: outcomes and forecasts for seasonally adjusted series.
Quarterly and annual change in per cent



Sources: Statistics Sweden and the Riksbank.

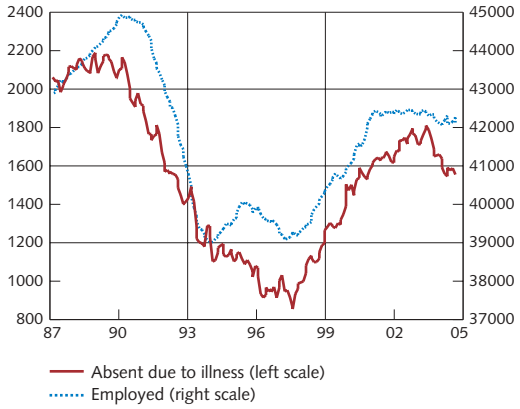
Figure 45. GDP and employment.
Annual percentage change



Note. The GDP series is seasonally adjusted and calendar-adjusted. The Riksbank has spliced the series for 1976-1993. The broken lines are the Riksbank's forecasts.

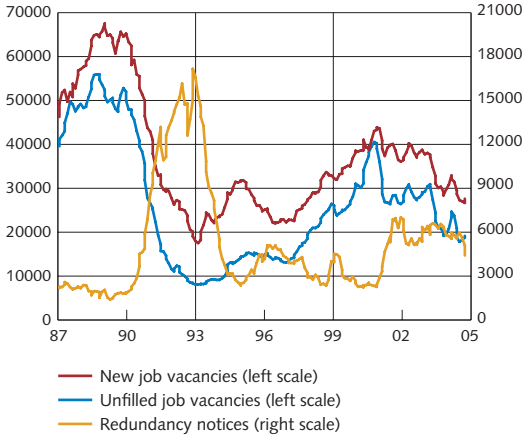
Sources: Statistics Sweden and the Riksbank.

Figure 46. Number of employed and absentees from work due to illness.
100s of persons, seasonally adjusted, three-month moving average



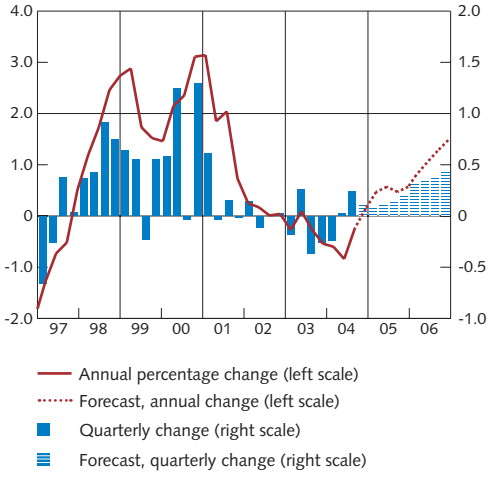
Source: Statistics Sweden.

Figure 47. New and unfilled vacant jobs with a duration of more than 10 days and number of redundancy notices.
Seasonally adjusted, three-month moving average



Source: National Labour Market Board.

Figure 48. Number of employed: outcomes and forecasts for seasonally adjusted series.
Quarterly and annual changes in per cent



Sources: Statistics Sweden and the Riksbank.

to respond with some lag to a change in output. This time, though, it seems to be taking unusually long for employment to start to increase (see Figure 45). During the first three quarters this year the number of people in work has declined somewhat year-on-year. At the same time the number of people absent from work has decreased, partly due to a reduction in sick leave (see Figure 46). As a result the number of employed to date this year has dropped on average by 24,000, or a little less than 0.6 per cent, compared with the same period in 2003. Between Q2 and Q3 this year, however, employment rose modestly in seasonally adjusted terms, only to fall again in October. These developments are roughly consistent with the assumptions in the most recent Inflation Report.

The number of new job vacancies at Swedish employment offices continued to fall on an annual basis in September and October but there was also a drop in the number of redundancy notices (see Figure 47). Statistics Sweden's vacancy survey in Q3 also pointed to a decline in the number of vacant jobs on an annual basis. It was in the public sector that the number of vacancies fell, while the private sector saw a weak rise. Furthermore, the NIER's latest business tendency survey showed that firms are slightly more positive than before about recruiting new staff. The most expansive recruitment plans were to be found in the private services sector, notably among computer consultants and other business services. As regards the local government sector, however, the most recent business tendency data pointed to further staff cuts in local authorities in the near future. Even though labour demand is still weak and the various indicators are mixed, the labour market is now deemed to be stabilising.

The economic upturn is expected to lead to a modest rise in employment in 2005 (see Figure 48). Next year, employment is forecast to increase mainly in the public sector due to the higher grants to local governments. Employment in the business sector is estimated to increase only moderately in 2005, after which it will rise faster in 2006 (see Figure 49).

During the first half of this year, average hours worked per employee rose on average by 1.7 per cent year-on-year. The fast increase is largely due to 2004 having four more working days than 2003. But even disregarding the calendar effect there was a slight increase in average hours worked. In 2005 average hours worked is expected to continue to rise moderately since the demand for labour in the initial phase of a cyclical upswing is mainly met through a rise in the number of hours worked by those already in employment, partly through more overtime. A fall in sick leave has also contributed to a pickup in regular working hours. Towards the end of the forecast period, however, actual average hours worked is expected to increase slower because 2006 has fewer working days and because the demand for labour is then anticipated to be met in larger measure through recruitment.

According to the Labour Force Survey the number of people in the labour force to date this year has risen on average by 0.4 per cent

year-on-year, which is line with the October forecast. Over the coming two years the labour force is expected to increase only modestly (see Table 6). Growth in the working-age population is anticipated to be firm but the proportion of people in the age group 25-54 years is estimated to fall. That could dampen the labour supply since this group has the highest participation rate. The number of sick outside the labour force has continued to rise in 2004. One contributory factor is that many long-term sick are leaving the labour force and instead receiving sickness and activity compensation (formerly the disability pension). This is predicted to continue in 2005 and 2006 as well, but to a lesser extent. The number of participants in labour market programmes has risen sharply over the autumn owing to higher grants to the National Labour Market Board. The number of participants in different kinds of labour market policy measures is forecast to increase at the beginning of 2005 and then to stabilise at a high level.

Open unemployment averaged 5.6 per cent (seasonally adjusted data) in the period January-October this year, which is 0.8 percentage points higher than the corresponding period last year. This reflects both a higher number of unemployed and a longer average duration of unemployment (see Figure 50). Recently, however, the length of unemployment appears to have stabilised. This may be because the number of participants in labour market programmes is now rising. Open unemployment fell slightly between Q2 and Q3, as forecast in the most recent Inflation Report. It is forecast to decrease in Q4 as well, mainly owing to a higher number of participants in labour market programmes but also because of a modest pickup in employment. As labour market prospects improve, open unemployment is expected to continue to drop over the next two years. Total unemployment is not anticipated to fall quite as much, however.

Table 6. Labour market forecast.
Annual percentage change

	2003	2004	2005	2006
Labour force	0.7	0.3 (0.3)	0.1 (0.1)	0.4 (0.5)
Number of employed	-0.2	-0.4 (-0.4)	0.5 (0.6)	1.2 (1.2)
Average hours worked	-1.0	1.3 (1.2)	0.2 (0.3)	0.0 (0.0)
Number of hours worked	-1.2	0.9 (0.9)	0.7 (0.9)	1.2 (1.2)
Open unemployment. per cent of labour force	4.9	5.5 (5.5)	5.2 (5.1)	4.5 (4.4)
Labour market programmes. per cent of adjusted labour force	2.1	2.3 (2.3)	2.4 (2.4)	2.4 (2.4)

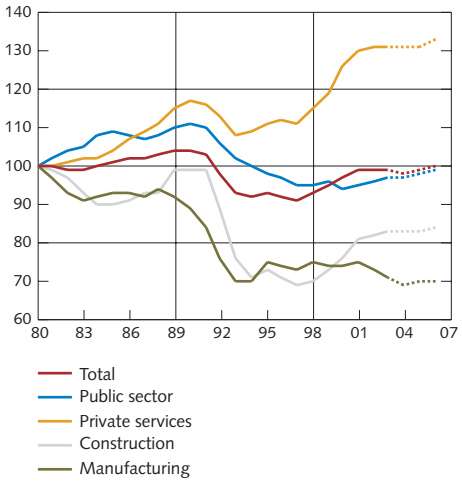
Note. The figures in parentheses are the forecasts in the October Inflation Report. The adjusted labour force is the total of the number of people in the labour force and the number of participants in labour market educational programmes.

Sources: The National Labour Market Board, Statistics Sweden and the Riksbank.

■■ Continued strong productivity growth.

During the first half of this year business sector productivity has continued to rise sharply. It is primarily in manufacturing that productivity growth has been robust, while it as usual has been more modest in service sectors. Productivity growth varies considerably over the business cycle, but it is clear that the rate of increase was higher

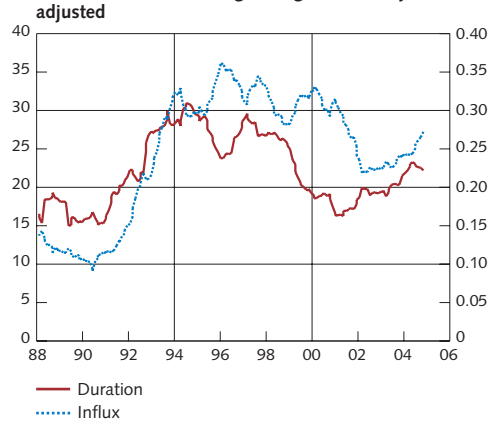
Figure 49. Number of employed in different sectors. Index: 1980=100



Note. The broken lines represent the Riksbank's forecasts.

Sources: Statistics Sweden and the Riksbank.

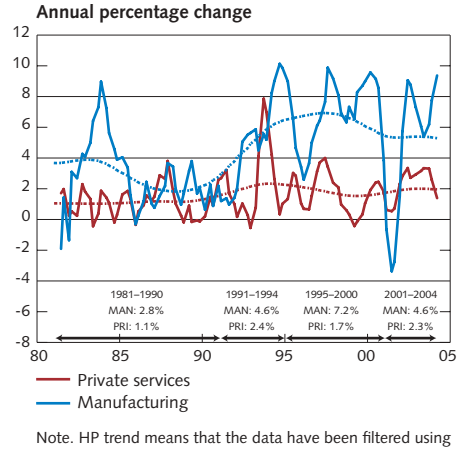
Figure 50. Unemployment: influx and duration. Per cent of the labour force and number of weeks, 12-month moving average, seasonally adjusted



Note. The number of people who have been unemployed for one week as a percentage of the labour force is used as a measure of the influx, and the number of unemployed in total divided by the number who have been unemployed for one week as a measure of the duration.

Sources: Statistics Sweden and the Riksbank.

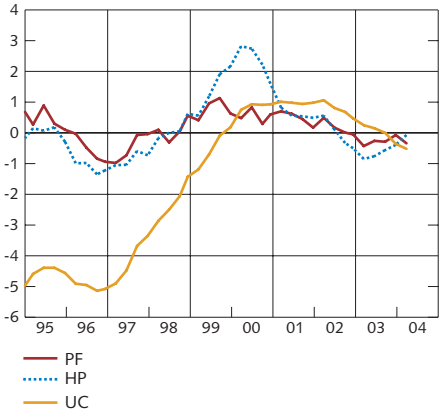
Figure 51. Productivity growth in manufacturing and private services sector since 1980 and HP trends.
Annual percentage change



Note. HP trend means that the data have been filtered using the Hodrick-Prescott filter.

Sources: Statistics Sweden and the Riksbank.

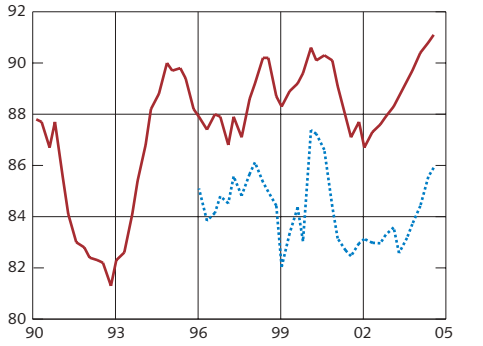
Figure 52. Econometric estimates of the output gap.
Per cent of potential GDP



Note. UC is the Unobserved Components method, HP stands for the Hodrick-Prescott filter and PF is the production function approach.

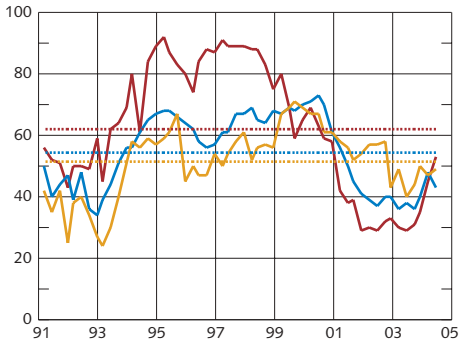
Sources: Statistics Sweden and the Riksbank.

Figure 53. Capacity utilisation in industry according to Statistics Sweden and the NIER.
Seasonally adjusted, per cent



Sources: Statistics Sweden and NIER.

Figure 54. Proportion of firms with full capacity utilisation in a number of service sectors.
Seasonally adjusted, per cent



Note. The broken lines represent the averages for the period 1991Q3 to 2004Q3.

Source: NIER.

during the 1990s than during the 1980s (see Figure 51). This is true of both manufacturing and parts of the private services sectors. As in the previous Inflation Report, it is judged that some of the recent robust rise is due to cyclical factors. As a result productivity growth is expected to slacken somewhat in the coming two years, as is the norm when economic activity picks up. However, some of the vigorous productivity growth is deemed to reflect longer-term factors such as tougher competition and an increased use of IT. As a result average productivity growth in the period 2004 to 2006 is forecast, as in the previous Inflation Report, to be roughly the same as that seen in the 1990s.

■■ Gradually increasing resource utilisation.

Resource utilisation in the Swedish economy is measured using different estimates of the output gap. As a new GDP outcome has not yet been released, the most recent estimates of the gap are the same as those in the last Inflation Report (see Figure 52). However, the NIER's quarterly business tendency survey for October points to a slight pickup in capacity utilisation in manufacturing, construction and some service sectors, which was also expected given that economic activity is forecast to increase relatively briskly (see Figure 53). Capacity utilisation in the service sectors is still relatively low, though (see Figure 54). Shortage data, i.e. the percentage shares of the firms in each sector reporting a shortage of labour, are also generally low. In manufacturing and construction, shortages have edged up from their lowest level in 2003, but the levels are still very low in a historical perspective (see Figure 55). The business tendency survey also shows that firms in consultant industries such as other business services are reporting a strong rise in demand and are now increasing their staff numbers, but without it leading to any apparent shortage of labour. In the computer consultants and computer services sector, too, mounting demand is leading to increased recruitment, and shortages have also continued to rise in this sector. According to the latest quarterly business tendency survey roughly one-third of computer companies reported a shortage of labour, which can be compared with the latter half of the 1990s, when around 80 per cent of these firms experienced a shortage of manpower (see Figure 56).

Resource utilisation in the Swedish economy is currently judged to be moderate, especially given the labour market situation. As the growth forecast for 2005 has been revised down it is reasonable to assume that resource utilisation will be somewhat slacker towards the end of the forecast period, compared with the forecast in the previous Inflation Report. Nevertheless, it is still assumed that resource utilisation by the end of 2006 will have reached a level that no longer restrains increases in prices or wages.

■■ Subdued but rising wage inflation in the business sector in the years ahead.

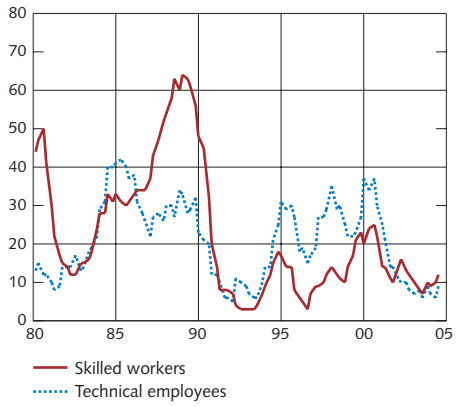
The weak labour market conditions in recent years have dampened the rate of wage increases in the business sector. The rate has

slackened throughout the sector, but the slowdown has been sharpest in construction. The collective agreements that have been settled in the business sector earlier this year have also involved lower wage increases than the wage bargaining round in 2001. According to preliminary short-term wage statistics for September, business-sector wages rose by 2.8 per cent during the first nine months of this year compared with the same period in 2003. However, the preliminary outcome is expected to be revised up as the outcomes from local negotiations are gradually registered in the data. So far this year the rate of wage increases has been revised up by about 0.3 percentage points, compared with the first preliminary outcome. In the public sector, the rate of wage increases has been held up despite the strained budgets of local governments. To date, wages in the public sector have risen in 2004 by 3.9 per cent year-on-year.

Business-sector wages are forecast to increase by 3.1 per cent this year, which is 0.7 percentage points lower than the average rate of increase over the past three years (see Table 7). The proportion of firms reporting a shortage of labour is still relatively low, even though a slight pickup has been noted recently. With GDP growth forecast to be lower next year, there is expected to be somewhat more spare resources in the economy. Wage inflation in the business sector will therefore be held back, with wages expected to increase more slowly in 2005 than forecast in the October Report. The proposal to introduce a new system for sick pay from 1 January 2005 would involve employers taking a bigger financial responsibility for employees on sick leave but would also entail a reduction in employers' national social insurance contributions. The proposal is deemed to be cost-neutral for employers as a whole and does not change the forecast for other wage costs. Towards the end of the forecast period, wage costs in the business sector are estimated to rise by 4 per cent, which is unchanged compared with the October Report.

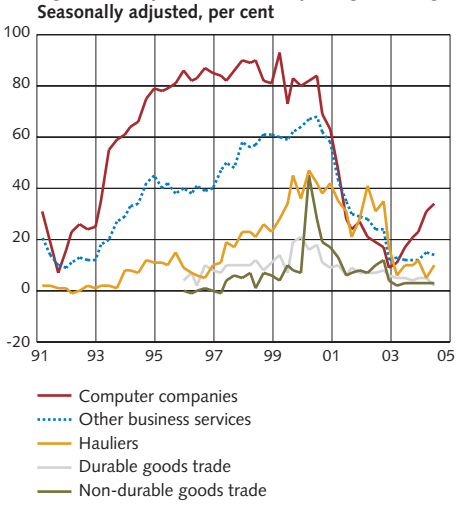
In the central government sector a preliminary three-year agreement has been concluded between the Swedish Confederation of Professional Associations and the Swedish Agency for Government Employers (SAGE). As before, the agreement, which covers some 75,000 employees, does not specify an explicit figure for wage increases nor guarantee a minimum level of wage hikes, i.e. wage formation will be conducted locally. Among other things, the agreement includes rules for the negotiation process, the work environment and job-security issues. The Swedish Union of Service and Communication Employees has also signed an agreement with SAGE, covering roughly 25,000 workers. The parties settled on a three-year agreement, for which the total value is estimated at 8.3 per cent, including a minimum daily amount for holiday pay. The settlements in the central government sector are expected to follow those in the business sector, implying a lower level compared with the previous agreement period. As regards local governments, collective agreements for some 1 million employees will be renegotiated in spring 2005. These negotiations will take place against the

Figure 55. Proportion of manufacturing firms reporting a shortage of skilled workers and technical employees. Seasonally adjusted, per cent



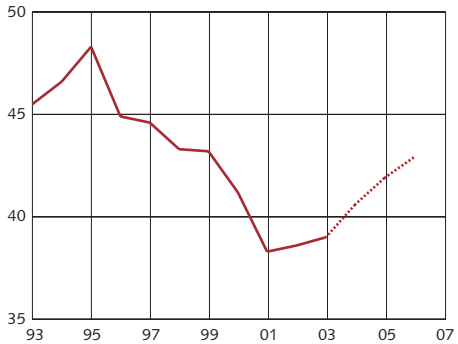
Source: NIER.

Figure 56. Proportion of firms reporting a shortage of staff. Seasonally adjusted, per cent



Source: NIER.

Figure 57. Profit share in the business sector. Share of value added



Note. The broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

background of more benign economic conditions than was the case for the business sector's negotiations.

The forecast for business-sector unit labour costs during the forecast period is largely the same as in the previous Inflation Report. A somewhat lower rate of wage increases next year is expected to lead to slightly lower unit labour costs. In 2006 unit labour costs are forecast to rise by 2.1 per cent, as in the previous Inflation Report. The profit share in the business sector is expected to increase over the forecast period (see Figure 57).

Table 7. Wages and unit labour costs. Annual percentage change

	2003	2004	2005	2006
Nominal wage, whole economy	3.5	3.4 (3.4)	3.6 (3.6)	3.8 (3.8)
Nominal wage, business sector	3.2	3.1 (3.2)	3.4 (3.5)	3.9 (3.9)
Other wage costs (contribution), business sector	1.3	0.3 (0.3)	0.2 (0.2)	0.2 (0.2)
Total wage costs, business sector	4.5	3.3 (3.4)	3.6 (3.7)	4.0 (4.0)
Total hourly wage costs, business sector, adjusted for the number of working days	4.7	2.5 (2.6)	3.6 (3.7)	4.4 (4.4)
GDP in the business sector	1.7	4.0 (4.1)	3.4 (3.6)	3.6 (3.6)
Number of hours worked, business sector	-1.9	0.6 (0.6)	0.7 (0.9)	1.3 (1.3)
Average labour productivity, business sector	3.7	3.4 (3.5)	2.7 (2.7)	2.3 (2.3)
Unit labour costs, business sector	1.0	-0.9 (-0.8)	0.9 (1.0)	2.1 (2.1)

Note. The figures in parentheses are the forecasts in the October Inflation Report. The forecasts are based on the National Mediation Office's short-term wage statistics. The items do not sum up due to rounding.

Sources: Statistics Sweden and the Riksbank.

Revised forecasts since the October Inflation Report.

- The GDP forecast has been revised down somewhat for 2005.
- The forecasts for growth in exports and gross capital formation in 2005 have been revised down owing to lower expected international demand and a stronger krona.
- The forecast for private consumption in 2005 has also been revised down marginally.
- The forecast for growth in goods imports in 2005 has been revised down because domestic demand is expected to be somewhat weaker.
- Due to somewhat lower demand the forecast for employment, both in terms of the number of employees and the number of hours worked, has been revised down marginally for 2005.
- The forecast for wage increases in the business sector has been revised down by one-tenth of a percentage point for this year and next year. The revision for this year is due to outcomes and for next year to a somewhat weaker labour market.

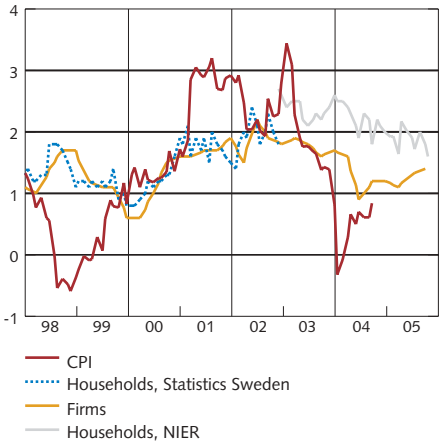
Inflation expectations

Different agents' expectations of future price developments have, through their impact on pricing and wage formation, direct effects on actual inflation. The expectations are affected by several different factors such as the actual inflation rate, the Riksbank's monetary policy signalling, and macroeconomic developments in general.

Households' expectations of inflation one year ahead have dropped somewhat during the autumn (see Figure 58). In November, their expectations were anchored at 1.6 per cent, which is 0.4 percentage points lower than in the previous Inflation Report. Firms' expectations of inflation have been more stable. The National Institute of Economic Research's (NIER) business tendency survey in October showed that firms had marginally revised up their expectations of inflation one year ahead since the previous survey. Firms are now expecting an inflation rate of 1.4 per cent one year from now. Neither households' nor firms' expectations appear to have been affected by the recent spike in oil prices.

The results of Prospera's survey in November point to marginally higher inflation expectations compared with the September survey (see Figure 59 and Table 8). The groups that have revised up their expectations most are employers and employees. Purchasing managers in manufacturing still have the highest expectations over all time horizons. Money market agents expect an inflation rate of 2.0 per cent in two years. This group bases its expectations on the assumption that the repo rate will be raised to 2.25 per cent within three months, to 2.75 per cent within a year, and to 3.25 per cent within two years, while the Riksbank's forecast is based on the assumption of a constant repo rate. To sum up, expectations of inflation one year ahead are somewhat below 2 per cent, most likely due to the low actual inflation rate. Expectations of inflation two and five years ahead are marginally higher than the Riksbank's target.

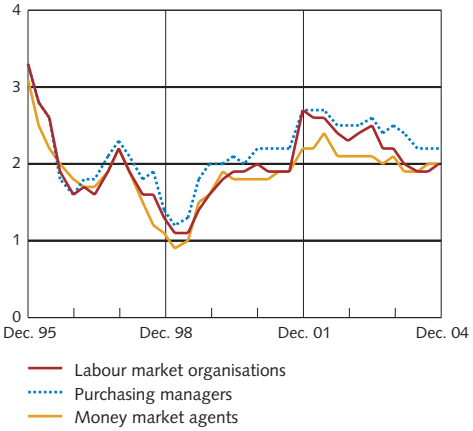
Figure 58. Actual CPI inflation and households' and firms' expectations of inflation one year ahead. Per cent



Note. The curves for inflation expectations have been shifted 12 months ahead to correspond to the expected CPI outcomes. The procedure for surveying households' purchasing plans was changed in January 2002. The horizontal lines at 2, 1 and 3 per cent, respectively, are the Riksbank's target and the tolerance limits for the annual percentage rate of increase in the CPI.

Sources: NIER and Statistics Sweden.

Figure 59. Different agents' expectations of inflation two years ahead. Per cent



Note. The horizontal lines at 2, 1 and 3 per cent, respectively, are the Riksbank's target and the tolerance limits for the annual percentage rate of increase in the CPI.

Source: Prospera.

Table 8. Inflation expectations according to Prospera's survey in November 2004, unless otherwise specified.
Per cent

Expected rate of inflation in 1 year	
Money market agents	1.7 (0.1)
Employer organisations	1.8 (0.2)
Employee organisations	1.8 (0.1)
Purchasing managers. trade	2.0 (0.0)
Purchasing managers. manufacturing	2.2 (0.0)
Households (Consumer Survey) in November (September)	1.6 (-0.4)
Firms (Business Tendency Survey) in October (July)	1.4 (0.1)

Expected rate of inflation in 2 years	
Money market agents	2.0 (0.0)
Employer organisations	2.0 (0.2)
Employee organisations	2.0 (0.1)
Purchasing managers, trade	2.1 (0.0)
Purchasing managers, manufacturing	2.3 (0.0)

Expected rate of inflation in 5 years	
Money market agents	2.0 (0.0)
Employer organisations	2.2 (0.2)
Employee organisations	2.1 (0.0)
Purchasing managers, trade	2.2 (0.0)
Purchasing managers, manufacturing	2.4 (0.1)

Note. The figures in parentheses are the change in percentage points from the previous survey in September 2004, unless otherwise specified.

Sources: NIER and Prospera.

The significance of fiscal policy for monetary policy

This box contains a discussion of how fiscal policy affects the macro economy, inflation and the scope of monetary policy to stabilise inflation. There is an estimate of how the fiscal policy measures announced in the Budget Bill for 2005 will affect inflation and the prospects of achieving the budget policy aims. One conclusion is that these measures will make it difficult to meet the target of a 2 per cent surplus in public finances. Another conclusion is that although the measures in the Budget Bill will contribute to a more expansionary fiscal policy, they will have relatively minor effects on inflation in the short term.

The effects of fiscal policy on the economy and the significance of sustainable public finances

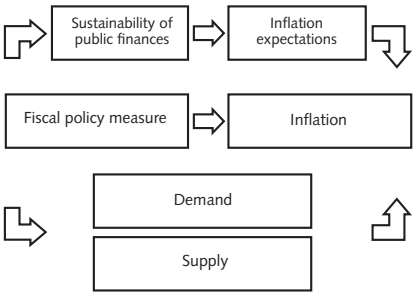
The Riksbank, which has the goal of stabilising inflation at around 2 per cent, considers it essential to constantly monitor fiscal policy effects on inflation, including its effects on supply and demand. It is also important to analyse how fiscal policy can affect monetary policy's scope for stabilising inflation. With regard to the second question, it is essential to determine the significance of public finances being sustainable in the long term (see Diagram B1).

The effects of fiscal policy on the economy

Unlike monetary policy, fiscal policy covers many different instruments. Fiscal policy refers to political decisions that directly affect the public sector's income or expenditure. The public sector's income derives from taxes on work and capital, indirect taxes (such as VAT), charges (for instance, employer contributions) and "other" income (such as income from state-owned companies). The expenditure side consists of public consumption, public investment and transfers to, for instance, households and companies. The purpose behind fiscal policy measures could be to change public consumption, to supply investment, to affect demand via changes in relative prices, to influence employment or the distribution of consumption potential between different households.

Changes in indirect taxes, such as an increase in VAT or electricity tax, in most cases have an immediate effect on the general price level. When calculating the UND1X price index it is assumed that changes in indirect taxes for consumers will be fully passed through to CPI (see the section "Inflation assessment" in this report). In practice, the size of the effect on CPI depends on the companies' profit margins, which in turn depends partly on how demand is affected by changes in prices.

Diagram B1. Fiscal policy's effects on inflation.



A temporary reduction in VAT can redistribute household consumption over time in a manner similar to a reduction in the Riksbank's repo rate, as it makes it more profitable for households to bring forward their consumption. The same applies to a temporary increase in the rate of income tax on capital, which reduces the return on savings in the same way as a reduction in interest rates.[2] Changes in taxation on capital can also affect asset prices and thus the value of household wealth. This in turn affects demand and prices.

A change in taxes on income from employment affects aggregate demand and

2 However, such temporary measures have been rare so far.

thereby has an indirect effect on prices. The impact on demand depends on how much of the change in income tax the household chooses to save.

Public expenditure also affects aggregate demand in the economy. Public consumption and public investment have a direct effect on demand and thereby an indirect effect on price levels. Contributions to households affect demand in a similar way to changes in income tax. However, the effect on demand could be different than a change in income taxes, as contributions are to a greater extent aimed at specific household groups or purposes.

Expectations of the future may also have significance for the effect on the economy of various economic policy measures. If the household believes, for instance, that an income tax reduction made now will instead lead to an increase in the future, it is possible that it will choose to save a relatively large part of the temporary increase in income. In this case, there will only be a limited effect on demand. The effect on demand will also be limited in the case of temporary changes in income tax or subsidies if the household tends to even out its consumption over time.

Many fiscal policy changes that affect demand in the economy will also affect supply and the economy's long-term production capacity. Investments in public infrastructure and expenditure on education and research can increase the economy's production capacity in the longer term. A change in marginal income tax may affect the labour supply as such a measure affects the gain from increasing one's working hours. The total income effect of the tax and subsidy system can also affect the driving forces behind working, particularly in the lower income bracket. Measures regarding taxation of capital affect the driving forces behind investment and thereby capital formation. Changes in employer contributions can affect wage formation and thereby gross wages and companies' wage costs. This can in turn affect demand for labour, labour supply and consumption demand.

Price effects generated from the supply side can be substantial and can also arise relatively quickly. An increase in the employer's contribution, to take one example, could have a considerable impact on prices if gross wages are sticky in the short term.[3]

It is important, when the Riksbank makes inflation forecasts, to assess the effects of fiscal policy on demand and the short-term price effects arising on the supply side. However, the Riksbank must also regard effects on production capacity from a longer perspective. An upturn in potential GDP growth enables a higher growth rate in actual GDP without inflation accelerating.[4]

There are many empirical studies of the effects of various fiscal policy measures on demand. These effects are usually calculated through simulations in econometrically-estimated macro models or calibrated general equilibrium models, as well as through structural VAR models. Some of the models used also take supply effects into account.[5] A survey of the studies indicates that the multiplier for changes in public consumption and taxes usually appears to be around 1 and 0.5 respectively.[6] This means that the effect on GDP of a fiscal policy measure is equivalent to or less than the initial measure. If, for instance, the multiplier of a change in income tax is 0.5, an income tax cut of SEK 20 billion will lead to an increase in GDP of around SEK 10 billion.

Although tax changes appear in general to have a multiplier of around 0.5 (with regard to the effect on GDP), different types of tax changes have very different effects on the CPI and inflation. The results of empirical studies

3 This applies at least in the sector that is not exposed to competition from abroad.
4 See, for instance, Hemming, R., M. Kell, and S. Mahfouz, "The Effectiveness of Fiscal Policy in Stimulating Economic Activity – A Review of the Literature", IMF Working Paper, 2002, WP/02/208, and Capet, S., "The Efficiency of Fiscal Policies: a Survey of the Literature", CEPII, Working Paper, 2004, no. 2004 – 11, for a more detailed discussion of the effects of fiscal policy on the economy.
5 See, for instance, the European Commission's QUEST-model, which was developed to study the effects of fiscal policy measures, Roeger, W. and J. in't Veld, "A Multi Country Business Cycle and Growth Model", mimeo, 1997, European Commission. See also simulations in the European Commission report Public Finances in EMU – 2003.
6 However, the result varies considerably from one study to another. See, for instance, the references in footnote 4.

usually show that changes in indirect taxes are to a great extent passed through to consumer prices in the short term.[7] An increase in employer's contributions usually has a relatively large effect on price levels in the short term, which can be explained by the fact that nominal wages are relatively sticky as a result of the collective wage agreement construction.[8]

This brief survey shows that it is necessary for the Riksbank to assess the effects of changes in public expenditure and income on inflation. Failure to take these effects into account could lead to incorrect conclusions on the driving forces behind inflation. The last section of this box describes how some simple rules of thumb can be used to roughly estimate the size of the effects of the fiscal policy measures announced in the Government's Budget Bill for 2005 on GDP and CPI.

The significance of sustainable public finances

The more direct effects of fiscal policy on GDP and inflation described above are not the only ones important for monetary policy. The long-term sustainability of fiscal policy may also have great importance. This is illustrated very clearly by developments in Sweden during the 1990s. During the 1970s and 1980s public finances weakened more or less on a trend basis. This was because insufficient surpluses were generated during boom years to counterbalance the deficits arising during recession years. The problems in the general government budget became acute following the deep recession at the beginning of the 1990s. There were discussions in the financial markets of a risk, albeit a small risk, that a return to higher inflation would appear the most politically attractive route to improved public finances. Higher inflation would reduce the real value of the outstanding central government debt, increase seigniorage, that is, the income the government receives from printing money, reduce expenditure through the incomplete indexing of important transfers and increase income from nominalistic elements in the tax system.[9] One consequence of such a strategy would have been that the inflation target, which had recently been introduced, would have had to be abandoned almost immediately. The uncertainty over public finances probably contributed substantially to the initial difficulties in building up confidence in the low-inflation policy. Inflation expectations were for a long time significantly higher than 2 per cent.

An extensive budget consolidation programme was initialised, a stricter budget process was introduced and a number of budget policy targets and restrictions (described in the next section) were adopted along the way to ensure long-term stability in public finances. In the mid-1990s it became clear that the consolidation work would succeed.[10] Market interest rates and inflation expectations fell and the krona strengthened. The increased confidence in economic policy and the reduced fears of a return to higher inflation enabled a much more expansionary policy. The Swedish experiences provide a good illustration of how fiscal policy developments not considered to be sustainable in the long term can make it difficult for the central bank to control inflation and inflation expectations and how sound public finances are an important condition for successfully conducting monetary policy.[11]

The degree of discipline in fiscal policy

7 See, for instance, Henry, J., P. Hernández de Cos and S., Momigliano, "The Short-term Impact of Government Budgets on Prices – Evidence from MacroEconometric Models, ECB Working Paper Series, 2004, no. 396.

8 See, for instance, the reference in footnote 7. However, the standard result is that a change in payroll tax in the long term is largely passed through to gross wages, whereby the effect on price levels diminishes.

9 See also Persson, M., T. Persson and L. Svensson, "Kan man inflatera bort budgetunderskottet?" (Can the budget deficit be inflated away?), in Ekonomisk politik – En vänbok till Assar Lindbeck, SNS Förlag, 1995. It is shown that the largest public finance gains would arise through the two latter mechanisms.

10 See, for instance, the section on the consolidation of public finances in Bäckström, U., "1990-talets väg till prisstabilitet" (the 1990s route to price stability) in Jonung, L., (ed.), På jakt efter ett nytt ankare (Hunting for a new anchor), SNS Förlag, 2003.

11 There have also been many studies in theoretical research of the importance of fiscal policy for monetary policy to carry out its tasks. One central reference is Sargent, T.J. and N. Wallace, "Some Unpleasant Monetary Arithmetic", Federal Reserve Bank of Minneapolis, Quarterly Review, vol. 5, no. 3, 1981, 1-17. A new theory called "the fiscal theory of the price level" has also been developed recently, which even indicates that prices are determined under certain circumstances by fiscal policy rather than monetary policy; see Christiano, L.J. and T.J. Fitzgerald, "Understanding the Fiscal Theory of the Price Level", Federal Reserve Bank of Cleveland, Economic Review, vol.36, no. 2, 2000, 1-38, for a description.

can affect the conditions for monetary policy in other ways than the confidence effects discussed above. It can have implications for the average tightness of monetary policy required over time and also affect the size of the cyclical fluctuations that monetary policy attempts to alleviate. These aspects are discussed below.

One consequence of fiscal policy that is expansionary on average is that monetary policy must on average be relatively tight, in order to keep demand in the economy in balance. This type of policy mix can be unprofitable to society over time, as it will lead to higher real interest rates than would otherwise have been the case. This in turn has a negative effect on capital formation and thereby on growth in the economy. [12]

Inadequate fiscal policy discipline that takes expression in surpluses generated in boom years being insufficiently large to balance the deficits arising in recession years can also lead to a heavier stabilisation policy burden for monetary policy. When savings in the public finances are finally enforced, there is a great risk that this will be done during a severe recession, as problems in public finances tend to be particularly acute at these times. The savings contribute to further reinforcing the economic downturn. If fiscal policy is insufficiently tight during economic upturns and overly tight in downturns, there is a risk that it will lead to unnecessarily large economic fluctuations. The consequence of this will be that monetary policy must take a more active role than would otherwise be necessary in order to keep demand and inflation in balance.

It may be worth pointing out that a stabilisation policy which functions in this manner can result in major problems during extreme situations. Let us assume that a severe economic downturn occurs, which makes problems in public finances acute and forces savings to be made, which in turn reinforces the downturn. This may require extensive monetary policy stimulation to keep the economy in balance. However, there is a limit for using the interest rate weapon, as the instrumental rate cannot be lowered below zero per cent. In some situations, this may be insufficient for providing impetus to the economy. The enforced tighter fiscal policy and the limitations in monetary policy's ability to stimulate the economy could then result in a prolonged recession.

The current fiscal policy stance

Budget policy target fulfilment

The Riksbank has often emphasised the significance of the changeover in fiscal policy during the 1990s in enabling monetary policy to meet the inflation target. The consolidation programme in the mid-1990s, the changeover in the budget process and the introduction of clear budget policy targets and frameworks has contributed to the significant improvement in public finances since the early 1990s. However, there is reason for regular assessment of the budget policy targets and regulations introduced to ensure long-term sustainability in public finances. This section contains an assessment of this.

Fiscal policy is currently covered by three important restrictions; the expenditure ceiling, the surplus target and the local government balance requirement. The expenditure ceiling, which covers the central government budget and the old age pension system, was introduced in 1997 and is primarily aimed at avoiding temporary increases in income being used for permanent increases in expenditure. Another purpose is to guarantee savings measures in cases where central government expenditure may for some reason risk exceeding the ceiling. This prevents central government expenditure from increasing in an uncontrolled manner over time.

The surplus target, which was introduced in its current form in 2000, states that net lending for the consolidated public sector should amount to 2 per cent on average over an economic cycle. One purpose of this target

12 See, for instance, Blinder, A.S., "Commentary: Should the European Central Bank and the Federal Reserve Be Concerned about Fiscal Policy?", in Budget Deficits and Debts: Issue and Options, A Symposium Sponsored by the Federal Reserve Bank of Kansas City, 1995.

is that is shall generate positive public savings over a number of years to come, which will be used to amortise the central government debt at a rapid rate. The reason for this is that the central government debt is thereafter expected to increase markedly in line with the negative effects of demographic developments on public income and expenditure. Another purpose is to provide scope for stabilisation policy measures in a recession, which would guarantee that the deficit in public finances would not exceed the limit of 3 per cent of GDP stated in the EC Treaty after these measures have been taken. [13]

The local government balance requirement aims to provide support to the surplus target for the entire public sector. If a deficit arises in a municipality's results during an individual year, the municipality shall restore the capital balance within two years.

Table B1 shows that actual expenditure has remained below the expenditure ceiling every year since its introduction in 1997. The Riksbank's forecasts indicate that actual expenditure will coincide with the expenditure ceiling in 2005 and 2006. There is thus no budget margin or buffer for unforeseen events. The Riksbank has pointed out on several previous occasions that even if the expenditure ceiling has been respected so far, the system has not been applied in full in accordance with the intentions of the budget act. In the long run, there is a risk that this will undermine the purpose of the expenditure ceiling. [14]

Table B2 shows the Riksbank's forecast for the public sector financial balance, broken down into sub-sectors, and public sector debt as defined in the Treaty of Maastricht. The forecasts include the reforms the government intends to implement over the coming years. The calculation also assumes that the government will implement the final stage of the income tax reform in 2006. This aims to compensate tax-payers for their personal contributions to the pension system. It corresponds to an income tax reduction amounting to SEK 6.5 billion. According to the forecast, the total public balance will be slightly positive over the coming three years. This, together with strong economic growth, will contribute to the "Maastricht debt" falling from 52 to 48 per cent of GDP between 2003 and 2006.

Table B2. Net lending total and in different sectors, plus Maastricht debt.
Per cent of GDP

	2003	2004	2005	2006
Old-age pension system	2.0	2.0	2.0	2.0
Local government sector	-0.3	0.1	0.0	0.1
Central government	-1.5	-1.2	-1.5	-1.7
Public sector	0.3	0.8	0.6	0.4
Maastricht debt	52.0	51.1	49.5	48.2

Sources: Statistics Sweden and the Riksbank.

The entire public savings are at present, and will remain over the coming years, in the old-age pension system. The large deficit in the central government finances is expected to remain during the entire forecast period, despite the expectation that the average GDP growth rate over the coming years will be much higher than potential rate.

The surplus target is met if the actual financial balance amounts to 2 per cent on average over an economic cycle. When assessing target fulfilment in the future, forecasts are rarely made across a well-defined economic cycle. This means that other methods must be used to obtain an assessment of future

Table B1. Expenditure ceiling for the central government.
SEK billion

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Expenditure ceiling	723	720	753	765	791	812	822	856	870	907
Expenditure subject to ceiling	698	718	752	760	786	812	819	856	870	907
Budget margin	25	2	1	5	5	0	3	0	0	0

Note. Expenditure ceiling measured excluding technical adjustments.

Sources: The National Institute of Economic Research and the Riksbank.

13 See also footnote 16.
14 See, for instance, the box "Fiscal policy – 1990s, now and in the future" in Inflation Report 2003:4 for a more detailed account.

target fulfilment. The estimated structural balance is usually used as an indicator of target fulfilment. This indicates the size of the actual net lending with normal resource utilisation, i.e. the calculation is based on an estimate of the economic situation and its effects on savings. The structural balance is assumed to reflect the average net lending over the economic cycle, if fiscal policy remains otherwise unchanged (i.e. as long as no new measures are introduced).

Table B3. Structural balance in the public sector, 2003-2006 estimated using four different methods. Per cent of GDP

	2003	2004	2005	2006
Indicator-based method	1.4	1.4	0.6	-0.5
UC method	0.4	1.1	0.5	-0.4
HP method	1.0	0.5	0.3	0.0
ESCB's method	0.6	1.5	1.0	0.5
Average	0.9	1.1	0.6	-0.1

Note. The results of the ESCB's method are based on the forecast in Inflation Report 2004:3. Since then the forecasts for the relevant variables have changed and Statistics Sweden has adjusted the outcome for 2001-2003. However, the adjustments are relatively minor, so the result from using this method is assessed to be comparable with the other methods.

Sources: Statistics Sweden and the Riksbank.

Table B3 shows the Riksbank's calculations of the structural balance for the years 2003 to 2006. As any estimate of the structural balance is very uncertain, four different methods have been used.[15] The results vary to a relative degree from one method to another. This is largely because the methods measure resource utilisation in different ways. Nevertheless, all of the methods indicate that the structural balance is too low in relation to the surplus target and that it will decline during the forecast period. Based on these calculations, the government would need to take measures to reinforce the budget next year to the tune of SEK 27-46 billion if the surplus target is to be attained. Even greater savings are required for 2006.

The deficit in the municipalities' total budget was just over SEK 7 billion in 2002 and SEK 1 billion in 2003. With effect from this year, the municipalities' total budget is expected to show a small surplus. This is largely due to the local government tax increases averaging 0.65 percentage points in 2003 and 0.34 in 2004, combined with stronger economic activity that will lead to higher income. Increased subsidies from the central government also contribute to the surplus to some extent, although most of this contribution is expected to be used for increased local government consumption. The balance requirement assessed in terms of the expected accumulated deficit is not expected to be met during the forecast period (see Table B4).

Table B4. Local government finances. SEK billion

	2003	2004	2005	2006
Net lending	-6.1	2.4	1.0	3.3
Budget balance	-1.0	1.7	0.2	5.3
Accumulated deficit since 2002	-8.0	-6.3	-6.1	-0.8

Source: The Riksbank.

To summarise, the introduction of clear budget policy targets and the changeover of the budget process in the mid-1990s have contributed to more stable public finances. This has, as noted above, been an important condition for successful inflation-targeting. The national institutional changes have also contributed to Sweden fulfilling the criteria in the EC Treaty and the Stability and Growth Pact for public finances.[16] However, there are some worrying tendencies. One is that the expenditure ceiling has not been applied in full according to the intentions of the budget act. Another is that the central government's net lending is probably lower than what is required to meet the surplus of 2 per cent over an economic cycle. Although the conclusion is that the overall purpose of the surplus target and expenditure ceiling have largely been met, these tendencies entail a risk that the budget policy targets will not be met in future. This could in the long run make it more difficult to manage strains in public finances resulting from demographic developments.

15 A detailed description of these methods and how they differ can be found in Boije, R., "The general government structural balance", Sveriges Riksbank Economic Review, 2004 no. 1.

16 According to the convergence criteria in the EC Treaty, public debt as defined in Maastricht should not exceed 60 per cent of GDP and the deficit in public finances may not be greater than 3 per cent of GDP under normal circumstances. The provisions of the Stability and Growth Pact state that all member states shall strive to obtain a balance or surplus in their public finances regarded on average over the economic cycle.

An estimate of the effects on GDP and inflation of the measures in the Budget Bill for 2005

As observed in the introduction, fiscal policy affects demand, supply and prices through many different, complex channels. This, together with the varying results of empirical studies means that it is difficult to assess with any great precision the effects of fiscal policy measures on different macro economic variables. Nevertheless, it is necessary for the Riksbank to estimate what effects fiscal policy will have on central variables such as GDP and inflation. The following section estimates the effect on GDP and inflation during the period 2004-2006 of the measures announced by the government in the Budget Bill for 2005, based on an assumption of the size of the multipliers and by using a simple rule of thumb for how inflation is affected by a change in the production gap. The assumptions made are well in line with the average results in empirical studies. The calculations should be regarded primarily as numerical examples. There are many additional aspects, which depending on the circumstances, may also need to be taken into account. However, the calculations can give some indication of the size of the effect on GDP and inflation.

The multipliers are assumed to be 1 for public consumption and 0.5 for tax measures and subsidies to households. In accordance with the calculations for the UND1X price index, changed indirect taxes are assumed to be fully passed through to prices in the first stage. These tax changes also affect prices through the effect on demand (GDP). If, for instance, prices are raised initially as a result of a tax increase, demand usually declines, albeit with some delay. This demand effect in turn influences prices and inflation. As a rough rule of thumb, it is assumed that an increase (decrease) in the production gap of 1 percentage point in a certain year will increase (decrease) inflation by 0.3 percentage points in the following year. In addition, it is assumed that potential GDP is not affected by the fiscal policy measures in the short term.

The calculations are also based on the assumption that the government, in addition to the measures announced in the Budget Bill for 2005, will implement the final stage of the income tax reform during the election year 2006, which is aimed at compensating tax-payers for their personal contributions to the pension system.[17] In addition, the budget-neutral green tax swap is expected to continue until the end of 2006 with the same direction as before.[18] In total, the reforms in the Budget Bill and the measures the Riksbank expects will be taken are estimated to weaken public finances between the years by an amount equivalent to 0.1 per cent of GDP in 2004, 0.6 per cent of GDP in 2005 and 0.5 per cent of GDP in 2006. This corresponds to an accumulated weakening of public finances by 1.2 per cent of GDP between 2004 and 2006.

Under these conditions, it is estimated that the fiscal policy measures expected and announced in the Budget Bill will increase growth in demand by 0.1 percentage points in 2004, 0.5 percentage points in 2005 and 0.2 percentage points in 2006. The measures are thus expected to contribute to an increase in the GDP gap of 0.1 percentage points in 2004, 0.6 percentage points in 2005 and 0.8 percentage points in 2006 (see Table B5).

The effect on UND1X, which can be regarded as describing the effect on inflation as a result of fiscal policy's expansionary effects on demand over the coming two years, is expected to amount to approximately 0.2 percentage points in 2006. The effects on CPI, which are

17 The larger reforms the Government has announced include increased central government subsidies to local governments, which are expected to be used to a large extent for local government consumption, increased child benefit and an increased ceiling for parental insurance, reduced income tax as a result of the green tax swap, higher effective company tax rate as a result of the introduction of interest on profits allocated to periodisation funds, reduction of wealth tax and abolition of inheritance and gift taxes. For a complete survey, see Chapter 4 in the Budget Bill for 2005.

18 "Energy taxes" are expected to be increased by SEK 3.7 billion, while tax on income from employment is expected to be cut by the same amount. Increased allocations for foreign aid are not expected to affect GDP, although they will to some extent have counterpurchase requirements. The reductions in wealth tax, inheritance tax and gift tax are primarily expected to affect wealth and not disposable income (in accordance with the way these taxes are recorded in the National Accounts).

much greater as a result of the direct impact on prices of the green tax swap, are expected to amount to 0.2 percentage points in 2004 and 2005 and to 0.4 percentage points in 2006.

Table B5. The effects of fiscal policy on GDP and inflation.
Percentage points

	2004	2005	2006
Effect on demand	0.1	0.5	0.2
Accumulated effect on GDP gap	0.1	0.6	0.8
Direct effect of changes in indirect taxes	0.2	0.2	0.2
Indirect effect via GDP gap	0.0	0.0	0.2
Total effect on CPI	0.2	0.2	0.4
Total effect on UND1X[1]	0.0	0.0	0.2

1) Coincides with the indirect effect via the change in the GDP gap.
Source: The Riksbank.

These calculations have, as noted above, been based on the assumption that potential GDP is not affected by the fiscal policy measures. It is possible that the lower income tax may have a positive effect on both the labour supply and potential GDP. However, the increased subsidies to households may have a negative effect on the labour supply and potential GDP. The increase in the effective company tax rate could subdue investment demand, which could reduce capital formation and thereby potential GDP.

In conclusion, it should also be mentioned that these calculations cannot be used on their own as a base for the monetary policy stance over the coming years. Firstly, the purpose of this exercise has been solely to make a rough study of how the discretionary measures in the most recent Budget Bill would affect GDP and inflation.[19] Measures notified earlier and effects of automatic stabilisers that may also affect inflation have not been included in these calculations.[20] Secondly, fiscal policy changes are only one factor among many that need to be assessed when preparing monetary policy decisions. It is the total inflation forecast and not the estimated effect on inflation of individual factors that is used as a basis for the monetary policy stance.

19 It should be noted that these effects were taken into account in the previous Inflation Report.
20 In Sweden, relatively high taxes are levied on consumption and income, and transfers are largely based on the principle of loss of income, e.g. unemployment assistance. The tax and contribution system automatically contributes in this way to bolstering demand during economic declines while the opposite applies during booms. This is why it is termed an "automatic stabiliser".

Recent developments in inflation

Since the previous Inflation Report both UND1X and CPI inflation have been marginally higher than expected. In October, UND1X inflation stood at 1.3 per cent and CPI inflation at 0.8 per cent, compared with the forecasts of 1.1 per cent and 0.7 per cent, respectively. The deviation is essentially attributable to the unexpectedly high oil price.

Continued low domestic inflation but rising imported inflation

Inflation has picked up somewhat since the beginning of the year, due in some measure to the rise in the oil price (see Figure B2). The inflation rate is still low, however. In October, UND1X inflation was 1.3 per cent and CPI inflation was 0.8 per cent.

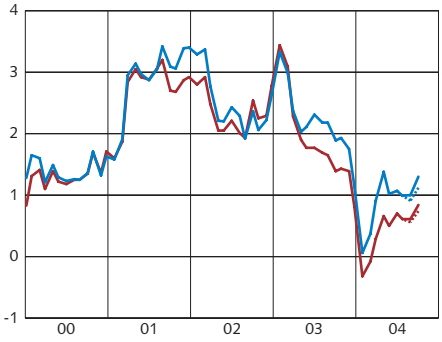
Domestic inflationary pressures have remained weak, and were on the wane during a large part of 2004 (see Figure B3). The rate of domestic price increases has been held back because — despite GDP growth of just over 3 per cent during the first half of this year — there are still idle resources in the economy. High productivity growth has also resulted in low cost increases for firms. Imported inflation has increased from a low level during the autumn, mainly as a result of the continued rise in the oil price. In October, consumer price inflation for oil products stood at 12 per cent. This provided a contribution of 0.6 percentage points to the underlying inflation rate.

Somewhat higher inflation than expected

Inflation has risen somewhat more than forecast in October. Domestic inflation and imported inflation excluding oil products have largely developed in line with the previous assessment. The oil price has risen more than anticipated, however. Consequently, imported inflation including oil products has increased somewhat sharper than expected.

Looking back over a slightly longer period, domestic inflation has also developed roughly as expected; compared with the assessment at the beginning of 2004 price increases for domestically produced consumer goods were higher during the spring and summer. Domestic inflation has been low even though GDP growth so far this year has been more vigorous than forecast at the beginning of the year. At the same time, though, productivity growth has also been more robust than expected, prompting a downward revision of the forecast for firms' costs. The unexpectedly high GDP growth has therefore not caused inflationary pressures to

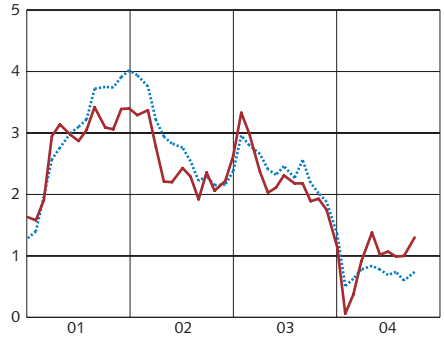
Figure B1. UND1X and CPI: forecasts in previous Inflation Report and outcomes.
Annual percentage change



Note. The broken lines represent the Riksbank's forecasts in the previous Inflation Report.

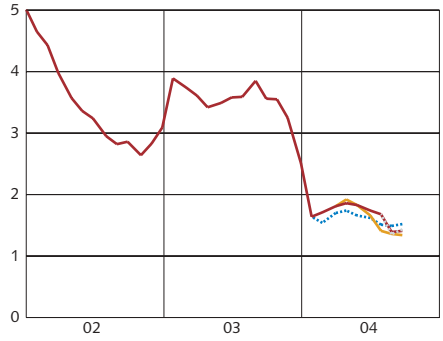
Sources: Statistics Sweden and the Riksbank.

Figure B2. UND1X and UND1X excluding oil products.
Annual percentage change



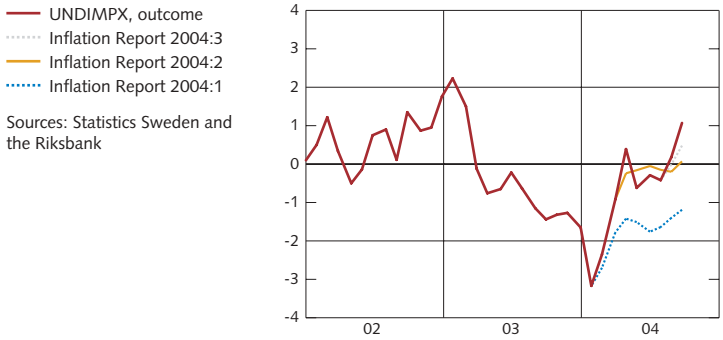
Sources: Statistics Sweden and the Riksbank.

Figure B3. UNDINHX: forecasts in previous Inflation Reports and outcome.
Annual percentage change



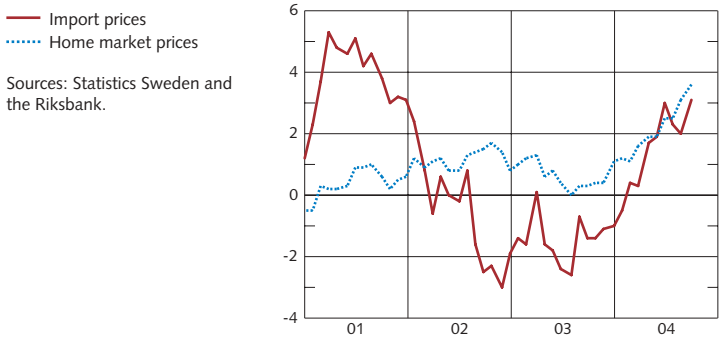
Sources: Statistics Sweden and the Riksbank.

Figure B4. UNDIMPX: forecasts in previous Inflation Reports and outcome.
Annual percentage change



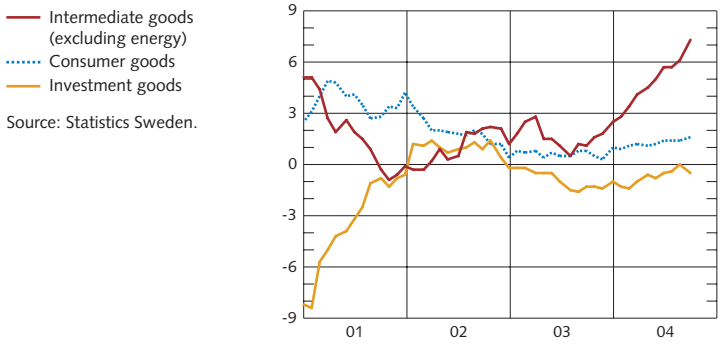
Sources: Statistics Sweden and the Riksbank

Figure B5. Producer prices: imports and the home market.
Annual percentage change



Sources: Statistics Sweden and the Riksbank.

Figure B6. Producer prices for the Swedish home market: different groups of goods.
Annual percentage change



Source: Statistics Sweden.

mount to the same extent. Imported inflation, however, has risen faster than anticipated in early 2004. The unexpected, sharp increase in oil prices has been the key contributory factor in this longer-term perspective as well.

Higher Swedish producer price inflation

Swedish producer prices – both for imported goods and for goods produced for the Swedish market – have, like global prices, increased in the past year. The quickening rate of increase for import prices is largely a direct result of the rising price inflation in the world market.

The rate of price increases for domestically produced goods for the Swedish market (the home market) has risen for the past year or so (see Figure B5). Prices of intermediate goods in particular have risen comparatively sharply (see Figure B6). Prices of investment goods have been unchanged in the past year, which in all likelihood partly reflects the currently weak investment demand.

Producer price inflation for consumer goods has also been subdued. Price developments for food have been especially weak. Excluding these, consumer goods prices have risen at roughly the same pace as intermediate goods (see Figure B7), i.e. by over 5 per cent in the past year. Tougher competition in the Swedish food market in recent years has probably contributed to the low producer price inflation for food, but also to the low increases in consumer prices.

However, the high rate of producer price inflation for the category "other consumer goods" has fed through very little to consumer prices (see Figure B8). There are several possible reasons that developments in producer prices of consumer goods for the home market deviate from the developments in consumer prices. One is that the composition of goods and the goods' respective weights differ between the producer price index and the consumer price index. Another is that the profit margins of retailers vary over time. The fact that consumer price inflation for goods has not risen to the same

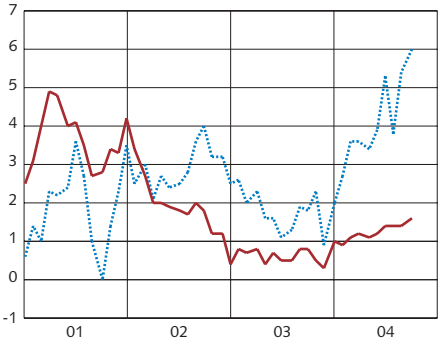
extent as producer prices of consumer goods in the past year might indicate that retailers have decided to cut their profit margins. It might also point to higher productivity in the retail sector.

Figure B8 shows that low increases in goods prices have contributed to the low domestic inflation in the past year. Price inflation for services has continued to outpace the total domestic inflation rate.

Slight rise in underlying inflation

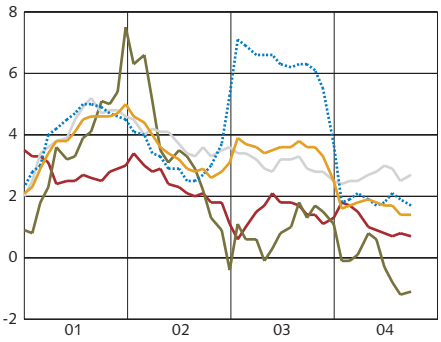
In order to analyse developments in inflation excluding various temporary effects, the Riksbank studies different measures of underlying inflation. Underlying inflation is not an unambiguously defined concept, though, and can accordingly be measured in different ways. One common method for distinguishing the trend, or cyclical, component of inflation is to exclude from the CPI some components that are deemed to be temporary in nature or that are a direct effect of economic policy decisions. UND1X is arrived at by excluding from the CPI households' mortgage interest expenditure and the direct effects of changes in indirect taxes and subsidies. Another way of measuring underlying inflation is to use statistical methods to exclude or lessen the significance of groups of goods and services whose prices have previously exhibited sharp fluctuations. Figure B9 shows different measures of underlying inflation. There has been a slight rise in the underlying inflation rate during the autumn. However, the level of underlying inflation is still low for all measures.

Figure B7. Producer prices for consumer goods in the home market.
Annual percentage change



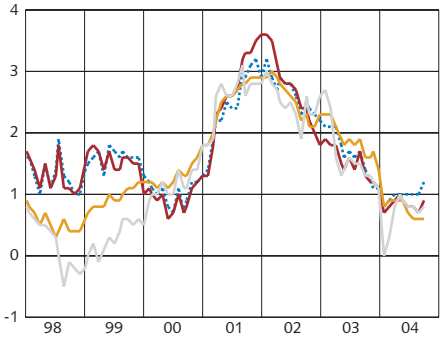
Sources: Statistics Sweden and the Riksbank.

Figure B8. UNDINHX: total and different subgroups.
Annual percentage change



Sources: Statistics Sweden and the Riksbank.

Figure B9. Different measures of underlying inflation.
Annual percentage change



Note: The alternative measures are calculated on the basis of the CPI divided into approximately 70 different subgroups. UND24 is weighted together using weights adjusted for the historical standard deviation for the deviation between the annual rate of increase in the total CPI and the respective subgroup over the past 24 months. In trim85 the 7.5 per cent most positive and negative yearly price changes each month have been excluded.

Sources: Statistics Sweden and the Riksbank.

Inflation assessment

Inflation has remained low during the autumn. Inflation is expected to increase gradually over the coming two years. Slower productivity growth and greater demand are expected to lead to an increase in domestic inflation. Imported inflation is expected to increase one year ahead as a result of high oil prices, but it is assumed the direct effects will be counteracted by a stronger exchange rate. The forecast for inflation now is largely the same as that in the October Inflation Report. There are two changes that balance one another in the assessment of developments in domestic inflation; on the one hand a slightly weaker real growth in 2005 that will subdue domestic inflationary pressure in relation to earlier forecasts with some time lag, and on the other hand the forecast horizon moves forward one quarter and the assessment therefore covers a later stage in the economic cycle. Two years ahead, UND1X inflation is expected to be around 2 per cent.

Inflation prospects in the main scenario

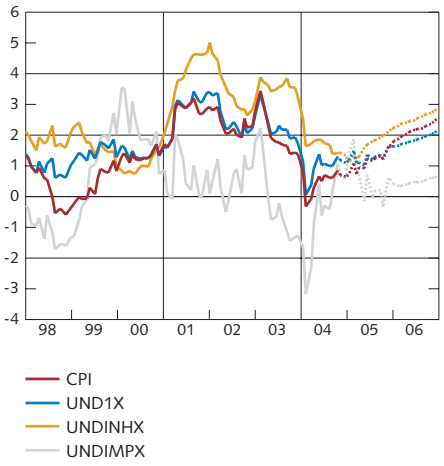
■■ Increased resource utilisation and falling productivity growth lead to rising domestic inflation.

Prices of domestically-produced consumer goods have continued to increase at a slow rate. In October, the underlying domestic inflation rate was 1.4 per cent, measured as the change in the UNDINHX price index. Strong productivity growth and relatively moderate wage increases have resulted in low domestic cost pressure. Continued unused production capacity in many sectors of the economy should also have contributed to low domestic inflation (see Figure 61).

In the short term, the importance of demand for inflation trends is sometimes partly obscured by price changes that occur for other reasons, for instance, due to supply shocks on individual markets or as a result of administrative decisions. Figure 62 also shows domestic inflation adjusted for certain price groups, which can at least partly be expected to be affected by other factors than demand, such as electricity prices, rents and administratively-set service prices. It appears that the rate of price increase on these adjusted measures has been slightly lower recently.

Domestic inflation is expected to fall slightly further over the coming months. This is partly due to the currently low cost pressure and partly due to a forecast for lower electricity prices over the coming months than during the same period last year. At the beginning of 2005, domestic inflation is expected to rise gradually as resource utilisation increases and cost pressure rises. The rate of increase in unit labour costs is expected to rise, mainly due to slackening in productivity growth. Cost increases in firms will also be higher as a result of the expected rise in the rate of wage increase over the coming two years.

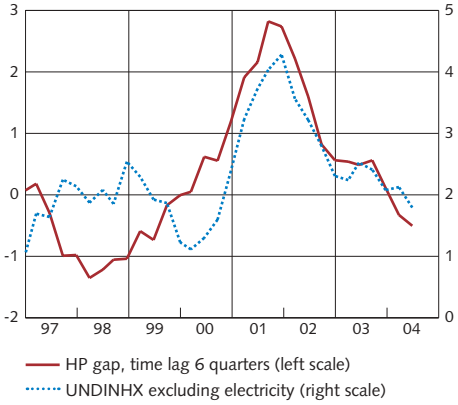
Figure 60. Different measures of inflation: outcomes and forecasts in the main scenario. Annual percentage change



Note. The broken line represents the Riksbank's forecast.

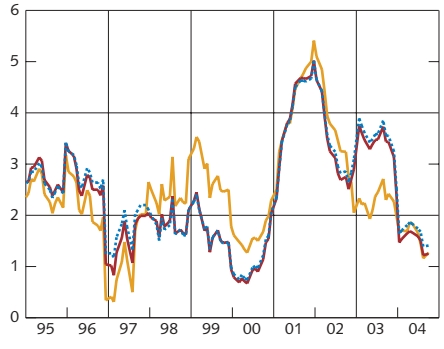
Sources: Statistics Sweden and the Riksbank

Figure 61. UNDINHX excluding electricity and estimated production gap (HP method). Annual percentage change and per cent of potential GDP



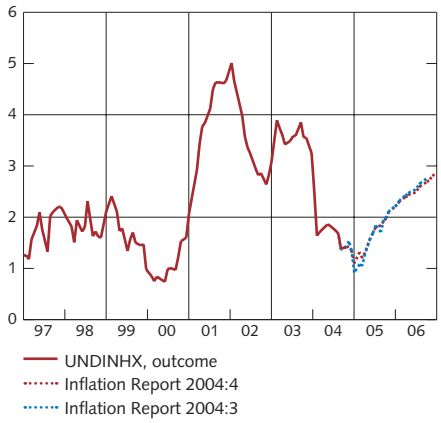
Sources: Statistics Sweden and the Riksbank.

Figure 62. UNDINHX, UNDINHX excluding administratively-set service prices and UNDINHX excluding electricity prices and rents. Annual percentage change



Sources: Statistics Sweden and the Riksbank.

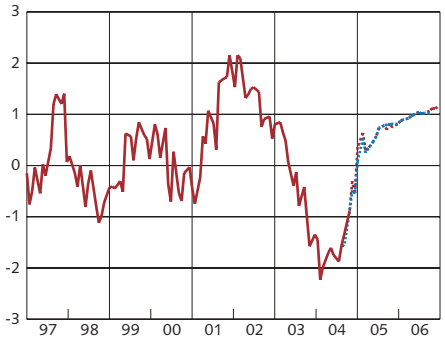
Figure 63. UNDINHX: outcome and forecasts in the main scenario. Annual percentage change



Note. The broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Figure 64. UNDIMPX excluding oil products: outcome and forecasts in the main scenario. Annual percentage change



Note. The broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

The unutilised resources in the economy are now expected to be employed at a slightly slower rate than was assumed in the October report, and unit labour costs are expected to rise at a marginally lower rate. This will affect inflationary pressure with some time lag and is expected to lead to a slower increase in domestic inflation during 2006. However, the forecast now stretches slightly further into the economic upturn, which brings up inflation two years ahead (see Figure 63).

■■ Low but rising rate of price increase on imported consumer goods, excluding oil.

During the autumn, falling prices on imported consumer goods, excluding oil, have continued to contribute to holding down inflation. Prices on imported goods and services excluding oil had fallen by almost 1 per cent in October, compared with the previous year. This price fall was partly due to low price increases on manufactured products on the international market in recent years. Increased global competitive pressure, for example, increased competition from low-wage countries, is probably one important explanation for this development. In addition, the krona is valued higher now than it was a few years ago, which should also have enabled Swedish importers to keep down the rate of price increase.

Nevertheless, the rate of increase on international producer prices has risen relatively fast over the past year, from 0.1 per cent in September 2003 to 3.5 per cent in September 2004. Higher resource utilisation in large parts of the world and higher production costs through large price increases on oil, metals and other commodities have contributed to the rise in the rate of price increase. Over the coming year, the rate of increase in international prices for manufactured products is expected to rise further, although the tougher global competition is expected to continue to have a restraining effect.

The size of the impact of international price changes on Swedish import prices will depend partly on exchange rate developments. The strengthening of the TCW-weighted exchange should reduce to some extent the impact of higher international inflation on Swedish prices. However, rising unit labour costs for import companies lead to increased price pressure from the cost side. A further factor to take into account in the forecast for imported inflation is that the EU's import quotes for clothing are abolished with effect from January 2005. This is expected to lead to increase price pressure on clothing, as the competition from China and other countries with low production costs will increase. The total assessment is, however, that the rate of price increase on imported consumer goods excluding oil will rise gradually from an initially low level over the coming two years (see Figure 64).

■■ Continued high rate of price increase for oil and petrol.

Compared with one year ago, oil prices in USD have risen by around 50 per cent. During the same period, the dollar has weakened against

the Swedish krona. However, this weakening has been much lower than the price rise (10 per cent in November), which means that it has only been able to slightly counteract the impact on oil prices in krona. High oil prices are expected to lead to continued high rates of increase in consumer prices for fuel oils and petrol in the near future (see Figure 65). However, the effect of the higher oil prices will be largely counteracted by the assessment that the dollar will be weaker during the forecast period. All in all, total imported inflation – i.e. including oil products – is expected to rise to almost 2 per cent at the beginning of 2005 and then to fall back slightly (see Figure 66).

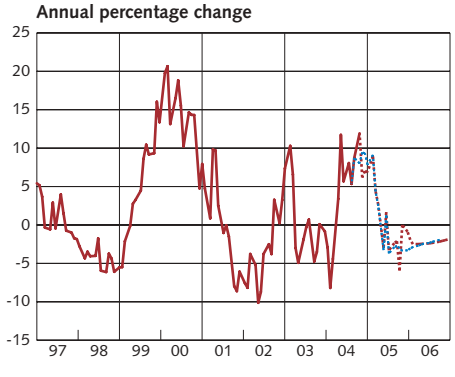
■■ Inflation forecast in the longer term unchanged, compared with the previous inflation report.

To summarise, the view of domestic and imported inflation remains largely the same as that in the October Inflation Report. In the main scenario, UND1X inflation is expected to be 1.6 per cent one year ahead and 2.1 per cent two years ahead (see Table 9). The corresponding figures for CPI inflation are 1.7 and 2.5 per cent, respectively.

Statistics Sweden's new methods of calculating CPI will be applied from January 2005. The method changes concern both the way the actual index is constructed and how the inflation rate is calculated on the basis of the index[21]. According to Statistics Sweden's own calculations, the method changes will entail the inflation rate being on average approximately 0.2 percentage points lower than when the present methods of calculation are used. In May, as a direct result of these method changes, the Riksbank made a downward adjustment of 0.2 percentage points in its inflation forecasts with effect from January 2005. This assessment remains, that is to say, the inflation forecast in the main scenario of this report is 0.2 percentage points lower than it would have been if Statistics Sweden had not introduced the method change.

With regard to the allocation between imported and domestic inflation, the Riksbank chose to also revise down the forecasts for these two measures by 0.2 percentage points. However, other calculations showed that the effects could be slightly greater on imported inflation than on domestic inflation. The allocation between domestic and imported inflation has no monetary policy consequences, but there may be reason to return to this question in coming reports, as new results are published.

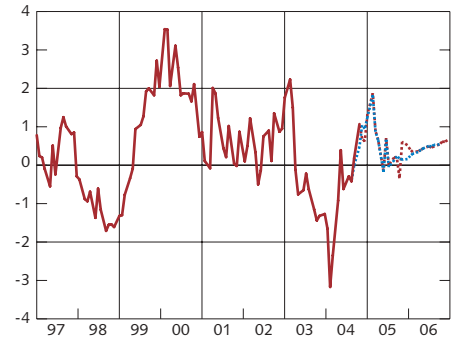
Figure 65. Oil prices in CPI: outcome and forecasts in the main scenario.
Annual percentage change



Note. The broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

Figure 66. UNDIMPX: outcome and forecasts in the main scenario.
Annual percentage change



Note. The broken line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank.

21 See the box "Changes in the methods for calculating the inflation rate" in Inflation Report 2004:2.

Table 9. Inflation forecast in the main scenario. Annual percentage change

	Annual averages			12-month rates		
	2004	2005	2006	Dec. 04	Dec. 05	Dec. 06
CPI	0.5 (0.5)	1.2 (1.3)	2.2	0.7 (0.9)	1.7 (1.8)	2.5
UND1X	1.0 (1.0)	1.3 (1.2)	1.9	1.1 (1.2)	1.6 (1.5)	2.1
UNDINHX	1.7 (1.7)	1.7 (1.6)	2.5	1.3 (1.4)	2.2 (2.2)	2.8
UNDIMPX	-0.5 (-0.5)	0.5 (0.5)	0.5	0.6 (1.0)	0.5 (0.2)	0.7

Note. The figures in parentheses are the forecasts in the October Inflation Report. UND1X is CPI inflation excluding household mortgage interest expenditure and the effects of changes in indirect taxes and subsidies. UNDINHX refers only to prices of mainly domestically produced goods and services in UND1X. UNDIMPX refers to prices of mainly imported goods and services in UND1X.

Sources: Statistics Sweden and the Riksbank.

■■ Household mortgage interest expenditure affects CPI inflation.

CPI inflation has been lower than UND1X inflation since 2003. This has been mainly due to the low interest rates, which have meant that the interest expenditure in CPI has reduced the inflation rate according to this measure, in relation to UND1X inflation. This relationship is expected to continue in the short term. The effect will peter out gradually, however. In 2005, there will be a reversal, with rising interest expenditure for households, according to the forecast for rising long-term interest rates. Thus, towards the end of the forecast period, CPI inflation is instead expected to exceed UND1X inflation by nearly 0.5 percentage points. In addition, CPI inflation is expected, as before, to increase slightly in relation to UND1X inflation over the coming years as a result of higher indirect taxes, particularly higher energy taxes within the scope of the green tax swap. On average over the forecast period, however, the difference between the two inflation measures is small. Lower long-term interest rates during the forecast period will provide slightly lower CPI inflation than assumed in the October assessment.

Table 10. Change in the CPI compared with UND1X. Annual percentage change and percentage points

	Dec. 04	Dec. 05	Dec. 06
UND1X	1.1 (1.2)	1.6 (1.5)	2.1
+ Effects of changes in mortgage interest expenditure	-0.6 (-0.6)	0.0 (0.1)	0.2
+ Effects of changes in indirect taxes and subsidies	0.1 (0.2)	0.1 (0.2)	0.2
=CPI	0.7 (0.9)	1.7 (1.8)	2.5

Note. The figures in parentheses are the forecasts in the October Inflation Report.

Source: The Riksbank.

The balance of risks

The main scenario describes what the Riksbank assesses to be the most likely path for Swedish inflation provided that the repo rate remains unchanged at the current level. The forecast is uncertain, however. When formulating monetary policy, therefore, the Bank takes account of the risk that inflation may deviate from the main scenario.

The risk outlook that was presented in the previous Inflation Report has changed somewhat. The key risk factors are still the oil price, various financial imbalances and structural changes both internationally and in Sweden. The balance between these risk factors has changed, though. In the last Report the risks of inflation being higher or lower than in the main scenario were judged to be balanced. Now, the risk of lower inflation stemming from more subdued global economic activity is deemed to be somewhat greater than the risk of higher inflation due to a higher oil price. This means that the risk of lower inflation than in the Report's main scenario is not fully balanced by the risk of higher inflation. Consequently, the risk-adjusted inflation forecast is somewhat lower than in the main scenario. The overall balance of risks is depicted in Figures 67 and 68, which show that the probability of an inflation outcome below the main-scenario forecast is higher than that of an outcome above the forecast (see also Table 11).

■■ Risk of somewhat lower inflation from international developments.

In the previous Inflation Report there was judged to be a risk of continued high oil prices and thereby higher international price pressures and larger real economic effects than assumed in the main scenario. The Riksbank has now to some extent taken account of this risk in the main scenario. The oil price is forecast to be higher in the next two years, while it seems that the economic upswing both internationally and in Sweden will be slightly more subdued. Despite these revisions of the main scenario there is still uncertainty over the oil price development and its effects. The relatively low spare capacity in the oil market, coupled with geopolitical instability and some speculative tendencies, means that there is a risk that oil prices will remain high. Were the rise in oil prices to prove more protracted than assumed in the main scenario, it could have more tangible effects on the real economy. Moreover, there is uncertainty concerning the second-round effects of the increase in oil prices to date. So, there is still a risk of higher inflation from the increase in oil prices and, at the same time, a risk of more subdued economic activity.

Recently, however, economic growth abroad has slackened more than expected. For example, growth in the euro area and in the United States in the third quarter this year was lower than anticipated. As regards the euro area, the stronger euro in relation to

the dollar could pose a risk to the current cyclical recovery. Growth in the euro area, and notably in Germany, has been characterised of late by a rise in net exports. A stronger exchange rate risks delaying the recovery there should domestic demand and employment fail to pick up again. This also increases the need for structural reform to boost growth. It is difficult to single out any one factor behind the recent dollar depreciation, even though the large deficits in the US current account and federal budget have come under the spotlight even more in recent months. The deficits risk both weakening the dollar and precipitating an increase in interest rates. The dollar could also weaken due to the need in some Asian countries to trim their current account surpluses. There is a clear risk that the dollar's decline might accelerate and thus result in a derailment of the international economic upswing. Such a development would act as a drag on both the euro area's and Sweden's economy and lead to lower inflation in Sweden.

There are also other factors in the world economy that could contribute to weaker economic activity and thereby to lower inflationary pressures than forecast in the main scenario. These include uncertainty over how property prices in a number of countries will develop in the period ahead. It cannot be ruled out that a gradual moderation of economic growth would lead to a sharp adjustment in property prices in some countries and therefore to weaker private consumption than assumed in the main scenario.

As in the previous Inflation Report there is uncertainty over what impact the abolition of the EU's import quotas on textiles and clothing in January 2005 will have on consumer prices. In practice it means that imports of clothing from, for example, China and other countries with low production costs will rise. Some account has been taken of this in the main scenario but it is difficult to judge its impact on consumer prices and how quickly the prices will be adjusted. It is possible that the effects of changed competitive conditions will be bigger, and imported inflation thus lower, than assumed in the main scenario.

On balance, the risks of inflation being lower due to more subdued international economic activity and increased international competition are judged not to be fully offset by the risks of higher inflation stemming from a higher oil price.

■■ Risks from domestic cost pressures are balanced.

The domestic risks of higher or lower inflation than in the main scenario are still deemed to be balanced, however. As in the previous Inflation Report the most significant risk is considered to be productivity growth. Productivity growth has recently been surprisingly high, which has been reflected in unexpectedly low inflation. Productivity growth varies considerably from year to year. There is considerable uncertainty over what extent the productivity growth is due to cyclical factors and what part of it is

more permanent. The Bank still judges the risks of overestimating or underestimating productivity growth to be about equal.

To sum up, the Riksbank's current assessment is that the risks stemming from domestic cost pressures still imply equal chances of inflation being higher or lower than in the main scenario. However, economic activity, particularly abroad, is associated with a small risk of somewhat lower inflation. This means that the risk-adjusted inflation forecast in Table 11 is slightly lower than the forecast in the main scenario.

Table 11. Risk-adjusted inflation forecasts.
Annual percentage change

	Annual averages			12-month rates	
	2004	2005	2006	Dec. 05	Dec. 06
CPI	0.5 (0.5)	1.1 (1.3)	2.1	1.6 (1.8)	2.4
UND1X	1.0 (1.0)	1.2 (1.2)	1.8	1.5 (1.5)	2.0

Note. The table gives the averages of the probability distributions for the inflation forecasts in Figures 67 and 68. The figures in parentheses are the corresponding figures in the October Inflation Report.

Source: The Riksbank.

Table 12. UND1X inflation (12-month rates).
Percentage probability of different outcomes

	UND1X<1	1< UND1X <2	2< UND1X <3	UND1X >3	Total
Dec. 2005	22 (29)	51 (51)	25 (18)	2 (1)	100
Dec. 2006	20 (20)	29 (29)	30 (30)	21 (21)	100

Note. The figures show the probability of UND1X inflation being within the given range. The figures in parentheses show the corresponding figures in the October Inflation Report.

Source: The Riksbank.

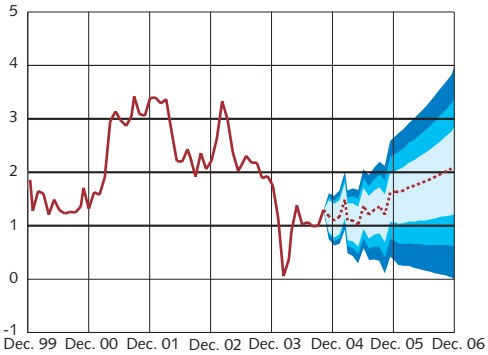
Table 13. CPI inflation (12-month rates).
Percentage probability of different outcomes

	CPI<1	1< CPI <2	2< CPI <3	CPI >3	Total
Dec. 2005	21 (21)	51 (51)	26 (25)	2 (2)	100
Dec. 2006	12 (11)	24 (24)	32 (32)	32 (33)	100

Note. The figures show the probability of CPI inflation being within the given range. The figures in parentheses show the corresponding figures in the October Inflation Report.

Source: The Riksbank.

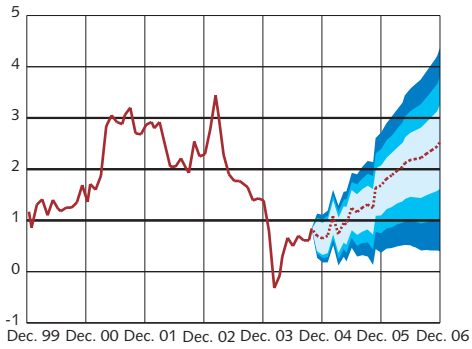
Figure 67. UND1X inflation with uncertainty bands.
Annual percentage change



Note. The uncertainty bands show the 50, 75 and 90 per cent chances of UND1X inflation being within the respective range. The broken line represents the forecast in the main scenario. The horizontal lines at 2, 1 and 3 per cent, respectively, are the Riksbank's inflation target and the tolerance limits for the annual rate of increase in the CPI.

Sources: Statistics Sweden and the Riksbank.

Figure 68. CPI inflation with uncertainty bands.
Annual percentage change



Note. The uncertainty bands show the 50, 75 and 90 per cent chances of CPI inflation being within the respective range. The broken line represents the forecast in the main scenario. The horizontal lines at 2, 1 and 3 per cent, respectively, are the Riksbank's inflation target and the tolerance limits for the annual rate of increase in the CPI.

Sources: Statistics Sweden and the Riksbank.

Boxes in previous Inflation Reports

■ 2004:3

Oil prices and monetary policy

Recent developments in inflation

Developments in the longer term

■ 2004:2

Indicators of resource utilisation

Recent developments in inflation

The exchange rate and imported inflation

Changes in calculation methods for the inflation rate

■ 2004:1

Calendar effects on production, hours and costs

Economic activity and the labour market

How persistent is the recent rise in productivity?

Recent developments in inflation

Material for assessing monetary policy 2001–2003

■ 2003:4

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Wage negotiations 2004

Fiscal policy – 1990s, now and in the future

■ 2003:3

The Riksbank's monetary policy – target and indicators

Oil prices

Recent developments in inflation

Deflation – an outline of the problems

■ 2003:2

Recent developments in inflation

■ 2003:1

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The price of electricity and inflation

The economic consequences of a military conflict in Iraq

Forecasting inflation with a rising inflation rate

Material for assessing monetary policy 2000-2002

■ 2002:4

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The SEK/EUR exchange rate

A model for indicating quarterly output changes

Relative wage developments and effects on wage formation from the cancellation of the municipal workers' agreement

Forecasting inflation with a rising repo rate

■ 2002:3

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Economic effects of the uncertain security policy situation

Life assurance companies

Stock markets in the United States

The house market

Shortages and matching problems in the labour market?

Forecasting inflation with a rising repo rate

■ 2002:2

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Has potential growth slackened?

Hours worked – a decomposition

Effects of temporarily lower productivity growth

Wage statistics and the status of agreements in spring 2002

Forecasting inflation with a rising repo rate

■ 2002:1

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Leading indicators point to a recovery

Perspectives on a recovery

Forecasting inflation with a rising repo rate

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■ 2001:4

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The relationship between growth and inflation

Forecasting inflation with a rising repo rate

■ 2001:3

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Has price flexibility changed?

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The krona's path

■ 2001:2

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■ 2001:1

Alternative scenarios for the US economy

SEK and EUR volatility

Implicit probability distributions and expected stock-market tendency

The inflation forecasts and monetary policy

■ 2000:4

Structural change and price formation

Problems with the measurement of information technology's effect on growth in the United States, Sweden and Europe

Indicator statistics and business cycle turning points: an alternative approach

Wage agreements and wage trends

Inflation and costs

An illustration of inflation forecasting with a rising repo rate

■ 2000:3

The CPI compiled with components weighted for standard deviations

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Demography, capital intensity and labour productivity

Inflation in Sweden and the euro area

The concept of a real long-term equilibrium interest rate

An illustration of inflation forecasting with a rising repo rate

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The Riksbank's forecasts 1993–98

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Real interest rate and monetary policy

Household wealth and private consumption

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An illustration of inflation forecasting with a rising repo rate

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Wage formation and the inflation target

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An illustration of inflation forecasting with a rising repo rate

■ 1999:3

Prices in the past year and the Riksbank's forecasts

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Output gap, capacity utilisation and inflation

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Has the relationship between the output gap and inflation changed?

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■ 1998:2

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A breakdown of the CPI

Estimating potential GDP and the output gap

Monetary policy transmission mechanism

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(no boxes)

■ 1995:3

EU harmonisation of the CPI

■ 1995:2

Relationship between producer and consumer prices

Relationship between output gap and inflation

Money supply and inflation

■ 1995:1

Relationship between producer and consumer prices

Aspects of the output gap

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■ 1994:3

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■ 1993:3

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