



# Inflation Report

2003:4



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## ■ Foreword

The Riksbank's monetary policy is targeted at keeping inflation at 2 per cent, with a tolerance for deviations up to  $\pm 1$  percentage point.

This Inflation Report reproduces the main features of the presentations and discussions of inflation at the Executive Board meetings on 20 and 27 November 2003. The assessment presented here is the Riksbank's overall appraisal of inflation prospects in the current situation. The Report constitutes the background to the Bank's monetary policy decision on 4 December 2002. Executive Board members may differ in their opinions about how inflation's principal determinants will develop and the resultant impact on future inflation. Any divergent opinions of inflation prospects are recorded in the separate minutes of the Board meeting on 4 December, to be published on 18 December 2003.

The purpose of the Inflation Report is not merely to produce background material for monetary policy decisions; it also serves to diffuse knowledge of the assessments made by the Riksbank. The Riksbank wishes to make it easier for external parties to follow, understand and assess monetary policy. The Report is also intended to encourage a discussion of matters relating to monetary policy.

This Report presents the Riksbank's appraisal of inflation prospects up to the end of 2005 Q4. In order to clarify the consequences for monetary policy, the analysis starts from the technical assumption of an unchanged repo rate during this period.

The report begins with a summary. This is followed by a discussion of the most probable development of inflation's principal determinants. Finally, there is a presentation of the Riksbank's overall assessment of inflation prospects in the main scenario and the most important risks in the assessment. The Report also contains three Boxes. The first covers recent developments in inflation and the others take up two issues that are always important when making assessments of inflation and conducting monetary policy: wage negotiations and fiscal policy.

Stockholm, December 2003  
Lars Heikensten  
Governor of Sveriges Riksbank



## ■ Summary

*Inflation has been above the target rate for the greater part of the past year. Price trends have been strongly affected by fluctuations in energy prices. Energy prices are expected to continue to have a significant impact on inflation during the forecast period. The assessment is that inflation will continue to fall over the coming months, after which it will rise gradually.*

*International and domestic resource utilisation are currently assessed to be at low levels and, given a continued relatively slow recovery, cost pressures in Sweden and abroad are therefore expected to rise only slightly. The same applies to cyclical inflation. Both CPI and UND1X inflation adjusted for energy prices are expected to be around 2 per cent, both one and two years ahead.<sup>1</sup>*

### ■ ■ Slow recovery in world economy.

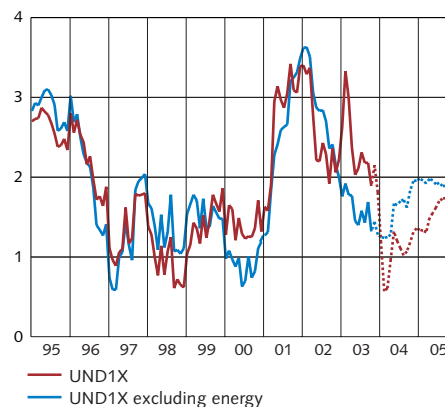
The view of economic growth in the United States has gradually become more optimistic. Recent statistics indicate that economic growth is marginally stronger than anticipated. The most positive surprise has come from investment and net exports. This could be due to the weaker dollar and increases in corporate profits. Various confidence indicators as well as stock market developments are implying increased optimism in the United States. There are also signs of a turnaround in the labour market. Other areas showing strong development are Asia, eastern Europe and central Europe. The euro area has shown slower growth than the rest of the world economy this year, but there are now also signs of a more positive trend and increased optimism there.

Over the coming period, the growth rate for the world economy as well as for Swedish export markets is expected to increase. In the United States, continued expansionary economic policy, an improved labour market and the relatively weak dollar should contribute to increased growth. The recovery in the US economy in the near future is expected to provide impetus to European countries as well. However, it is mainly domestic demand that will govern economic developments in Europe. Despite the recovery, resource utilisation in both the United States and Europe is expected to remain relatively moderate during the entire forecast period. All in all, the Riksbank's assessment is that GDP growth in the OECD area will rise slightly, reaching 2.0 per cent this year, 2.9 per cent in 2004 and 2.7 per cent in 2005. This is a marginal upward revision on the assessment in the previous Inflation Report, which is primarily due to a slightly more optimistic view of growth in the United States.

### ■ ■ Slightly rising import prices.

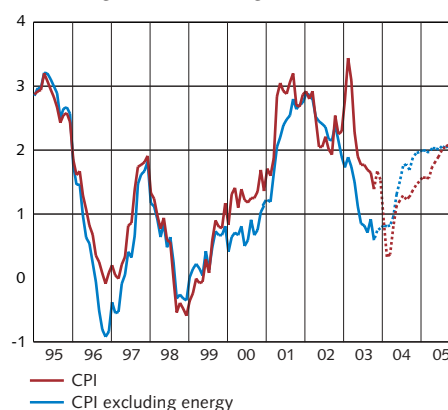
International export price pressure has been very low in recent months. However, international export prices are expected to rise again as global resource utilisation picks up. During 2005, the rate of

Figure 1. UND1X inflation including and excluding energy prices, outcome and forecasts according to main scenario. Percentage 12-month change



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

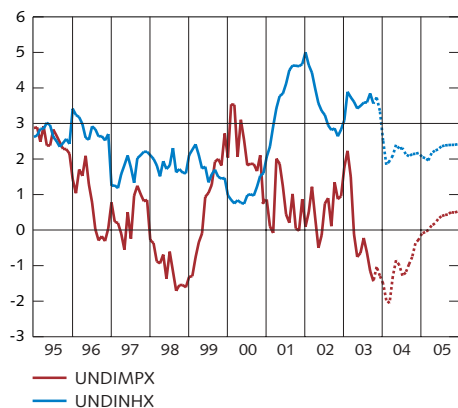
Figure 2. CPI inflation including and excluding energy prices, outcome and forecasts according to main scenario. Percentage 12-month change



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

<sup>1</sup> UND1X is defined as CPI excluding household mortgage interest expenditure and the direct effects of changes in indirect taxes and subsidies.

**Figure 3. Different measures of inflation, outcomes and forecasts in the main scenario.**  
Percentage 12-month change



Note. The broken line represents the Riksbank's forecast. UNDINHx refers only to prices of mainly domestic goods and services in UND1X. UNDIMPX refers to prices of mainly imported goods and services in UND1X.

Sources: Statistics Sweden and the Riksbank.

price increase is forecast at just under 2 per cent. The impact of international price trends in Sweden will depend partly on exchange rate developments. In terms of the TCW index, the krona has appreciated over the past two years. During the forecast period it is expected to appreciate further to some extent. There is thus good reason to expect that the development of the krona will continue to slightly subdue import prices.

Oil prices have a direct effect on Swedish import prices. They remain at a high level and the forecast for oil prices up to summer 2005 has therefore been revised upwards. However, they are expected to fall again in the period ahead, which will have a restraining effect on international price pressure. Prices of other commodities have accelerated more over the past year. However, pricing in the forward market for metals indicates that prices will fall from their present high levels during the forecast period. All in all, the assessment is that import prices for consumers will continue to fall next year and only begin to rise slightly at the beginning of 2005 (see Figure 3). The forecast for import prices now shows a slightly steeper fall over the coming year than was assessed in the previous Inflation Report. This downward revision is partly due to import prices falling more than expected recently, which may be due to greater pass-through to prices from the krona appreciation than was previously assumed.

#### ■ ■ View of economic activity in Sweden unchanged.

Despite growth in export markets appearing to be slightly slower this year, the Riksbank's earlier view of exports of goods was probably overly pessimistic. This impression is gained from recent statistics. Some upward revision is now being made for 2003 with regard to both exports and imports. The difficult financial situation of local governments leads to an assessment that taxes will need to be raised further next year. Nevertheless, public consumption is expected to show slightly weaker growth than was previously assumed. The view of total growth in the Swedish economy remains on the whole the same as that expressed in the October Inflation Report. GDP growth is expected to be 1.5 per cent this year, 2.4 per cent during 2004 and 2.5 per cent in 2005. The growth rate is expected to increase gradually and at the end of this year and the beginning of next year it is expected to approach the historical average. This assessment is supported by business tendency survey data, which indicates some optimism among firms for Q4 this year. During 2004 and 2005, growth is expected to accelerate further as a result of an upturn in investment. Household consumption is also expected to contribute to this favourable development, with growth of around 2 per cent a year. On the other hand, foreign trade and public sector consumption are not expected to provide any real positive contribution to GDP growth. The growth forecast entails only a moderate increase in resource utilisation during the forecast period.



Domestic cost pressures are expected to be slightly weaker than in the assessment made in October. There are numerous indications that productivity in the business sector has continued to increase at a good rate. There are no definite answers as to why productivity has shown such favourable growth recently. This makes it difficult to assess future productivity growth. However, the result so far indicates that the Riksbank needs to make some upward revision to its forecasts for productivity this year and next year.

Developments in the number of job vacancies and discharge notices indicate that employment will develop less positively than anticipated. This should in turn have a restraining effect on wage inflation. The forecasts for wages in the business sector have therefore been lowered slightly for 2004 and 2005. Higher productivity and lower wage increases lead to the assessment that labour costs will rise at a slightly slower rate during the forecast period, compared with the assessment in the October Inflation Report. The present forecast is that unit labour costs will rise by 1.4 per cent this year and by 1.6 per cent in 2004 and 2005.

#### ■ ■ Moderate inflation.

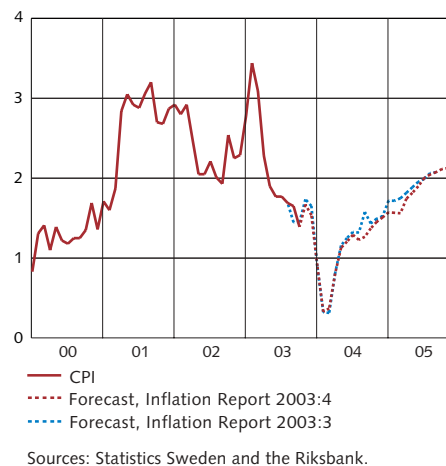
Over the past year, inflation has been strongly influenced by fluctuations in energy prices (see Figures 1 and 2). Both UND1X and CPI inflation rose from just over 2 per cent at the end of last year to just below 3.5 per cent in February 2003. Since then, inflation has declined, partly as a result of the fall in energy prices. Nevertheless, both CPI and UND1X inflation have been above target for most of the past year. In October, however, CPI inflation was as low as 1.4 per cent and UND1X was 1.9 per cent. The difference between these two measures is due to the Riksbank's interest rate cuts, which led to lower mortgage interest expenditure, and this has a direct impact on CPI but not UND1X.

The decline in inflation this year has been less than expected, mainly due to electricity and oil prices failing to fall as forecast. The Riksbank has therefore made gradual upward revisions to its energy price forecasts and some upward revision appears to be motivated in this report. However, energy prices are still expected to fall in the near future, which will subdue inflation during the forecast period (see Figures 1 and 2).

It is currently possible to observe some tendencies towards contagion effects from the high energy prices in the market for rental apartments. Relatively high rent demands have been made and the most important reasons given for this are rising charges and higher prices for electricity. The rent index in CPI is therefore expected to increase more over the coming two years than was assessed in the October Inflation Report.

The current assessment is therefore that both CPI and UND1X inflation will continue to fall initially as a result of energy prices returning to more normal levels. Thereafter, inflation will rise once again, partly due to a decline in the dampening effect of energy prices

Figure 4. CPI inflation, outcome and forecasts in October Inflation Report and December Inflation Report. Percentage 12-month change



Sources: Statistics Sweden and the Riksbank.

on inflation. Other factors behind the upturn include a slight rebound in import prices. On the other hand, domestic cost pressures will provide only a marginal contribution to the increase in inflation. CPI inflation is expected to be 1.5 per cent one year ahead and 2.2 per cent two years ahead. The corresponding figures for UND1X inflation are 1.4 per cent and 1.8 per cent, respectively. Both CPI and UND1X inflation adjusted for energy prices are expected to be around 2 per cent, both one and two years ahead. Compared with the assessment in the October Inflation Report, the forecasts for CPI and UND1X inflation remain largely unchanged (see Table 1).

The Riksbank's assessment is that it is mainly temporary fluctuations in energy prices that have pushed up inflation over the year. The most recent interest rate decision was therefore based on the assessment that there was reason to give less consideration to energy price trends and that future developments in the underlying, cyclical inflation rate would be in line with the inflation target. This does not mean that energy prices can always be excluded from the assessment of inflation trends that forms the basis for the interest rate decisions. The issue of which price effects are temporary in nature will vary over time and must be considered from case to case. However, the Riksbank's experiences indicate that the most significant reasons for temporary fluctuations in inflation that do not need to be counteracted are changes in interest expenditure due to the Riksbank's monetary policy measures, direct effects of changes in indirect taxes and subsidies and large, supply-driven price changes.

#### ■ ■ **Balanced risk spectrum.**

The risk spectrum is also relevant for the formation of monetary policy. As before, the overall assessment for inflation in Sweden is that the risks of higher inflation than in the main scenario are offset by the risks of lower inflation. However, the uncertainty factor in the assessment is considered to be slightly lower. Another difference is that both international and domestic risks are considered to be independently balanced.

As in the October Inflation Report, the assumption is that there is a risk of weaker growth in demand than in the main scenario, both in Europe and the United States. In Europe the strained fiscal policy situation in Germany and France in particular remains a source of uncertainty, which may have significance for the way in which households and firms act in future. In the United States, the deficit in the current account and public finances may force an upturn in interest rates, which would curb consumption and investment. In addition, there are risks connected with developments in the international foreign exchange markets. While a weaker dollar could facilitate an adjustment of the deficits in the US economy, it could at the same time delay the economic upturn in Europe. However, there is also a possibility that the international recovery will be more rapid than is assumed in the main scenario, which is emphasised by recent developments in the United States and Asia.

Wage formation and electricity prices are still considered to entail risks of higher inflation than in the main scenario. A large number of central wage agreements will expire during the forecast period and tensions and rigidities in the labour market mean that the possibility of higher wage increases cannot be ruled out. The fact that electricity prices are now expected to remain relatively high during a long period of time means that the risk of contagion to other prices and costs has increased somewhat. Rent demands for 2004 are an indication of these risks. In addition, there is a risk that electricity prices will be raised further, which is reflected by pricing in the forward market. Although most factors so far still indicate that energy prices will gradually return to more normal levels and that contagion effects will be fairly small, developments are far from certain and will need to be monitored carefully.

At the same time, there are signs that domestic inflationary pressures could be lower than expected. One reason for this is that productivity growth has been surprisingly good. The underlying, demand-driven inflation rate has also showed a weaker increase than expected during the year. In addition, some factors, such as weak labour market conditions, indicate that domestic demand could be lower than is assumed in the main scenario.

**Table 1. Inflation forecasts in the main scenario.**  
**Percentage 12-month change**

	Annual average			12-month rate		
	2003	2004	2005	Dec 2004	Sept. 2005	Dec 2005
CPI	2.1 (2.1)	1.1 (1.1)	1.9	1.5 (1.5)	2.1 (2.1)	2.2
UND1X	2.3 (2.3)	1.1 (1.2)	1.6	1.4 (1.4)	1.7 (1.7)	1.8
UNDINHx	3.6 (3.6)	2.2 (2.0)	2.3	2.2 (1.9)	2.4 (2.4)	2.4
UNDIMPX	-0.1 (-0.1)	-1.1 (-0.5)	0.3	-0.3 (0.3)	0.4 (0.4)	0.5
UND1X excluding energy	1.6 (1.6)	1.6 (1.7)	1.9	2.0 (1.9)	1.9 (2.0)	2.0
CPI excluding energy	1.1	1.4	2.1	2.0	2.1	2.2

Note. The figures in parentheses are the forecasts in the October Inflation Report. UND1X is CPI inflation excluding household mortgage interest expenditure and the direct effects of changes in taxes and subsidies. UNDINHx refers only to prices of mainly domestic goods and services in UND1X. UNDIIMPX refers to prices of mainly imported goods and services in UND1X.

Sources: Statistics Sweden and the Riksbank.

#### Revised forecasts since the October Inflation Report.

- The forecast for GDP growth in the United States has been revised upwards for 2003 and 2004. This is because of unexpectedly strong growth so far this year.
- Imported inflation is expected to be lower over the coming year, due to low wage increases and lower unit labour costs.
- Domestic inflation is expected to be marginally higher during 2004 as a result of higher rents and electricity prices.
- The assessments of both CPI and UND1X inflation remain largely unchanged, both inclusive and exclusive of energy prices.



## ■ Determinants of inflation

*This chapter presents the main scenario for the development of inflation's principal determinants in the coming two years. It begins with an account of developments in the financial markets. This is followed by an analysis of economic developments both internationally and in Sweden.*

### The financial markets

*Political manoeuvring and increased awareness of the large deficits in the US current account and public finances have led to the dollar continuing to weaken. Both international and Swedish long-term interest rates have risen slightly. Share prices around the world have continued to rise, partly due to profits for Q3 exceeding expectations.*

#### ■ ■ Rising long-term interest rates.

International long-term interest rates reached a record low in mid-June, but have risen since then (see Figure 5). Positive economic signals in the United States have contributed to this development, as has an increased supply of government securities in the United States in particular, but also in Europe. Repeated statements from the Federal Reserve on continuing to conduct an expansionary monetary policy have contributed to expectations of low short-term interest rates and had a restraining effect on long-term interest rates. Market pricing of forward contracts indicates an expectation of tighter policy stance in the United States of around 0.25 percentage points in spring at the earliest. The European Central Bank, ECB, is also expected to conduct tighter monetary policy towards next summer. The Bank of England was the first major central bank to raise its key rate, with an increase of 0.25 percentage points in November.

As forecast earlier, Swedish long-term interest rates are expected to continue to rise during the forecast period as economic activity increases. As interest rates have risen more than expected recently, the forecast is being revised upwards for the coming quarters. On the other hand, the longer-term assessment remains unchanged. The yield on ten-year Swedish government bonds is expected to increase to an average of 5.2 per cent in 2004 and 5.6 per cent in 2005.

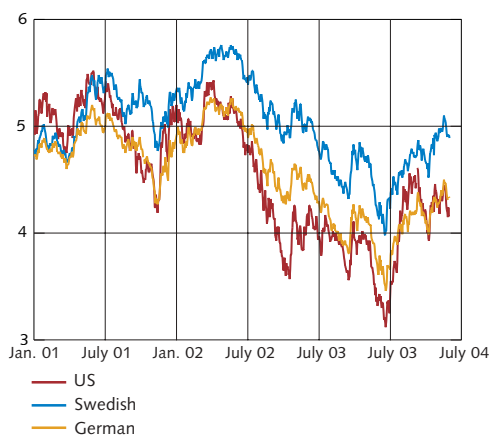
#### ■ ■ Repo rate expected to remain unchanged until the spring.

Market participants' expectations of monetary policy in Sweden have been revised slightly upwards since the October Inflation Report (see Figure 6). Market pricing indicates a possible interest rate increase of 0.25 percentage points in the spring. The most recent survey from SME (SIX Markets) shows that market analysts are expecting no increase until mid-2004. According to Prospera's survey, a total increase in the repo rate of 0.5 percentage points is expected one year ahead.

#### ■ ■ Krona expected to appreciate further.

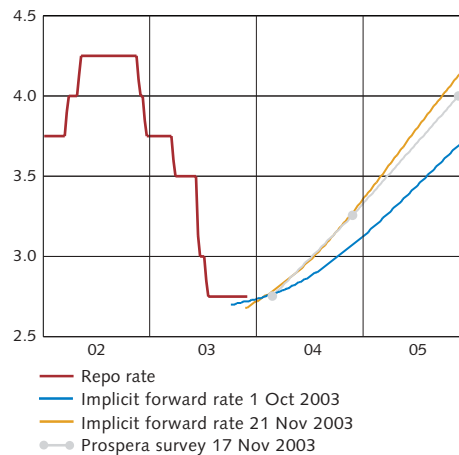
The dollar has weakened against both the euro and the Japanese yen, despite the high growth level in the US economy. This is partly due to

**Figure 5. Government bond yields with 10-year maturity in Sweden, Germany and USA.**  
Per cent



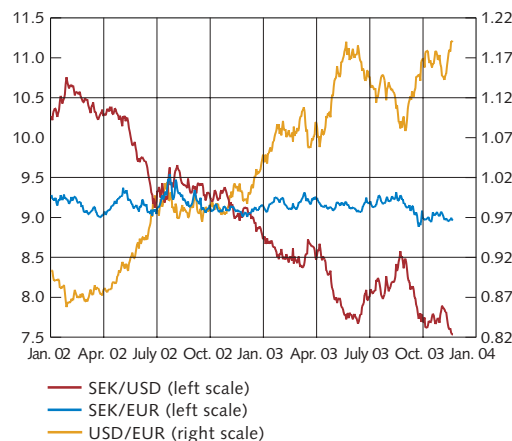
Source: The Riksbank.

**Figure 6. Monetary policy expectations in Sweden according to implicit forward rates and survey data.**  
Per cent



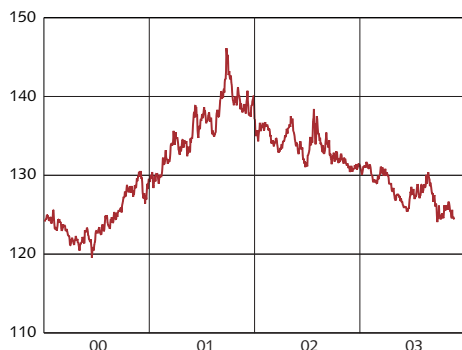
Sources: Prospera and the Riksbank.

**Figure 7. Exchange rates for SEK/USD, SEK/EUR and EUR/USD.**  
Daily rates



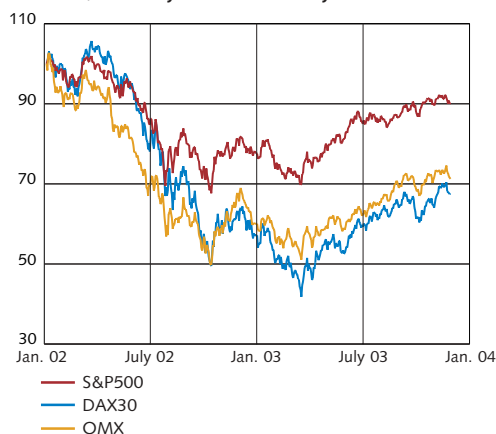
Source: The Riksbank.

14 **Figure 8. SEK/TCW exchange rate. Index, 18 November 1992 = 100**



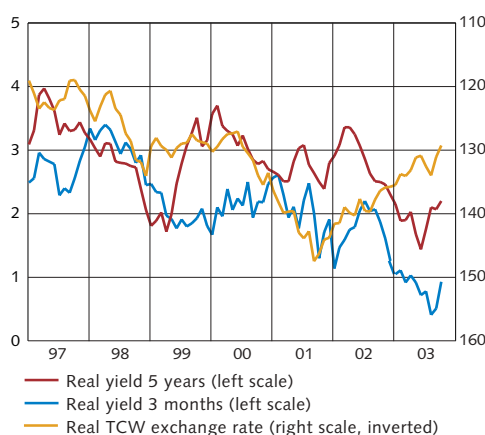
Source: The Riksbank.

**Figure 9. Stock market trends: S&P500, DAX 30 and OMX. Index, 1 January 2002 = 100. Daily rates**



Source: The Riksbank.

**Figure 10. Real TCW exchange rate and real yields on 3-month T-bills and 5-year government bonds. Per cent and index units**



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

increased awareness of the large deficits in the US current account and public finances. The foreign exchange markets have been affected to a large degree by the discussion of the value of the dollar following on from the October G7 meeting.

The krona has strengthened against both the dollar and the euro since the referendum in September (see Figure 7). In the near future, the krona is expected to appreciate further. This assessment is based on good growth prospects for the Swedish economy, as well as relatively favourable public finances and a continued surplus on the current account. In TCW index terms, the krona is expected to appreciate to an average of 124 SEK/TCW during 2004 and 123.7 SEK/TCW during 2005. Thus, the forecast for the krona rate over the coming two years remains unchanged since the October Inflation Report.

**■ ■ Strong signs of stock market recovery.**

Share prices around the world have risen steadily since last spring (see Figure 9). Positive US macro statistics and surprisingly good profits in interim reports have provided support for a continued stock market upturn in October. The risk premium on stock markets appears to have been reduced, which is indicated by a decline in implicit volatility. The yield spread between corporate and government bonds is also at a relatively low level. The positive profit trends shown in the largest companies on Stockholmsbörsen are still due to these firms continuing to cut costs rather than to an increase in income.

**■ ■ Interest and exchange rates expected to have more restraining effect in future.**

Developments in nominal interest rates and exchange rates have led to slightly more restrictive financial conditions since the October Inflation Report. Low inflation and low inflation expectations have also contributed to this. The real trade-weighted krona rate has appreciated and real yields on 3-month and 5-year government securities have increased slightly (see Figure 10). The overall assessment made of future inflation, the nominal exchange rate and interest rate developments means that the real exchange rate and real interest rates have a more restraining effect on the economy during the forecast period. However, this will be counteracted by rising prices on assets such as houses and equity, as these will have a positive effect on household wealth and consumption.

## International economic activity and inflation

Since the October Inflation Report, there have been increased indications that the recovery in the world economy is proceeding largely as expected. The rate of growth in the world economy and in Swedish export markets is judged to accelerate next year. A rise is also foreseen in international export prices in line with higher global resource utilisation in the coming two years.

Recently, several of the factors that have been curtailing world economic growth have become less significant. These include the declines seen in investment and equity markets. In addition, the stance of economic policy has been more expansionary for a longer period. The upswing is being led by the United States and Asia, but increasingly positive economic signals are also evident elsewhere. Thus, the cautious recovery in the world economy that was forecast in the October Inflation Report appears to have continued during the autumn and become more broad-based.

The forecast for Swedish export market growth in 2003 has been revised down somewhat. This is mainly due to unexpectedly weak imports in the United States so far this year. Next year, the rate of growth in the world economy and in Swedish export markets is judged to accelerate (see Figure 11). Trade with non-EU countries is already increasing strongly. In 2004, growth is also anticipated to rise in the EU countries, which comprise the majority of Sweden's trading partners (see Figure 22).

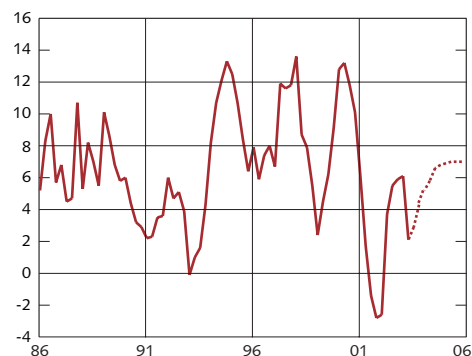
International export prices have declined in recent years. During the forecast period, however, they are judged to rise in line with an increase in resource utilisation (see Figure 12). But as there is expected to be unutilised resources in the world economy during the forecast period, global inflationary pressures are anticipated to remain modest (see Figure 13).

### ■ ■ Stronger growth than expected in the United States in Q3.

US economic growth has been somewhat more robust than expected this year. New preliminary data have shown that GDP in Q3 rose 1.7 per cent compared with the previous quarter, which was more than anticipated. Tax cuts and low interest rates contributed to high household demand. There was also a strong rise in corporate sector investment, notably in machinery and software (see Figure 14). Moreover, net exports increased, assumedly due to the depreciation of the dollar. Various indicators point to a continued rise in production over the rest of the year (see Figures 15 and 16).

Consumption growth in the United States is expected to remain stable, bolstered by loose economic policy and better labour market conditions. GDP growth is also expected to be supported by a rise in corporate sector investment. Investment is supported by low real rates of interest and continued increasing profits (which at aggregate level is reflected in the growth differential between nominal GDP and labour costs). Moreover, the relatively weak dollar is expected to

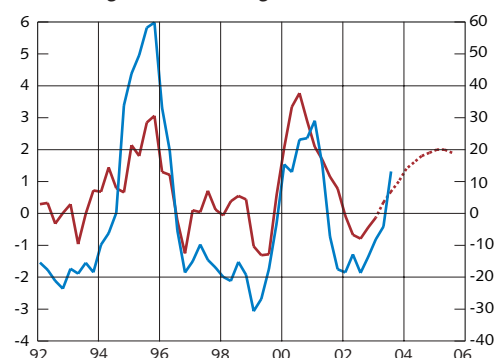
**Figure 11. Swedish exports: market growth.**  
Percentage 12-month change



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

Sources: NIESR and the Riksbank.

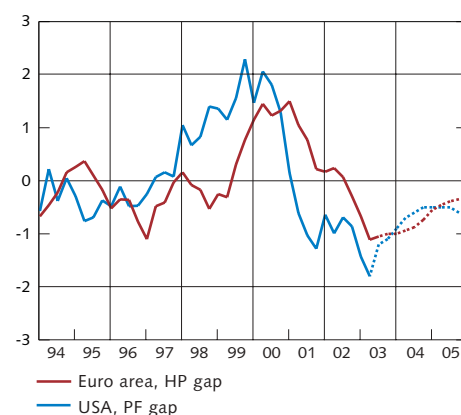
**Figure 12. International export prices for manufactured products and commodity price index.**  
Percentage 12-month change



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

Sources: The Economist, NIESR and the Riksbank.

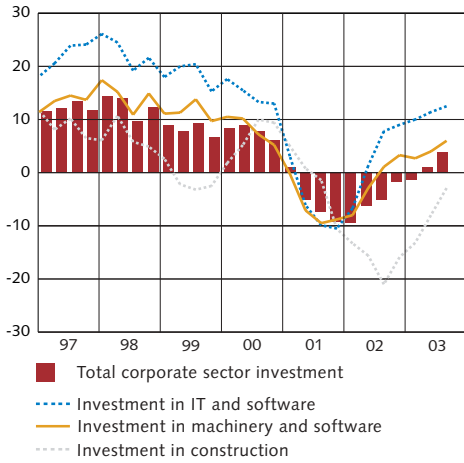
**Figure 13. United States and the euro area: output gaps.**  
Per cent of potential GDP



Note. The GDP series for the euro area has been trend-adjusted using a HP filter (Hodrick-Prescott or Whittaker-Henderson filter). A production function approach has been used for the United States. The broken line is the Riksbank's forecast.

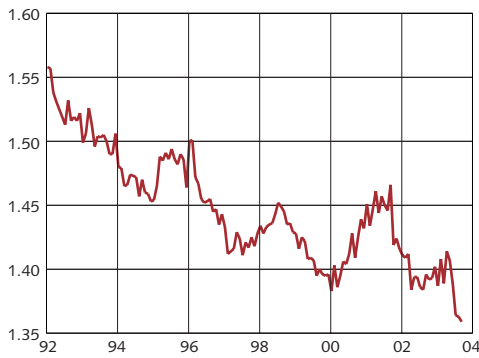
Sources: Eurostat, US Department of Commerce and the Riksbank.

16 **Figure 14. US corporate sector investment.**  
Percentage 12-month change



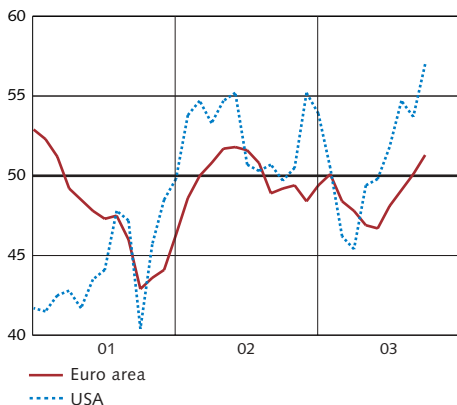
Source: US Department of Commerce.

**Figure 15. Inventory ratio in the US corporate sector.**  
Ratio (inventories/sales)



Source: US Department of Commerce.

**Figure 16. United States and the euro area: purchasing managers' index in manufacturing.**  
Index



Source: NTC Research Ltd.

boost exports and reduce the trade deficit. In all, GDP growth in the United States is forecast to outpace its long-term sustainable rate in 2004. In the following year, growth is expected to fall back somewhat due to tighter economic policy (see Figure 17 and Table 2).

■ ■ **Recovery in the euro area gathers pace in 2004.**

Euro area growth this year has been considerably slacker than in the rest of the world economy. The second quarter even witnessed a decline in GDP. However, recent data indicate some recovery in the euro area as well. Preliminary figures showed a rise in growth during Q3 (see Figure 17). Some optimism can also be seen in both the purchasing managers' index for the euro area (see Figure 16) and the German Ifo index.

In the coming two years, stronger economic activity in the United States is expected to provide a fillip to the European countries. Gradually, however, domestic demand is anticipated to become the driving force, spurred by low real rates of interest. Next year, tax cuts are planned in Germany and France. These are judged to have some positive effects on consumption. The effects are partly hampered, however, by other cutbacks in the public sector. Inflationary pressures in the euro area are forecast to remain modest in the coming two years, due in part to low resource utilisation. GDP growth is judged to approach its long-term sustainable rate during the course of 2004 and to eventually outpace it (see Figure 17 and Table 2).

■ ■ **Somewhat higher oil price in the quarters ahead.**

The price of oil has remained high since the October Inflation Report. This is most likely attributable to disruptions in production in Iraq and Nigeria, as well as to speculation that OPEC is to scale back production. It is also possible that higher demand for oil has affected the price. Thus, the forecast has been revised up in the short term, which implies a marginally higher expected price of oil in 2003 and 2004 (see Table 2). Nevertheless, the price of oil is anticipated to fall back during the forecast period.

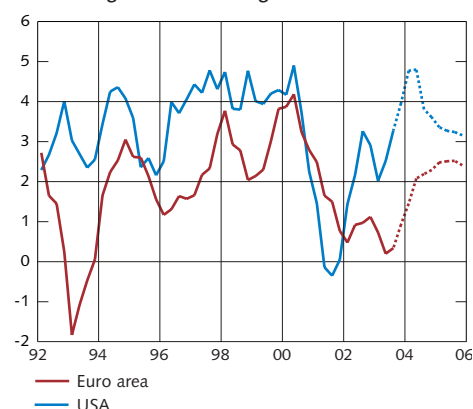
Prices of other commodities have accelerated over the past year (see Figure 12). However, pricing in the forward market for metals indicates that prices will fall from their present high levels during the forecast period.



**Revised forecasts since the October Inflation Report.**

- GDP growth in the United States is expected to be somewhat stronger this year and next year. This is due to an upward revision in the forecast for corporate sector investment and expectations of a less negative contribution from net exports.
- Swedish export market growth is judged to be marginally lower in 2003 owing to weaker imports in the United States.
- The price of oil is forecast to be somewhat higher in the short term.

**Figure 17. United States and the euro area: GDP growth and forecasts.**  
Percentage 12-month change



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

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

**Table 2. International conditions.**  
Percentage 12-month change

	GDP					CPI				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
USA	0.3	2.4	3.0 (2.9)	4.2 (4.0)	3.2 (3.2)	2.8	1.6	2.4 (2.3)	1.8 (1.7)	2.3 (2.3)
Japan	0.4	0.2	2.6 (2.6)	1.9 (1.9)	1.5 (1.5)	-0.7	-0.9	-0.2 (-0.2)	0.1 (0.1)	0.3 (0.3)
Germany	0.6	0.2	0.0 (0.0)	1.6 (1.6)	2.0 (2.0)	1.9	1.3	1.1 (1.1)	1.1 (1.1)	1.4 (1.4)
UK	2.1	1.7	2.0 (1.8)	2.6 (2.5)	2.7 (2.7)	2.1	2.2	2.8 (2.7)	2.4 (2.4)	2.5 (2.5)
Denmark	1.4	2.1	1.0 (1.0)	2.0 (2.0)	2.2 (2.2)	2.3	2.4	2.2 (2.2)	2.0 (2.0)	2.0 (2.0)
Finland	1.2	2.2	1.4 (1.4)	2.5 (2.5)	3.2 (3.2)	2.7	2.0	1.4 (1.4)	1.3 (1.3)	1.8 (1.8)
Norway	1.7	1.3	0.5 (0.5)	2.3 (2.3)	2.6 (2.6)	3.0	1.3	2.2 (2.2)	2.0 (2.0)	2.5 (2.5)
Euro12	1.6	0.9	0.6 (0.6)	1.9 (1.9)	2.5 (2.5)	2.3	2.3	2.0 (2.0)	1.7 (1.7)	1.7 (1.7)
TCW-weighted	1.2	1.2	1.1 (1.1)	2.3 (2.3)	2.5 (2.5)	2.3	1.8	1.9 (2.0)	1.6 (1.7)	1.8 (1.9)
OECD 19	0.9	1.5	2.0 (1.9)	2.9 (2.8)	2.7 (2.6)	2.1	1.4	1.9 (1.8)	1.5 (1.5)	1.8 (1.8)

	2001	2002	2003	2004	2005
Swedish export market growth	0.8	3.1	3.8 (4.0)	6.1 (6.1)	6.9 (6.9)
Average export prices in national currencies	1.4	-0.5	0.5 (0.5)	1.7 (1.7)	1.9 (1.9)
Crude-oil price, 12-month average (USD/barrel Brent Blend)	24.5	25.0	28.8 (28.5)	25.6 (25.2)	22.8 (22.8)

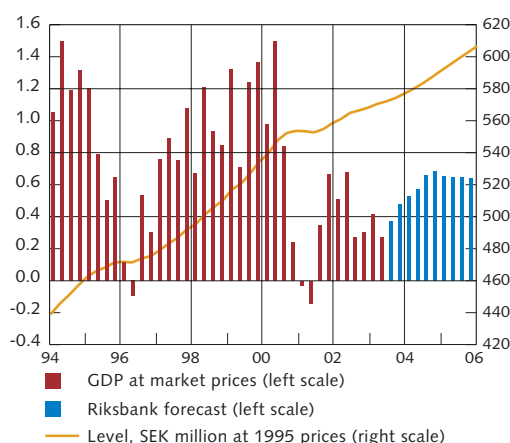
Note. CPI refers to RPIX for the UK and HICP for Germany, Denmark and Finland. GDP for Norway refers to the mainland economy. OECD 19 is the United States, Canada, Japan, Norway, Switzerland and the EU countries excluding Luxembourg. The figures in parentheses are the forecasts in the October Inflation Report. Swedish export market growth refers to growth in imports of goods for all countries to which Sweden exports. The forecast is a weighted average of each country's share of total Swedish exports 2000-2001.

Source: The Riksbank.

## Economic activity in Sweden

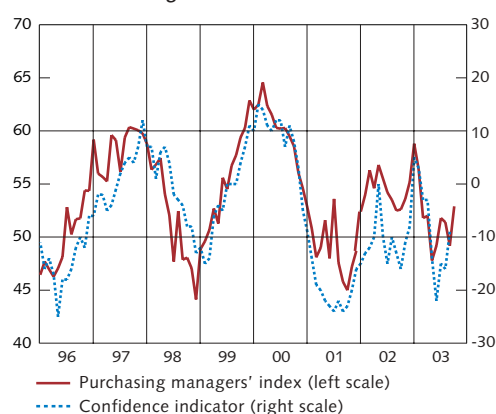
*Economic conditions in Sweden during the summer and early autumn could be described as subdued and rather mixed. Data and indicators in recent months have not changed the outlook to any great extent. However, indications that economic activity is on the road to improvement have gradually become somewhat more evident.*

**Figure 18. GDP.**  
Percentage quarterly change, daily and seasonally adjusted, and level. SEK million at 1995 prices, 2003:3-2005:4 forecast.



Sources: Statistics Sweden and the Riksbank.

**Figure 19. Business tendency survey: purchasing managers' index and confidence indicator.**  
Index and net figures



Sources: FöreningsSparbanken and the National Institute of Economic Research.

During 2003, GDP growth has been driven largely by household consumption. In 2004 and 2005, a pickup in investment is expected to contribute to higher growth. The forecasts for imports and exports have been revised up slightly compared with the October Inflation Report owing to unexpectedly robust foreign trade in Q3 this year. On the other hand, the forecast for public sector consumption in 2004 and 2005 has been revised down somewhat due to strained local government finances. GDP growth is forecast at 1.5 per cent in 2003, 2.4 per cent in 2004 and 2.5 per cent in 2005.

**Table 3. Demand and supply in the main scenario.**  
Percentage 12-month change

	2002	2003	2004	2005
Household consumption	1.5	1.8 (1.8)	2.3 (2.3)	2.0 (2.0)
Public authority consumption	3.2	0.8 (0.8)	0.6 (0.9)	0.7 (0.8)
-central government	4.1	-0.2 (-0.2)	-0.1 (0.0)	0.1 (0.1)
-local government	2.8	1.2 (1.2)	0.9 (1.3)	0.9 (1.1)
Gross fixed capital formation	-3.0	-1.2 (-1.0)	4.6 (4.6)	6.0 (6.0)
Stockbuilding, contribution	-0.1	0.3 (0.4)	0.1 (0.1)	0.0 (0.0)
Exports	0.2	4.0 (3.5)	4.9 (4.9)	5.8 (5.8)
-goods	1.0	4.0 (3.4)	5.2 (5.2)	6.2 (6.2)
-services	-2.6	4.0 (4.0)	4.0 (4.0)	4.5 (4.5)
Imports	-2.5	3.9 (3.8)	5.5 (5.5)	5.9 (5.9)
-goods	-1.3	4.0 (3.8)	6.0 (6.0)	6.6 (6.6)
-services	-5.5	3.6 (3.6)	4.0 (4.0)	4.0 (4.0)
GDP at market prices	1.9	1.5 (1.5)	2.4 (2.4)	2.5 (2.5)

Note. The figures in parentheses are the forecasts in the October Inflation Report. The forecasts refer to actual growth.

Sources: Statistics Sweden and the Riksbank.

### ■ ■ Economic indicators point to higher growth.

According to the National Institute of Economic Research's (NIER) quarterly business tendency survey in October, production volumes in manufacturing increased somewhat more in Q3 than firms' expected in July. Nevertheless, the survey indicates that the recovery in manufacturing has been sluggish. The number of new orders was practically unchanged between Q2 and Q3. Demand for motor vehicles and telecom products has increased, while parts of the intermediate goods industry have been reporting a deterioration in competitiveness in the export market. Firms are optimistic ahead of Q4, however, and the confidence indicator for manufacturing has risen close to its historical average.

Moreover, the purchasing managers' index for October points to an incipient pickup in manufacturing activity (see Figure 19). This survey, which was conducted more recently than the business tendency survey, provides a somewhat brighter picture of firms' order situation.

The business tendency survey also indicates persistent weakness in construction. At the same time, conditions for computer consultants and other business services seem to be on the road to improvement. There has been an upturn in demand during Q3, and this is expected to continue in Q4. However, firms in the consultancy sectors are still highly dissatisfied with the number of assignments.

The NIER's Consumer Survey suggests that households were somewhat less optimistic in October compared with the previous month (see Figure 20). Household expectations regarding their own finances, the Swedish economy and unemployment were lower. In quarterly terms, however, households' view of their own finances has changed little. Retail sales growth has been robust in recent months. The business tendency survey points to healthy sales, and the motor vehicle industry and durable goods industry are optimistic about the near future.

New economic data have generally been well in line with the assessment in the October Inflation Report. On balance, the data have pointed to a cautious recovery.

#### ■ ■ Difficult situation for local governments.

Declining tax receipts have put local governments into a tight financial situation. Several local governments are planning to raise taxes relatively sharply at the beginning of next year. The Riksbank forecasts the hikes to average approximately SEK 0.30, which is somewhat higher than assumed in the October Inflation Report. Against the background of local governments' financial situation, the forecast for local government consumption has been revised down somewhat (see Table 3). Next year, central government consumption is also expected to be marginally weaker.

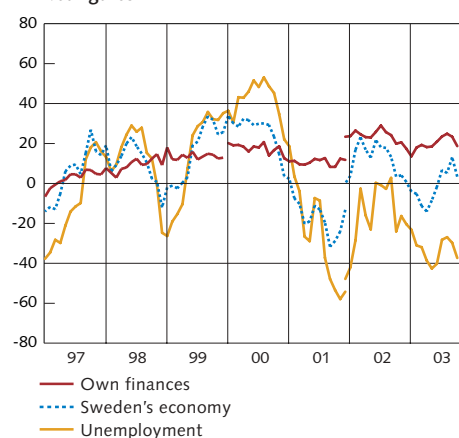
Nevertheless, the forecast for the public finances is in line with that in the October Inflation Report (see the box "Fiscal policy – 1990s, now and in the future" for a discussion of the stance of fiscal policy and the budget targets).

#### ■ ■ Stable consumption growth.

The most important factor for household consumption is growth in income and wealth, even if other aspects such as interest rate levels are also of significance. In addition, households appear to take a relatively long-term approach and smooth their consumption over time. This points to comparatively stable growth in private consumption in the period ahead.

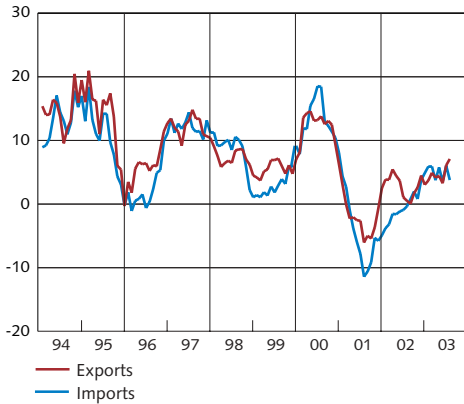
Recently, equity market growth has been unexpectedly vigorous while house prices have continued to rise. Retail sales have also been relatively robust during the autumn. The somewhat higher local government taxes next year will dampen growth in household income during the forecast period. Real disposable income is now expected to increase by just less than 1.5 per cent per year during 2003–2005. On balance, however, against the backdrop of stronger growth in wealth and despite somewhat subdued income growth, there is no reason to change the forecast of household consumption, which implies a fairly stable real increase of approximately 2 per cent per year.

Figure 20. Households' expectations of their own finances, Sweden's economy and unemployment. Net figures



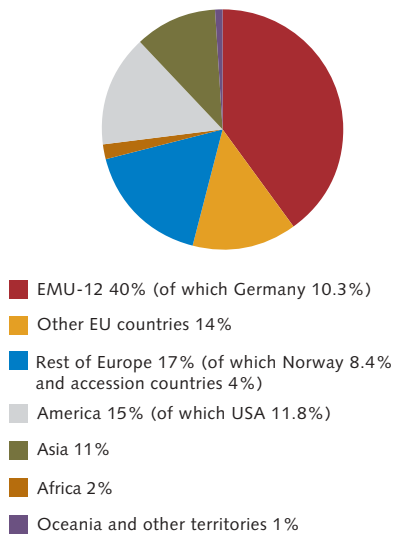
Sources: The National Institute of Economic Research and Statistics Sweden

**Figure 21. Exports and imports of goods.**  
Real terms, smoothed percentage 12-month changes



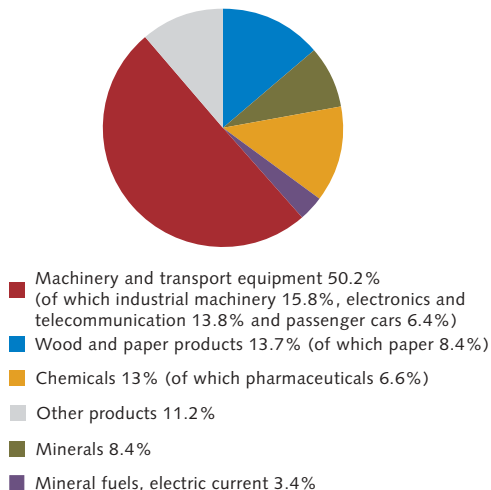
Sources: Statistics Sweden and the Riksbank.

**Figure 22. Swedish exports: country breakdown.**  
Percentage of value in Jan.-Aug. 2003



Source: Statistics Sweden.

**Figure 23. Exports: breakdown of goods.**  
Percentage of value in Jan.-Aug. 2003



Sources: Statistics Sweden.

■ ■ **Growth in exports and imports somewhat higher than expected in 2003.**

According to preliminary monthly data on foreign trade, real exports of goods rose approximately 4.6 per cent during the first three quarters this year compared with the same period last year, while imports increased by 4.3 per cent (see Figure 21). Exports of goods rose relatively sharply in September compared with the same period in 2002. These outcomes indicate that net exports will provide a somewhat higher contribution to GDP growth this year compared with the forecast in the October Inflation Report.

In 2004 and 2005, the exchange rate in TCW terms as well as international export prices are expected to be in line with the forecast in the October Report. This also applies to export market growth for the same period. Thus, the forecast for exports of goods in the years ahead is unchanged.

Imports of goods are now anticipated to increase more this year than in the previous forecast. The upward revision is due to higher than expected imports of goods so far this year and a higher forecast for exports of goods in 2003. The forecast for imports of goods in 2004 and 2005 is unchanged.

Of exports, growth is still strongest in pharmaceuticals and passenger cars. These rose 15 per cent and 23 per cent respectively at current prices from January to August this year compared with the corresponding period last year. On the other hand, exports of wood and paper products declined by 2 per cent during the same period. Of imported goods, the biggest increase was in passenger cars, which rose 25 per cent, followed by energy products, which increased by 22 per cent.

The United States remains Sweden's largest export market, closely followed by Germany (see Figure 22). Exports to the United States were unchanged from January to August compared with the corresponding period last year. Exports to and imports from Germany and the EU rose 3 per cent at current prices during the same period. Meanwhile, exports to the 10 future EU Member States increased by 7 per cent, while imports from the same countries rose 16 per cent. Exports to Asia declined by 7 per cent, although exports to China climbed 22 per cent while imports from the same country increased by 25 per cent.

■ ■ **Pickup in investment expected in 2004.**

Experience indicates that investment is affected late in the business cycle. An analysis of the interaction between GDP components during 1993-2001 suggests that investment lags some two quarters behind GDP growth.<sup>2</sup> As in all slowdowns, it has been difficult to pinpoint the time of the trough. Growth has been weak since the end of 2000 (see Figure 24). Gross fixed capital formation stagnated as early as 2001 and dropped in 2002, although the decline has not been drastic. The forecast for investment has now been revised down somewhat for 2003 on the basis of the investment survey in October, which indicated slightly weaker corporate sector investment this year. There are some indications, however, that

<sup>2</sup> See the box "Perspectives on a recovery" in the Inflation Report 2002:1.

investment will cease falling and that a recovery is imminent. During the first half of the year, the decline in total gross fixed capital formation was 0.6 per cent, compared with the first six months of 2002. According to the outcome up to and including 2003 Q2, there has already been an upturn in corporate sector investment insofar as investment rose in seasonally-adjusted terms during both Q1 and Q2 this year. Real rates of interest are at historically low levels. Equity prices have continued to rise since the publication of the October Inflation Report. Firms have also been reporting increasing profits in their interim reports for Q3, albeit from a low level.

The proportion of manufacturing firms reporting machinery and plant capacity as their primary bottleneck in the business tendency survey is still relatively small (see Figure 25), even if there was a slight increase between Q2 and Q3 this year. Manufacturing firms are fairly optimistic, however, and an increasing proportion of firms expect that they will need to increase production capacity.

Growth in housing investment has remained low despite several factors that indicate an upswing. During the first half of 2003, housing investment rose 1.8 per cent compared with the same period in 2002. House prices in Sweden during Q3 were approximately 8 per cent higher than one year ago, although house-price inflation in the Stockholm area has been subdued. Business tendency data indicate persistently low activity in construction. The housing shortage, the availability of unutilised resources and high house prices should stimulate housing construction. The National Board of Housing, Building and Planning expects an annual increase in the number of new housing construction projects of around 7 per cent per year in the years ahead.

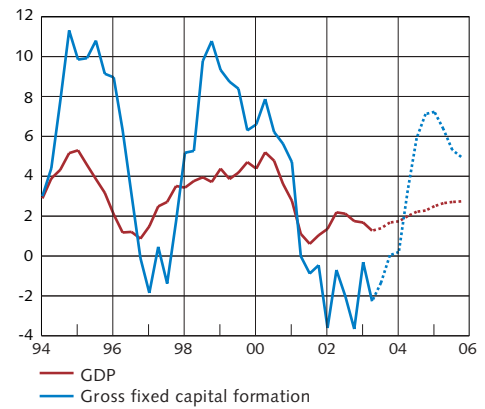
In the October Inflation Report, stockbuilding was forecast to contribute 0.4 percentage points to GDP growth. The business tendency survey points to small changes in manufacturing firms' inventories in Q3. In the consumer goods industry, several firms deem their inventories of finished goods to be too high, and this has also had an impact on the manufacturing industry as a whole. However, unexpectedly robust export growth and indications that manufacturing output will continue to rise modestly, advocate a slight downward revision in the contribution from stockbuilding in 2003.

■ ■ **Moderate resource utilisation during the forecast period.**

The NIER's quarterly business tendency survey for October indicates that resource utilisation in manufacturing was largely unchanged compared with the previous quarterly survey. There is a small shortage of skilled workers and technical employees (see Figure 26). However, Statistics Sweden's survey of capacity utilisation in manufacturing pointed to a continued rise between Q2 and Q3. Resource utilisation in construction appears to have remained low. Computer consultants and other business services report signs of an improvement, but the proportion of computer consultants reporting staff shortages has only increased slightly (see Figure 27).

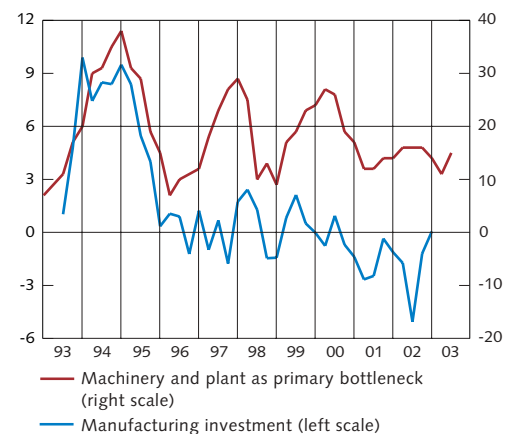
Growth in the main scenario implies continued moderate resource utilisation in the total economy over the next two years.

**Figure 24. GDP and gross fixed capital formation. Annual change, per cent, outcome and forecast**



Note. Broken line represents the Riksbank's forecast.  
Sources: Statistics Sweden and the Riksbank.

**Figure 25. Manufacturing investment and proportion of firms reporting machinery and plant as primary bottleneck. Per cent, smoothed quarterly change**



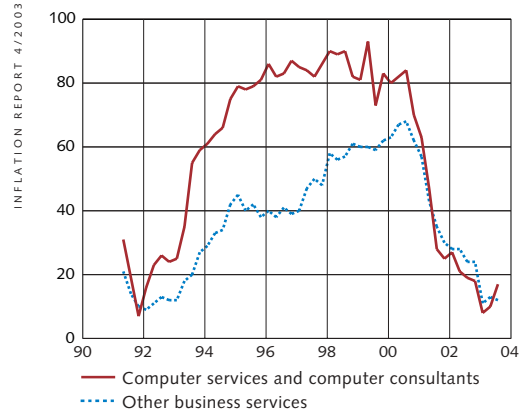
Source: National Institute of Economic Research.

**Figure 26. Labour shortages in manufacturing and construction. Seasonally-adjusted, per cent**



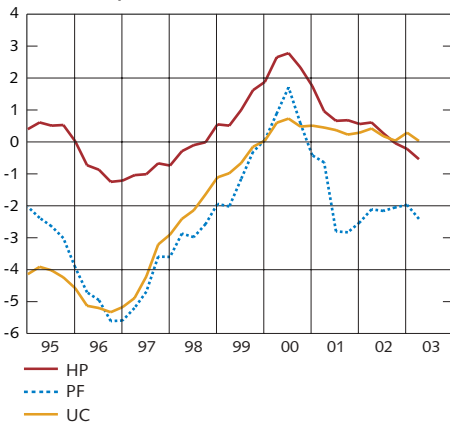
Source: National Institute of Economic Research.

22 **Figure 27. Labour shortages in consultancy sectors.**  
Per cent, seasonally adjusted



Source: National Institute of Economic Research.

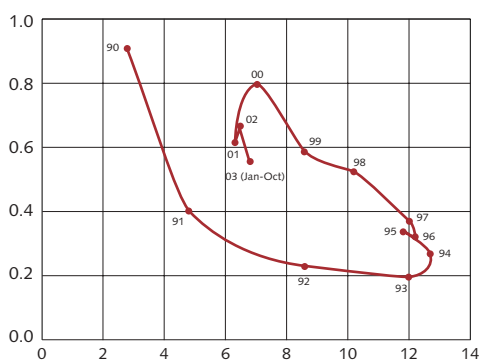
**Figure 28. Econometric estimates of the output gap.**  
Per cent of potential GDP



Note. HP stands for the Hodrick-Prescott (or Whittaker-Henderson) filter. UC is the unobserved components method and PF is the production function approach.

Sources: Statistics Sweden and the Riksbank.

**Figure 29. The Beveridge curve.**  
Per cent



Note. Total unemployment is shown on the horizontal axis and relative vacancies on the vertical axis. Relative vacancy figures indicate unfilled job vacancies as a proportion of the labour force.

Sources: The National Labour Market Board and Statistics Sweden.

■ ■ **Employment begins to rise at the end of 2004.**

The prolonged slowdown has had an impact on the labour market. The deterioration can be illustrated in a Beveridge curve (see Figure 29), which charts the relationship between job vacancies and unemployment. During the years 1997–2001, when labour market conditions improved and unemployment was halved, there was an upward shift along the curve. Last year, labour market conditions became poorer and unemployment began to rise. Initially, however, the number of new job vacancies continued to increase. This increase has now tapered off while unemployment has continued to rise. During January–October this year, the number of new job vacancies fell by just over 5 000 compared with the same period last year. At the same time, the number of discharge notices rose (see Figure 30). The clear decline in the number of new and unfilled job vacancies indicates that employment growth in the year ahead will be weaker than previously forecast.

A rise in corporate sector employment is not expected to begin until the second half of 2004, after which it should grow more vigorously in 2005. Employment growth in the public sector is anticipated to be relatively low in 2004. The budgets of both central and local governments are strained and do not provide scope for any extensive recruitment. In the total economy, employment growth in both 2004 and 2005 is forecast to be weaker than anticipated in the October Inflation Report.

Due to the scaling back of National Labour Market Board training programmes, the inflow of workers to the labour force is still substantial and has contributed to higher unemployment than one year ago. As economic activity picks up, jobseekers are expected to return to the labour market and add further to the labour force. A slight fall in unemployment is not foreseen until towards the end of 2004 (see Figure 32).

In the corporate sector, the number of hours worked has declined more than expected. The drop was 2.1 per cent during the first half of 2003, compared with the first six months last year. According to the labour force surveys, this weakness continued in Q3 as well. Thus, the forecast for the number of hours worked in the corporate sector has been revised down for 2003. In total, the number of hours worked is expected to drop in 2003 in line with the previous forecast. The number of hours worked is forecast to increase again in the following two years, although somewhat slower than assumed in October (see Table 4).

**Table 4. Labour market forecast.**  
Percentage 12-month change

	2002	2003	2004	2005
Labour force	0.1	0.7 (0.5)	0.1 (0.3)	0.3 (0.4)
Employed	0.1	-0.1 (-0.2)	0.1 (0.3)	0.4 (0.6)
Mean working time	-1.3	-0.8 (-0.6)	0.3 (0.3)	0.0 (0.0)
Number of hours worked	-1.2	-0.8 (-0.8)	0.5 (0.6)	0.5 (0.6)
Open unemployment, per cent of labour force	4.0	4.8 (4.6)	4.8 (4.6)	4.6 (4.5)
Labour market programmes, per cent of labour force	2.6	2.1 (2.1)	1.9 (1.9)	1.7 (1.8)

Note. The figures in parentheses are the forecasts in the October Inflation Report. The labour force has been adjusted for labour market training programmes.

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

■ ■ Robust productivity growth in the corporate sector.

Productivity growth in the corporate sector and the total economy improved considerably during the boom year 2000. In 2001, it was very weak but strengthened once again in 2002 and at the beginning of 2003. Thus, there has been a sharp rise in productivity at the same time as economic activity has been lacklustre and resource utilisation in the economy appears to have declined (see Figure 33).

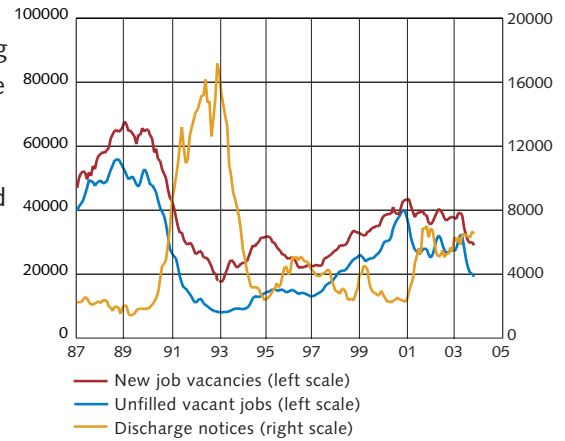
Both in industrial sectors and service sectors, productivity increased markedly during 2002 and the first six months this year. In some business sectors, productivity growth appears to have coincided with robust demand and investment in new technology. The chemical industry (which includes pharmaceuticals) has exhibited strong productivity growth during 2002 and 2003. The sector invested on a large scale at the end of the 1990s and in 2000. One service sector that has managed to increase labour productivity sharply is post and telecom firms. Telecom operators can be assumed to have had spare capacity in their networks following extensive investment. During 2002 and 2003, they have reduced their prices and increased volumes.

The unexpectedly positive developments have justified an upward revision in the forecast for productivity growth in both 2003 and 2004.

■ ■ Weak labour market expected to restrain wages.

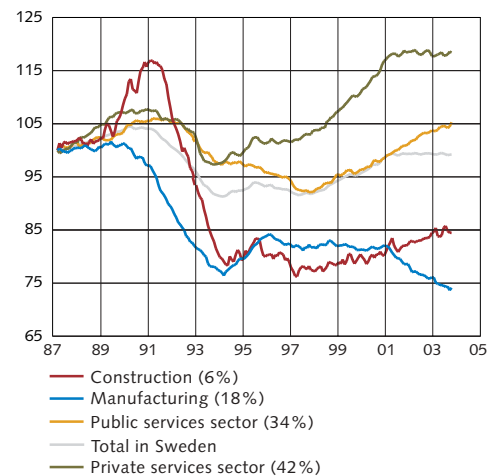
Preliminary economic data show that corporate sector wages rose 2.9 per cent in August compared with the corresponding month last year. This implies that wages in the corporate sector have increased by 3.2 per cent so far in 2003 compared with the same period in 2002. Preliminary wage outcomes in industry so far this year correspond to an average rate of increase of 3.3 per cent, which is almost 1 percentage point lower than the corresponding period last year. Wage inflation in the private services sector has also fallen, and the preliminary outcome for the first eight months of the year is an annual rate of 3.2 per cent. In construction, wage inflation has not slowed to the same extent, despite the lacklustre economic conditions. So far this year, wages in construction have risen 3.7 per cent. In the public sector, wage increases so far this year have averaged 3.1 per cent compared with the corresponding period in 2002. It can be assumed that this figure will be revised up in line with the settlement of local wage agreements in both the central and local government sectors and their subsequent inclusion in the statistics. In all, wages in the total economy have increased by an average rate of 3.2 per cent so far this year. The wage increases so far this year as well as the picture of slacker employment growth provided in this Report points to somewhat lower wage growth than forecast in the October Report. Thus, the weaker labour market is expected to have a restraining effect in the coming wage bargaining round (see also the box "Wage negotiations 2004"). Corporate sector wages are forecast to rise 3.5 per cent in 2004 and 3.6 per cent in 2005, which is a downward revision of 0.1 percentage points for both years.

Figure 30. New and unfilled vacant jobs with a duration of more than 10 days and discharge notices. Seasonally adjusted, three-month moving average



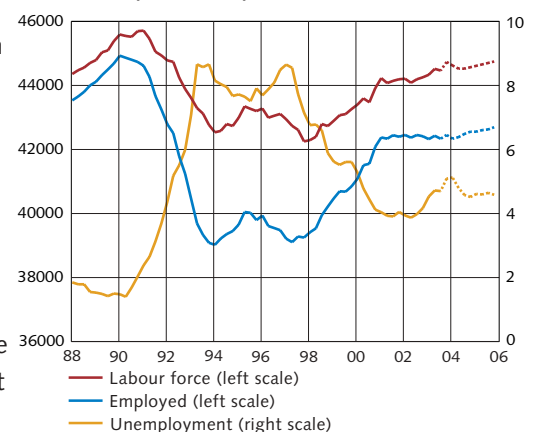
Source: National Labour Market Board.

Figure 31. Number of people in employment in different sectors. Index 1987=100. Seasonally adjusted, three-month moving average



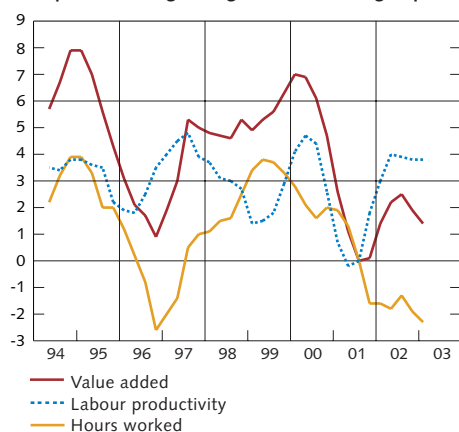
Note. The figures in parentheses are the percentage of the total. Source: Statistics Sweden.

Figure 32. Labour force, employment and open unemployment. 100s of persons and per cent



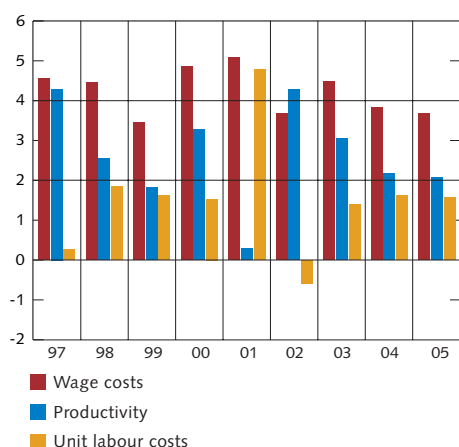
Note. The broken line represents the Riksbank's forecast. Sources: Statistics Sweden and the Riksbank.

**Figure 33. Labour productivity, number of hours worked and value added in the corporate sector. 3-quarter moving average of annual changes, per cent**



Source: Statistics Sweden.

**Diagram 34. Wage costs, productivity and unit labour costs in the corporate sector. Percentage 12-month change, forecast 2003-2005**



Sources: Statistics Sweden and the Riksbank.

As before, other wage costs are judged to rise relatively sharply this year because of higher costs for negotiated pensions and increased employer responsibility for sick pay. These items are expected to contribute 1.1 percentage points to the total rise in wage costs of 4.5 per cent per year (see Table 5).

As a result of slightly higher productivity growth and marginally lower rises in wage costs, unit labour costs are forecast to increase somewhat more slowly during all three forecast years compared with the assessment in the October Inflation Report (see Table 5).

**Table 5. Wages and productivity. Percentage 12-month change**

	2002	2003	2004	2005
Nominal wage, total economy	4.1	3.6 (3.6)	3.7 (3.7)	3.8 (3.9)
Nominal wage, corporate sector	3.9	3.3 (3.4)	3.5 (3.6)	3.6 (3.7)
+ Other wage costs, corporate sector	-0.3	1.1 (1.1)	0.3 (0.3)	0.1 (0.1)
= <b>Total wage costs, corporate sector</b>	<b>3.7</b>	<b>4.5 (4.5)</b>	<b>3.8 (3.9)</b>	<b>3.7 (3.8)</b>
- Labour productivity, corporate sector	4.1	3.1 (2.9)	2.2 (2.1)	2.1 (2.1)
= <b>Unit labour costs, corporate sector</b>	<b>-0.4</b>	<b>1.4 (1.6)</b>	<b>1.6 (1.8)</b>	<b>1.6 (1.7)</b>

Note. The items do not sum up due to rounding.

Sources: Statistics Sweden and the Riksbank.

#### Revised forecasts since the October Inflation Report.

- The forecasts for exports and imports of goods in 2003 have been revised up due to strong outcomes in foreign trade statistics.
- The forecasts for public authority consumption in 2004 and 2005 have been revised down because of a change in the assessment of local government finances.
- The forecast for the stockbuilding contribution to GDP growth in 2003 has been revised down owing to robust export growth and subdued manufacturing output.
- The number of hours worked in the corporate sector is judged to rise slower during the forecast period.
- Employment growth is expected to be somewhat weaker in 2004 and 2005 due in part to a continued high number of discharge notices and few new job vacancies.
- Productivity growth in the corporate sector is forecast to be more robust in both 2003 and 2004.
- Wage increases in the corporate sector are expected to be marginally lower during the forecast period, mainly owing to poorer labour market conditions.
- Unit labour costs in the corporate sector are anticipated to be lower during all three forecast years as a result of both lower wage increases and higher productivity.



## Inflation expectations

The inflation expectations of households and firms are an important part of the Riksbank's analysis of economic developments, as they affect price and wage formation and thereby also inflation. Inflation expectations are influenced by a number of different factors, perhaps mainly the actual inflation rate but also by the level of the repo rate and the Riksbank's signalling of future monetary policy.

Households estimated October inflation to be 1.7 per cent. They expected a gentle rise to 1.8 per cent one year ahead (see Figure 35). Thus, households foresee a more modest rise in prices than in September, when inflation was anticipated to increase to 2.2 per cent one year ahead.

The October business tendency survey of the National Institute of Economic Research (NIER) showed that firms' expectations of inflation one year ahead remain low. Expectations have been revised up slightly, however, from 0.9 per cent to 1.2 per cent since the previous survey in July. The low expectations of firms coincide with developments in the manufacturing industry's sales prices in the domestic market, which have also been weak recently (see Figure 36).

Prospera's latest survey in November points to small changes in both the short and long term, compared with its October survey (see Table 6). The survey participants now expect inflation to average 2.2 per cent one year ahead and 2.4 per cent two and five years ahead. Employee organisations have revised down their expectations somewhat over all time horizons, while purchasing managers in both trade and manufacturing have instead revised up their expectations.

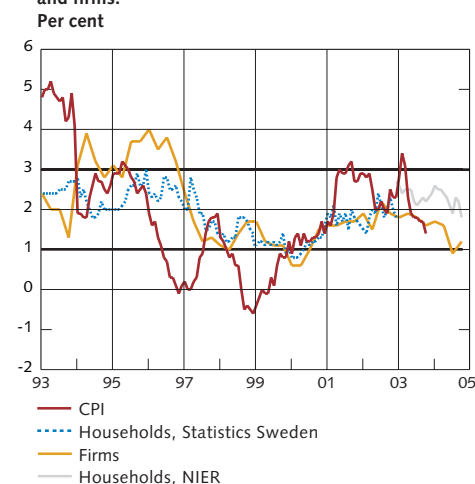
**Table 6. Inflation expectations according to Prospera's survey in November 2003, unless otherwise specified.**

1 year ahead		
Money market agents	1.8	(0.0)
Employer organisations	2.1	(-0.1)
Employee organisations	2.0	(-0.1)
Purchasing managers, trade	2.4	(0.1)
Purchasing managers, manufacturing	2.5	(0.1)
Households (HIP) in October (September)	1.8	(-0.4)
Firms (business tendency survey) in October (July)	1.2	(0.3)
2 years ahead		
Money market agents	2.1	(0.1)
Employer organisations	2.2	(-0.1)
Employee organisations	2.1	(-0.1)
Purchasing managers, trade	2.4	(0.1)
Purchasing managers, manufacturing	2.6	(0.1)
5 years ahead		
Money market agents	2.1	(0.0)
Employer organisations	2.2	(0.1)
Employee organisations	2.2	(-0.1)
Purchasing managers, trade	2.5	(0.2)
Purchasing managers, manufacturing	2.6	(0.1)

Note. The figures in parentheses are the change in percentage points from the previous survey in October 2003, unless otherwise specified.

Sources: National Institute of Economic Research and Prospera Research AB.

**Figure 35. CPI and inflation expectations of households and firms.**



Note. The curves for inflation expectations have been displaced 12 months ahead to coincide with the CPI outcomes to which the expectations refer. The procedure for surveying households' purchasing plans was changed in January 2002.

Sources: The National Institute of Economic Research and Statistics Sweden

**Figure 36. Firms' inflation expectations one year ahead and manufacturing industry's sales prices in the domestic market.**



Note. The curves for inflation expectations have been displaced 12 months ahead.

Source: National Institute of Economic Research.

## Recent developments in inflation

Since the October Inflation Report, inflation has fallen in line with the Riksbank's forecast. CPI and UND1X inflation stood at 1.4 per cent and 1.9 per cent respectively in October. Energy prices have been unexpectedly high, however, while other inflation has been somewhat lower than anticipated. CPI inflation is presently lower than UND1X inflation owing to the Riksbank's

interest rate cuts of 1.5 percentage points in total over the past year, which have entailed lower interest expenditure for households. This curtails CPI inflation in the short term but not UND1X inflation.

### Unexpectedly high energy prices.

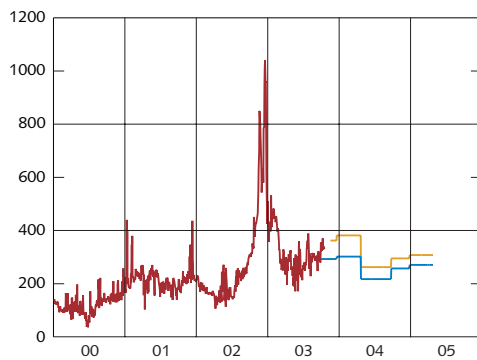
Steep increases in electricity prices last winter have contributed to high inflation during the year. Moreover, since the October Inflation Report, spot and forward prices on the Nordic electricity exchange, Nord Pool, have risen sharply. Pricing in the forward market is now suggesting that electricity prices on Nord Pool will be just over 25 per cent higher during the autumn and winter than was expected at the time of the October Inflation Report (see Figure B1). This is most likely due to the fact that water levels in Swedish reservoirs have again begun to decline (see Figure B2). Furthermore, consumer electricity prices have edged up since the October Inflation Report. Consumer prices are stickier, however, than those on Nord Pool (see the box "The price of electricity and inflation" in Inflation Report 2003:1). Moreover, consumer prices are affected by grid tariffs and taxes.

The price of crude oil has remained high since the previous Inflation Report, reaching just over USD 29 per barrel in October. This was a good USD 1 higher than expected. Mounting demand, political unease in oil-producing countries such as Iraq and Nigeria, and speculation that OPEC is to scale back production are important explanations for the high price.

### Inflation excluding energy prices unexpectedly low.

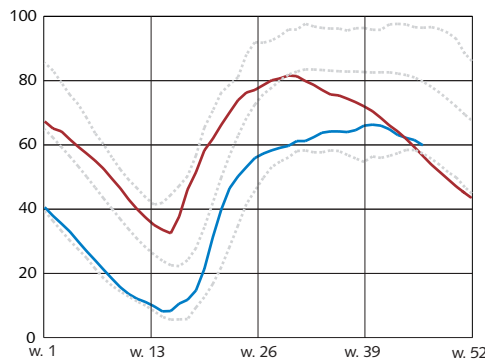
UND1X inflation excluding energy prices has been lower than anticipated during the year (see Figure B3). This is partly attributable to unexpectedly weak imported inflation. The difference between forecast and outcome was most likely due in part to larger than expected pass-through from the krona appreciation. Excluding oil, prices of imported goods have fallen on average in the past six months. This has also been the case for producer prices (see Figure B5). The appreciation of the krona in the past year as well as largely unchanged international export prices of higher valued-added goods are significant reasons for this. The measures of imported inflation also include a substantial proportion of domestic value added, notably distribution costs. Thus, the

Figure B1. Electricity: spot and forward prices on Nord Pool. SEK/MWh



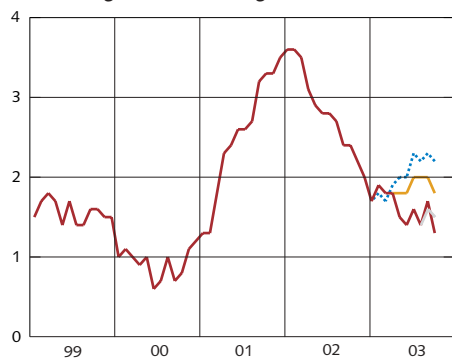
— Electricity spot  
— Forward 25-09-2003  
— Forward 18-11-2003  
Sources: Nord Pool and the Riksbank.

Figure B2. Weekly water levels in Swedish reservoirs. Per cent of capacity (100%=33758 GWh)



— 2002  
— 2003  
- - - Max  
- - - Mean  
- - - Min  
Note. Min, mean and max refer to values for the period 1950-2001.  
Source: Svensk Energi.

Figure B3. UND1X excluding energy. Outcomes and forecasts. Percentage 12-month change



— UND1X excluding energy  
- - - Forecast Inflation Report 2003:1  
— Forecast Inflation Report 2003:2  
— Forecast Inflation Report 2003:3  
Sources: Statistics Sweden and the Riksbank.

slow rise in unit labour costs is also of significance.

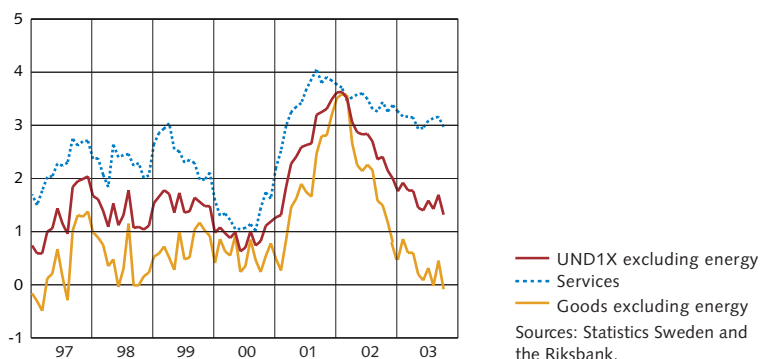
Domestic inflation excluding electricity has also been weaker than forecast in 2003, standing at 2.4 per cent in October. This is probably related in part to apparently stronger productivity growth than anticipated during the year, which has resulted in an unexpectedly low rate of increase in unit labour costs. Services prices are still rising quickly, even if the rate has diminished somewhat over the past year. The rate of price increases has been accelerating, however, for administratively priced services, such as various local government charges. The rate currently stands at just below 5 per cent. One significant reason for the rising local government charges is probably that local governments are compensating themselves for their strained financial situation by raising various charges, such as those on refuse collection (see Figure B6).

#### *Underlying inflation falling*

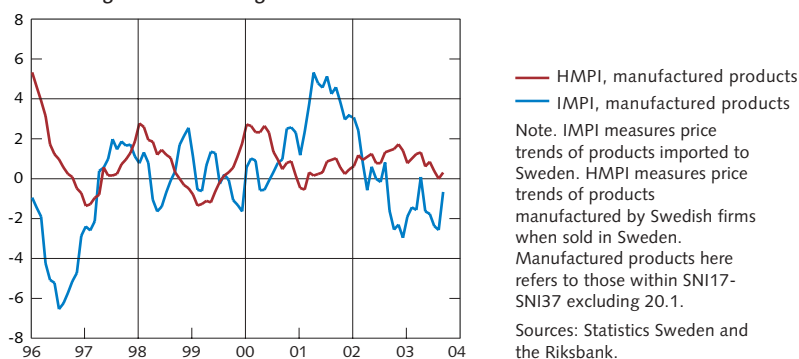
In order to analyse prospective inflation in the long term, the Riksbank looks at measures of underlying inflation. However, these measures are not unambiguous and can be calculated in different ways. One common method is to exclude certain components from CPI inflation that are deemed to last for only a very short period. The idea here is to attempt to discern the cyclical rate of inflation. UND1X is arrived at by excluding households' mortgage interest expenditure and the direct effects of changes in indirect taxes and subsidies from CPI inflation. Presently, however, it is also important to analyse inflation excluding the effects of the currently sharp fluctuations in energy prices. This is because the fluctuations have been caused by mainly temporary supply shocks. Excluding energy prices, annual CPI inflation stood at 0.6 per cent in October. The corresponding figure for UND1X was 1.3 per cent. Another way of measuring underlying inflation is to make use of statistical methods to exclude or lessen the significance of groups of goods and services whose prices have previously exhibited sharp fluctuations. Two such measures are shown in Figure B7, together with CPI and UND1X inflation adjusted for energy prices.

All the measures of underlying inflation in Figure B7 point to falling inflation since spring 2002 and an annual inflation rate in October that is clearly below 2 per cent.

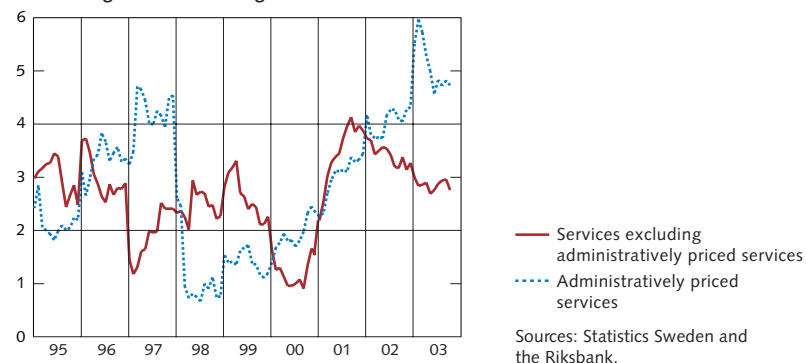
**Figure B4. UND1X excluding energy prices: breakdown of goods and services. Percentage 12-month change**



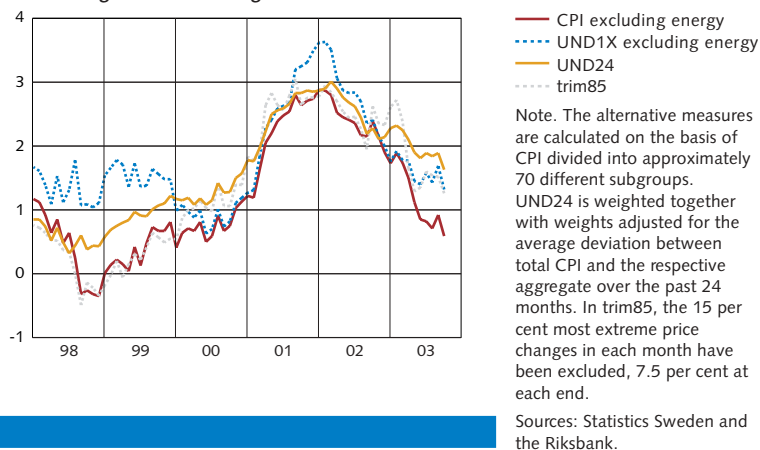
**Figure B5. Manufactured products in the producer channel: domestic market prices and import prices. Percentage 12-month change**



**Figure B6. Services prices. Percentage 12-month change**



**Figure B7. Different measures of underlying inflation. Percentage 12-month change**





## ■ Inflation assessment

*The general assessment of inflation prospects up to the end of 2005 Q4 is presented in this chapter, given the technical assumption that the repo rate is held unchanged at 2.75 per cent. The chapter begins with an account of the Riksbank's view of the recently high energy prices. This is followed by a description of what is assessed to be the most likely path for inflation over the coming two years. Finally, the chapter concludes with a discussion of the uncertainty and risks inherent in this assessment.*

### Energy prices and different measures of inflation

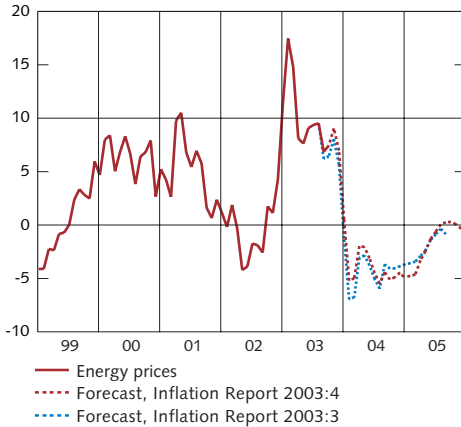
Inflation in the past year has been affected considerably by fluctuations in energy prices. Both UND1X and CPI inflation rose from just over 2 per cent at the end of last year to just below 3.5 per cent in February 2003. Subsequently, inflation fell back to under 2 per cent, partly due to a drop in energy prices in spring and summer. Nevertheless, inflation has exceeded the Riksbank's target for most of the past year. Excluding energy prices, however, inflation during the year has been a little less than one percentage point below target (see also the box "Recent developments in inflation").

The Riksbank's assessment so far is that the rise in energy prices that has helped to push up inflation is essentially temporary. This is indicated by the fact that the increase in energy prices has mainly been due to rises in electricity prices caused by weather-related supply problems in hydroelectric power stations. But there has also been a trend of rising energy prices from the unusually low levels at the end of the 1990s. So far, the contagion effects have nevertheless been judged to be relatively limited, which suggests that the higher electricity prices are partly viewed as temporary by firms as well. The inflation expectations of firms have also remained at a low level (see Figure 36). Against this background, the Riksbank has decided to attach greatest importance to inflation excluding energy prices in its assessment of underlying cyclical inflationary pressures and in its conduct of monetary policy. In the October Inflation Report, it was judged that this measure of inflation would rise slowly and stand at around 2 per cent during the latter part of the forecast period. The Riksbank therefore decided to leave its key interest rate unchanged on this occasion.

The fact that the Riksbank so far this year has chosen to exclude energy prices in its conduct of monetary policy does not mean that these will automatically continue to be excluded from assessments of more underlying, demand-driven inflationary pressures. The question of which price effects are transient in nature varies over time and must be considered from case to case.<sup>3</sup>

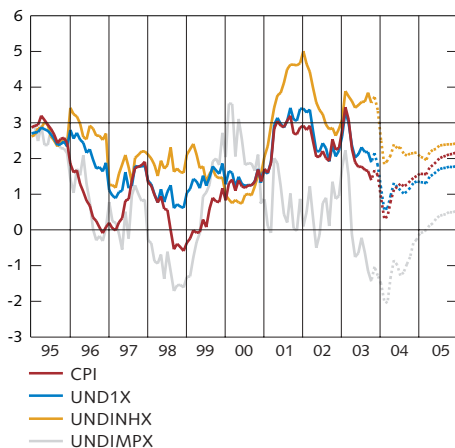
<sup>3</sup> See Heikensten, L., "The Riksbank's inflation target – clarifications and evaluation", Sveriges Riksbank Quarterly Review 1, 1999, and the box "The Riksbank's monetary policy – target and indicators" in the Inflation Report 2003:3.

**Figure 37. Energy prices excluding tax. Percentage 12-month change**



Sources: Statistics Sweden and the Riksbank.

**Figure 38. Different measures of inflation. Outcomes and forecasts in the main scenario. Percentage 12-month change**



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

Sources: Statistics Sweden and the Riksbank.

## Inflation prospects in the main scenario

### ■ ■ Energy prices somewhat higher in the short term.

Spot and forward prices on the Nordic electricity exchange, Nord Pool, have begun to rise again during the autumn. The forecast for electricity prices has therefore had to be revised up slightly again in the short term. However, electricity prices are still expected to decline next spring and summer in line with a replenishment of reservoirs. The price of crude oil has also been unexpectedly high since the October Report. Nevertheless, the price of oil is still judged to fall during the forecast period as a result of an increase in supply. Thus, in all, consumer energy prices are anticipated to be somewhat higher in the quarters ahead but are then expected to unwind and contribute to low inflation next year (see Figure 37).

### ■ ■ Gently rising imported inflation.

Unlike energy prices, one factor that has contributed to alleviating inflationary pressures is the exchange rate. In the past two years, the krona has strengthened in terms of the TCW index and is anticipated to appreciate somewhat more in the period ahead. The strengthening of the krona and falling oil prices are expected to result in a continued decline in import prices in the year ahead. At the end of the forecast period, the krona is forecast to strengthen only marginally while increases in international export prices are anticipated to gather pace. Thus, prices of imported goods are expected to begin to rise gently towards the end of the forecast period (see Figure 38). Compared with the forecast in the October Inflation Report, import prices are now expected to fall somewhat more in the year ahead (see Table 8). The downward revision is partly explained by a sharper than expected decline in import prices recently, which may be due to larger pass-through from the stronger krona to prices than previously assumed.

### ■ ■ Weak domestic price pressures but high rent demands.

Most factors indicate that energy prices will fall back steadily to more normal levels and that contagion effects will be rather small. But the situation is far from clear-cut and needs to be monitored closely. If energy prices do not drop as expected in the period ahead, it cannot be ruled out that the increases in energy prices will result in elevated prices in other areas as well. For example, tendencies towards contagion effects can currently be observed in the market for rental apartments. Rents comprise some 14 per cent of CPI and are therefore a significant component of the inflation assessment.<sup>4</sup> Rent negotiations for 2004 have been initiated and municipal housing companies are demanding rent hikes of just over 4.5 per cent. This is almost 1 percentage point more than the demands ahead of the 2003

<sup>4</sup> Apartment rents have a weighting of approximately 10 per cent in CPI but as Statistics Sweden also assumes that the cost of living in tenant-owned apartments (weighting of approx. 4 per cent) tracks the index for apartment rents, the total weighting in CPI is around 14 per cent.

negotiations. Principal reasons for the high demands are said to be rising charges and increasing electricity costs. The rent index in CPI is therefore expected to increase more over the coming two years than was forecast in the October Inflation Report.

Otherwise, domestic price pressures are expected to rise only marginally during the forecast period in line with slightly higher resource utilisation. In comparison with the October Inflation Report, there have only been minor changes in the assessment of the real economy. However, indicators are suggesting that employment growth will be weaker than in previous forecasts. Thus, the forecast for corporate sector wage inflation has been revised down slightly. At the same time, productivity growth is anticipated to be somewhat more favourable which, together with the lower wage increases, implies a slower rise in wage costs per hour worked.

In all, higher rents and electricity prices are expected to result in somewhat higher domestic inflation next year compared with the forecast in the October Inflation Report (see Figure 39). The higher rents and electricity prices are only partly countered by lower wage costs. However, the forecast for domestic inflation towards the end of the forecast period is unchanged. In 2005, domestic prices are expected to rise 2.3 per cent on average, which is appreciably higher than for import prices (see Table 8 and Figure 38).

#### ■ ■ CPI inflation higher than UND1X inflation.

The proposal in the Budget Bill to raise energy taxes as part of the green tax shift is forecast to increase CPI inflation by some 0.1 percentage points next year. In 2005, the tax shift is assumed to continue, thus raising CPI inflation by 0.2 percentage points. In the short term, however, CPI inflation is expected to be lower than UND1X inflation due to lower interest expenditure for households (see Figure 40 and Table 7). Towards the end of the forecast period, rising mortgage rates are anticipated to lead to an increase in households' interest expenditure. This in turn contributes to higher CPI inflation. Thus, CPI inflation is forecast to be higher than UND1X inflation in 2005.

**Table 7. Change in CPI compared with UND1X.**  
Percentage 12-month change and percentage points

	Dec 03	Dec 04	Dec 05
UND1X	1.8 (2.0)	1.4 (1.4)	1.8
+ Effects of changes in mortgage interest expenditure	-0.6 (-0.6)	0.1 (0.1)	0.2
+ Direct effects of changes in indirect taxes and subsidies	0.4 (0.3)	0.1 (0.1)	0.2
= CPI	1.5 (1.7)	1.5 (1.5)	2.2

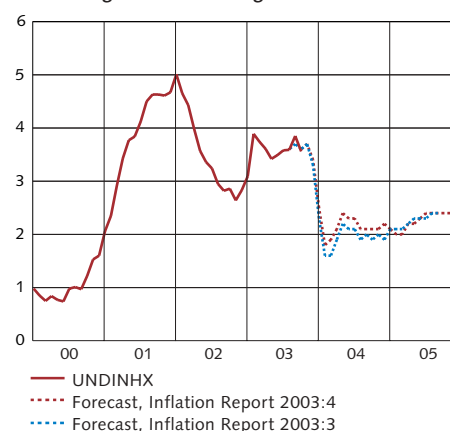
Note. The figures in parentheses are the assessments in the October Inflation Report.

Source: The Riksbank.

#### ■ ■ Inflation forecast only marginally changed.

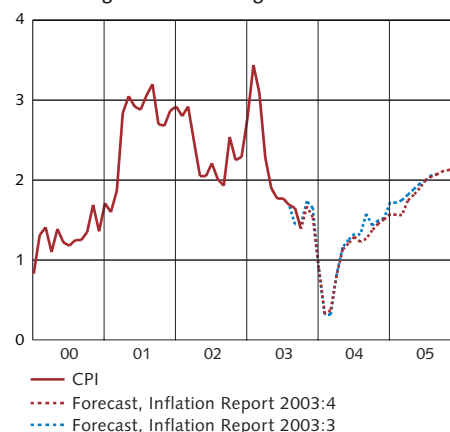
The assessment, therefore, is that CPI and UND1X inflation will continue to fall initially as a result of energy prices returning to more

**Figure 39. Domestic inflation. Outcomes and forecasts in the main scenario.**  
Percentage 12-month change



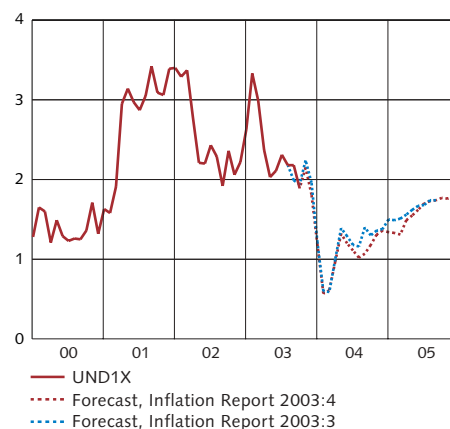
Sources: Statistics Sweden and the Riksbank.

**Figure 40. CPI inflation. Outcomes and forecasts in the main scenario.**  
Percentage 12-month change



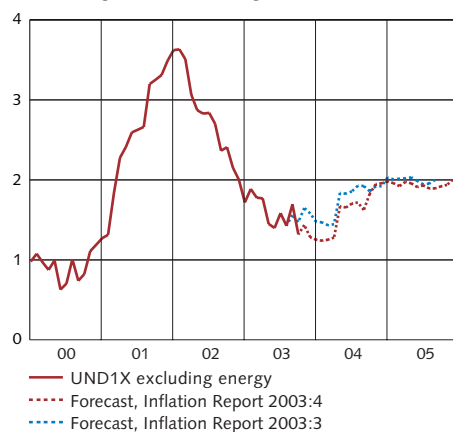
Sources: Statistics Sweden and the Riksbank.

**Figure 41. UND1X inflation. Outcomes and forecasts in the main scenario.**  
Percentage 12-month change



Sources: Statistics Sweden and the Riksbank.

**Figure 42. UND1X excluding energy. Outcomes and forecasts in the main scenario. Percentage 12-month change**



Sources: Statistics Sweden and the Riksbank.

normal levels (see Figures 40 and 41). Thereafter, inflation will rise again, also partly due to developments in energy prices. A slight rebound in import prices will also provide impetus in this regard. However, domestic cost pressures will contribute only marginally to the increase in inflation. In all, CPI inflation in the main scenario is foreseen at 1.5 per cent one year ahead and 2.2 per cent two years ahead (see Table 8). The corresponding figures for UND1X inflation are 1.4 per cent and 1.8 per cent, respectively. Excluding energy prices, both CPI and UND1X inflation are expected to be around 2 per cent, both one and two years ahead. Compared with the assessment in the October Inflation Report, the forecasts for CPI and UND1X inflation are largely unchanged (see Table 8). In the year ahead, inflation is expected to be somewhat lower. This is because lower imported inflation is not countered fully by the higher domestic inflation (see Figure 42).

#### Revised forecasts since the October Inflation Report.

- Imported inflation is expected to be lower in the year ahead, due to weak outcomes and lower unit labour costs.
- In the short term, the price of electricity is not expected to decline as much as in previous forecasts.
- Rents are forecast to rise more in the coming two years. Domestic inflation is expected to be somewhat higher in 2004 as a result of higher rents and electricity prices.
- The forecasts for both CPI and UND1X inflation are largely unchanged, both including and excluding energy prices.

**Table 8. Inflation forecasts in the main scenario. Percentage 12-month change**

	12-month average			12-month figures		
	2003	2004	2005	Dec 2004	Sept 2005	Dec 2005
CPI	2.1 (2.1)	1.1 (1.1)	1.9	1.5 (1.5)	2.1 (2.1)	2.2
UND1X	2.3 (2.3)	1.1 (1.2)	1.6	1.4 (1.4)	1.7 (1.7)	1.8
UNDINHx	3.6 (3.6)	2.2 (2.0)	2.3	2.2 (1.9)	2.4 (2.4)	2.4
UNDIMPX	-0.1 (-0.1)	-1.1 (-0.5)	0.3	-0.3 (0.3)	0.4 (0.4)	0.5
UND1X excluding energy	1.6 (1.6)	1.6 (1.7)	1.9	2.0 (1.9)	1.9 (2.0)	2.0
CPI excluding energy	1.1	1.4	2.1	2.0	2.1	2.2

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

Sources: Statistics Sweden and the Riksbank.



## Wage negotiations 2004

Next year the collective wage agreements for the greater part of the private sector, and for the whole of the central government sector, will expire. Wage developments have decisive significance for developments in costs and prices in the economy as a whole. The assessment of future developments in wages thus forms a central part of the Riksbank's analysis of inflation prospects.

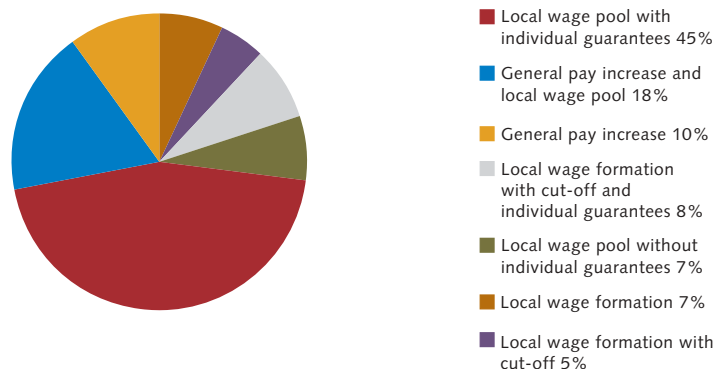
### *Industrial Agreement advent of new wage formation era*

The two most recent rounds of wage negotiations, in 1998 and 2001, were coloured by a large degree of cooperation between the social partners. The Industrial Agreement signed in March 1997 by all of the organisations within the industrial sector was an expression of this cooperation. The background to the emergence of this agreement was the failure of the wage negotiations in 1995, which were dominated by demands for compensation and high average wage increases. Wages in the economy as a whole rose by an average of almost 5 per cent a year during the period 1995-1997, while the unemployment rate was high.

The Industrial Agreement contained an agreement between the social partners in the industrial sector regarding joint principles for wage formation and forms for conducting wage negotiations. The aim is to be able to draw up new collective wage agreements before the prevailing ones expire. The competitive sector shall set the standards for other collective agreement areas through signing agreements at an early stage and acting as a benchmark. The Industrial Agreement now has imitators in other areas of the labour market and almost half of all wage-earners are now covered by some form of agreement regarding cooperation or negotiating processes. There is currently broad agreement in the labour market regarding the competitive sector's role in setting standards with regard to wages.

The Industrial Agreement was first applied during the 1998 wage negotiations. The industrial sector was the first to sign a three-year agreement, which then acted as a benchmark for other groups in the labour market. Wage increases throughout the economy as a whole were approximately 3.5 per cent a year for the agreement period 1998-2000, which was significantly lower than in the previous round of negotiations.

Figure B8. Agreement construction in the private sector



At the same time as there has been increased cooperation on a sector level (trade union level), local wage formation has taken on a greater role, particularly with regard to white-collar workers. Today, one-fifth of the private sector applies local wage formation (see Figure B8). The most common form of agreement in the private sector is a trade union agreement with a wage pool that is distributed in the local negotiations, and supplemented with some form of individual guarantee. This applies to around half of all employees. One in three employees in the public sector currently has a completely figureless agreement, that is, both the wage scope and distribution is determined entirely in local negotiations. These institutional changes in recent years have made it more difficult to divide wage increases into the part that is agreed and other parts.<sup>5</sup>

Source: The National Mediation Office.

#### Various ways of measuring wage development:

**Monthly short-term wage statistics:** The wage concept is wages for hours worked plus some variable and fixed supplements.

**Monthly labour cost index (AKI):** Based on short-term wage statistics but also includes wages for hours not worked and agreed and statutory employers' contributions.

**Annual wage structure statistics:** An annual, individually-based survey aimed at illustrating wage structure in the labour market. The statistics sources above are included in official wage statistics.

**Wage sums in National Accounts:** These include all taxable incomes. A measure of total labour costs is obtained by adding collective charges and indirect wage taxes. This source of statistics is not included in the official wage statistics, however.

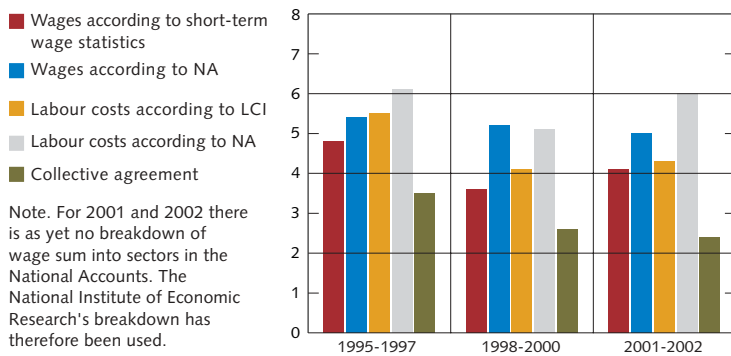
Sources: The National Mediation Office and Statistics Sweden.

<sup>5</sup> Note that agreed wage increases are calculated as an average including all types of trade union agreement, even those not specifying a wage 'pool' or those that are entirely figureless. For further discussion, see Uddén Sonnégård, E., "Is wage drift a problem?" Sveriges Riksbank Economic Review 2003:4.

### Outcome of wage negotiations 2001

The wage negotiations in 2001 also saw the industrial sector leading the way, signing a three-year agreement at 2.7 per cent a year, with 0.3 percentage points of this expressed in shorter working hours. The Swedish Trade Union Confederation (LO) had agreed on a joint platform of prioritising low-wage earners prior to the negotiating round. The Commercial Employees' Union and the Municipal Workers' Union, which were among the last to negotiate wage increases during this negotiating round, signed an agreement that was 1 percentage point higher than the agreements in the industrial sector. The agreed wage increases for both the business sector and the economy as a whole were on average 2.4 per cent a year according to the official wage statistics.

**Figure B9. Wages and labour costs in the business sector**  
Percentage 12-month change

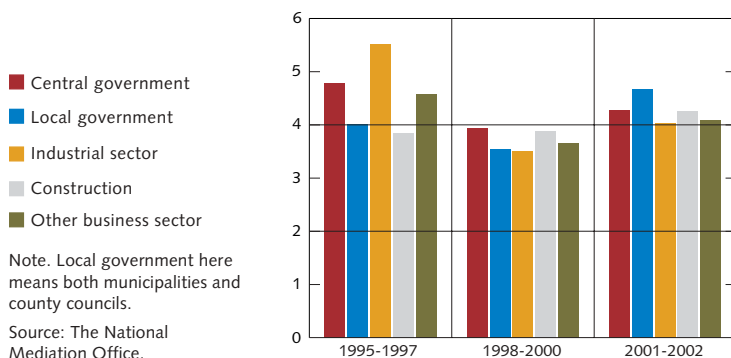


Note. For 2001 and 2002 there is as yet no breakdown of wage sum into sectors in the National Accounts. The National Institute of Economic Research's breakdown has therefore been used.

Sources: The National Institute of Economic Research, the National Mediation Office, Statistics Sweden and the Riksbank.

There are several different ways of measuring wage developments and the results differ, depending on which wage concept is used.<sup>2</sup> Short-term wage statistics and wage structure statistics are preferable for gaining an insight into wage developments. The relevant

**Figure B10. Wage development according to short-term wage statistics**  
Percentage 12-month change



Note. Local government here means both municipalities and county councils.

Source: The National Mediation Office.

factor in the Riksbank's assessment of inflation prospects is the development of total labour costs. These can be obtained from the labour costs index (*arbetskraftsindex, AKI*) or by dividing wage sum in the National Accounts by the number of hours worked according to the National Accounts. Common to all of the calculations is that wages in the business sector appear to have increased somewhat faster during the period 2001-2002 than during the period 1998-2001. However, the rate of wage increase has been slower than in the 1995 negotiating round, when coordination failed.

According to short-term wage statistics, wages in the business sector have increased by an average of approximately 4 per cent a year during the period 2001-2002 (see Figure B9). This can be compared with labour costs according to wage sums in the National Accounts showing an average increase of around 6 per cent a year during the same period. The fact that wage sum figures in the National Accounts indicate a more rapid rate of wage increase than short-term wage statistics is because this measure is broader and covers statutory and centrally-agreed employers' contributions, as well as various types of taxable benefits. Preliminary results for short-term wage statistics for the period January-August this year indicate an average rate of wage increase of 3.2 per cent. However, this figure is expected to rise slightly as more local agreements are signed. This means that the rate of wage increases has been subdued by almost 1 percentage point compared with the period 2001-2002.

Wages have increased more rapidly in the public sector than in both the industrial sector and other parts of the business sector in recent years (see Figure B10). Seen in a longer-term perspective, however, wage increases in the public sector – according to the short-term wage statistics – have been tangibly lower than in the business sector (see Figure B11). Although this should be viewed in the light of the comprehensive changes to the structures and labour force composition in both the private and public sectors.

### Agreements for around 550,000 employees renegotiated so far

This year around 30 sectoral wage agreements have been renegotiated. These cover approximately 100,000 employees in the private sector and around 450,000 in the local government sector. They cover agreement areas

2 See the Box "Wage statistics and the status of agreements in spring 2002" in Inflation Report 2002:2 as well as the Box "Wages and statistics" in the National Institute of Economic Research's Wage Formation report 2003.

outside of the industrial sector. Two-year agreements expiring on 31 December 2004 or during the first half of 2005 have been the most common. The agreed wage increases for 2003 in the private sector have been at between 3.5 and 4.5 per cent, amounting to an average of around 4 per cent. For 2004 the agreed wage increases amount to between 2.5 and 3.1 per cent, on average approximately 3 per cent. The Municipal Workers' Union terminated its central agreement early last year and signed a new, two-year agreement for employees in local government applying from 1 July this year. The agreement entails agreed wage increases of a minimum of 3.95 per cent for the first year of the agreement and a minimum of 2.45 per cent for the second year. The agreement expires in March 2005. This means that the Municipal Workers' Union will renegotiate its agreement at the same time as other groups in the local government sector.

#### *Majority of agreements expire in March and April 2004*

In total, approximately 1.7-1.8 million employees will be affected by the negotiations on new collective wage agreements next year. In addition, there is a large group of employees who are affected through what are known as local collective agreements. A majority of private sector employees are covered by these and all employees in the central government sector. The first to enter the negotiating round will be the banking sector, whose agreement expires on 31 December this year. The agreements for most of the private sector employees (around 70 per cent) will expire on 31 March or 30 April 2004 (see Figure B12). This applies to the export industry and the commercial sector. Agreements in the central government area will expire almost six months after the majority of the private sector agreements.

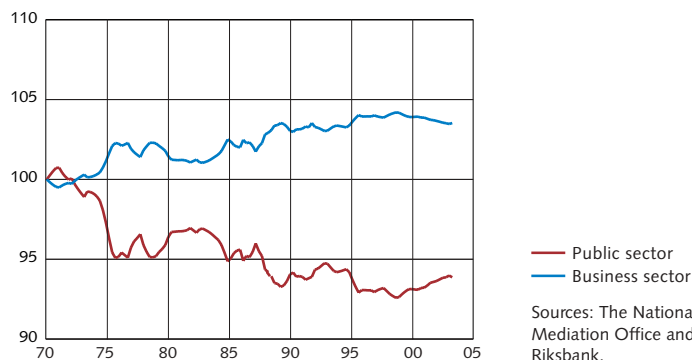
The negotiations for the banking sector will begin in mid-November. The agreements on negotiating processes for the industrial sector, the commercial sector and the central government sector state that negotiations shall begin three months before the existing agreements expire. This means that negotiations with regard to agreements expiring on 31 March can be assumed to start in the new year. In December the trade unions in the engineering industry will present specific agreement requirements to the employers.

#### *Concentration on low-wage earners*

The Swedish Trade Union Confederation has agreed on a framework for wage increases that

**Figure B11. Development of hourly wages in the public sector and industrial sector in relation to average wage developments in the economy as a whole.**

Index, average hourly wage development in entire economy = 100



— Public sector  
— Business sector

Sources: The National Mediation Office and the Riksbank.

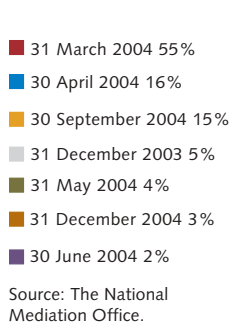
shall act as a guideline in the individual trade union negotiations. The requirements have a clear low-wage earner profile. The Confederation requires wage increases of at least SEK 650 a month on average for the agreement area, with a minimum of 3.2 per cent. Each individual is guaranteed SEK 350 of this total, while the rest can be distributed in local negotiations. When converted into percentages, the Confederation claims that wage demands will be in the interval of 3.2 to 4.2 per cent and that the wage scope for its trade unions will be an average of approximately 3.5 per cent. This means that unions with high average wages must be prepared to hold back their demands to allow areas with low-wage earners to obtain higher wage increases. The trade unions in the industrial sector have largely agreed to the demands expressed by the Confederation. The difference is that the industrial sector wants to continue to shorten working hours in this negotiating round, which is estimated to cost approximately 0.5 percentage points and would put the scope for wage increases at 2.7 per cent. Giving priority to low-wage earners is also supported by the white-collar workers, unions SIF and the Swedish Association of Graduate Engineers. However, the employers are critical of the demands made so far and do not wish to tie up a large share of the wage increase scope in trade union agreements. They consider that giving priority to low-wage earners risks pushing up labour costs throughout the business sector.

#### *Tensions in wage formation*

The social partners have differing views on what should be included when establishing the scope for wage cost increases. This is partly connected to the government's decision to allow employers to pay for the third week of sick leave with effect from 1 July this year, as well as the ever

increasing costs for white-collar workers' pensions. The Swedish Trade Union Confederation and the trade unions in the industrial sector consider that only costs negotiated by the parties themselves should be included in the established scope. However, the employers want all costs to be included. The decisive factor from an inflation point of view is unit labour costs, where employers' total cost increases for labour are put in relation to productivity growth. During 2004 the government plans to introduce further changes in sickness insurance with the aim of increasing motivation to reduce ill-health.

Figure B12. Expiry dates of agreements.



Three-year agreements have been the most common in the recent negotiating round. Uncertainty over the future formation of sickness insurance could mean that the social partners choose to sign shorter agreements.

In recent years, certain tensions have built up in wage formation, for instance, because white-collar workers have had a more rapid wage

Figure B13. Wage developments in industrial sector according to short-term wage statistics. Percentage 12-month change



development than blue-collar workers. According to short-term wage statistics, white-collar workers' wages in the business sector have

increased 0.5 percentage points faster than blue-collar workers' wages during the period January 2001 to August 2003. The differences have been even more tangible in the industrial sector. Here, white-collar workers have had an average rate of wage increase approximately 1.5 percentage points higher than blue-collar workers in recent years (see Figure B13). However, in recent months these differences have declined. The trade unions in the industrial sector have made a survey of these wage differences and found that a larger percentage of white-collar workers than blue-collar workers have received wage increases in excess of 10 per cent.<sup>7</sup> Their assessment is that market forces have had greater significance for white-collar workers' wage development.

#### *Demands exceed what is considered appropriate*

The National Institute of Economic Research (NIER) has been commissioned by the government to publish an annual report on the economic conditions for wage formation. The Institute's assessment in this year's report is that the most appropriate rate of increase for wage costs is 2.9 per cent a year during 2004-2006, measured according to short-term wage statistics. This scope is divided between agreed wage increases of 1.7 per cent and a remaining "wage drift" of 1.2 per cent. This calculation is aimed at showing how wage formation can contribute to a more rapid recovery in economic activity and enable an increase in employment. However, the assessment of the most appropriate rate of wage increase for wage costs differs from what is considered the most probable outcome. The most probable scenario presented by the NIER has wage costs in the business sector increasing by an average of 3.4 per cent a year during 2004-2006, according to short-term wage statistics.

The Riksbank's Inflation Report contains the bank's own forecast for the most probable developments in wage costs. The decisive factor for monetary policy is whether the forecast wage costs are compatible with an inflation rate in line with the target level. The most recent negotiating rounds in 1998 and 2001 can be regarded as relatively successful. Although wage negotiations in the most recent round began at the end of a period of relatively rapid growth, they resulted in relatively moderate wage increases. However, other wage sums have risen substantially over the past year. The decisive factor for inflationary pressure in the economy is the increase in total wage sum.

<sup>7</sup> The trade unions in the industrial sector, "Löner inom industrin 2002" (Wages in industry 2002), October 2003.

## The risk spectrum

The main scenario describes what the Riksbank judges to be the most likely path for future inflation, given the assumption of an unchanged repo rate. However, the forecast in the main scenario is inherently uncertain, which is why the risk spectrum is also significant for the conduct of monetary policy.

The balance of risks presented in the October Inflation Report has not been altered to any great extent. The most significant risk factors still stem from economic developments in general, electricity prices and wage developments. One new aspect, however, is that there are tendencies towards weaker domestic inflationary pressures. As before, the overall assessment is that the risks of inflation being higher than in the main scenario are offset by the risks of it being lower. However, the uncertainty in this assessment is now somewhat lower than previously. Another difference is that both the international and domestic risks regarding Swedish inflation are currently balanced. The overall risk spectrum can be seen in Figures 43 and 44, which show that the probability of inflation outcomes below the forecast in the main scenario is the same as outcomes above the forecast.

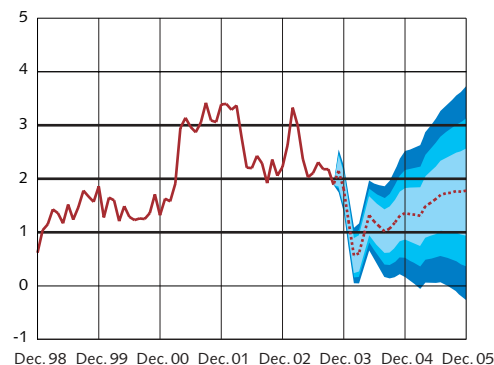
### ■ ■ Risks from international economic developments are balanced.

In the October Inflation Report, it was judged that the risks stemming from international economic conditions mainly pointed to weaker activity than in the main scenario. This assessment has been altered somewhat, and the risks in the world economy are currently deemed to be balanced. Furthermore, the uncertainty in the assessment is now judged to be somewhat less than before.

The background to the more balanced picture of international risk is that the global economic upswing has continued during the autumn and become increasingly broad-based. Growth has recovered in Japan and is buoyant in China and several other Asian countries, as well as in central and eastern Europe. In addition, GDP growth in the United States has again been unexpectedly positive. The positive signals seen during the autumn suggest that the strength in the international upturn may have been underestimated somewhat and that future growth could prove more robust, in spite of a slight upward revision of the forecast in the main scenario.

The picture is not unambiguous, however, and some factors still point to potentially weaker demand than in the main scenario, both in the United States and Europe. In the US economy, the substantial deficits in the current account and federal budget could still derail the upswing. For example, the deficits could prompt a rise in market interest rates that may dampen consumption and investment. A depreciation of the dollar could indeed facilitate an adjustment in the United States, but it would also risk delaying the upturn in Europe. Moreover, the strained fiscal position of several countries in the euro area is a source of uncertainty and could have an impact on the decisions of households and firms in the period ahead. Also, growth in Europe has been unexpectedly low for a long time, which may be an

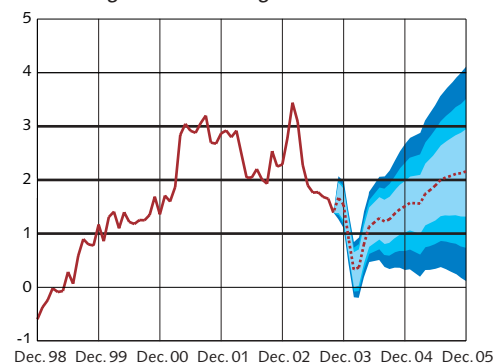
**Figure 43. UND1X with uncertainty intervals.**  
Percentage 12-month change



Note. The uncertainty intervals 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 1, 2 and 3 per cent are the Riksbank's inflation target and the tolerance limits for the annual change in CPI.

Sources: Statistics Sweden and the Riksbank

**Figure 44. CPI with uncertainty intervals.**  
Percentage 12-month change



Note. The uncertainty intervals 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 1, 2 and 3 per cent are the Riksbank's inflation target and the tolerance limits for the annual change in CPI.

Sources: Statistics Sweden and the Riksbank.

indication that the problems of low productivity and high unemployment are bigger than feared.

#### ■ ■ Domestic risks are balanced.

There are also factors in Sweden that could lead to a different inflationary path than in the main scenario. The October Inflation Report discussed the risks associated with developments in electricity prices and the forthcoming wage bargaining round. Higher electricity prices and wages could lead gradually to a rise in inflation through their direct impact on firms' costs. These risks remain in the Riksbank's present assessment.

Labour market conditions are discussed in more detail in the box "Wage negotiations 2004" in this Report. There is reason here to underscore that in an efficient labour market, weaker economic activity would point to muted wage growth. Due to tensions in the Swedish labour market, however, this is not certain to be the case, despite current unemployment levels.

The proposal to focus on low-wage groups, which was put forward as an important element in the wage negotiations, does not in itself represent a challenge to the inflation target. One risk, however, is that workers who are not covered by the proposal will demand equivalent wage hikes instead of accepting somewhat lower wage growth this time round. Another source of tension in the wage bargaining round is that white-collar workers have received higher wage increases on average than their blue-collar counterparts in local negotiations.

Moreover, firms' non-wage labour costs have risen sharply in 2003 and will do so in 2004 as well. In particular, firms' costs for white-collar workers' collective insurance policies have increased markedly compared with blue-collar workers. There is a risk that firms will pass on these costs to consumers, with higher inflation as a result.

Recent developments in inflation have been dominated by fluctuations in electricity prices. Electricity prices rose steeply last winter and were forecast at the time to decline as early as summer 2003. Prices did drop, but by less than the Riksbank expected. Electricity prices are now increasing again. In the main scenario, they are judged to fall back next spring and summer. The fact that electricity prices are now anticipated to be relatively high for a long period, as implied by pricing in the forward market, means that the risk of contagion effects to other prices and costs has risen. The rent demands for 2004 are an indication of these risks. Moreover, longer-term inflation expectations are somewhat above the inflation target. Most factors still indeed suggest that energy prices will decline steadily to more normal levels and that contagion effects will be small.

At the same time, there are signs that developments in some production conditions may have been somewhat better than expected. One such indication is that the underlying, cyclical inflation rate appears to have been lower than previously forecast this year. This is a part result of stronger than expected productivity growth.

There are no sure answers to why productivity growth has been so favourable recently. It is possible, however, that it has shifted more permanently to a higher level than before, in which case domestic cost pressures would be lower than assumed in the main scenario.

In addition, a number of factors are pointing to potentially lower domestic demand than forecast in the main scenario. For instance, current labour market weakness could result in a more sluggish rise in household consumption. In all, the domestic inflationary risks are judged to be balanced.

**Table 9. Inflation forecasts including the risk spectrum.  
Percentage 12-month change**

	12-month average		12-month change	
	2004	2005	Dec 2004	Dec 2005
CPI	1.1 (1.1)	1.9	1.5 (1.5)	2.2
UND1X	1.1 (1.2)	1.6	1.4 (1.4)	1.8

Note: The table gives the mean values of the inflation assessment's probability distribution (see Figures 43 and 44). The figures in parentheses are the corresponding figures in the October Inflation Report.

Source: The Riksbank.

**Table 10. UND1X inflation (12-month rate).  
Percentage probability for different outcomes**

	UND1X<1	1<UND1X<2	2<UND1X<3	UND1X>3	Total
Dec 2004	31 (29)	51 (51)	17 (19)	1 (1)	100
Dec 2005	27 (27)	31 (31)	27 (27)	15 (15)	100

Note: The figures show the probability of UND1X inflation being in the column's interval. The figures in parentheses show the corresponding forecasts in the October Inflation Report.

Source: The Riksbank.

**Table 11. CPI inflation (12-month rate).  
Percentage probability for different outcomes**

	CPI<1	1<CPI<2	2<CPI<3	CPI>3	Total
Dec 2004	24 (21)	52 (52)	22 (25)	2 (2)	100
Dec 2005	17 (19)	28 (29)	31 (30)	24 (22)	100

Note: The figures show the probability of CPI inflation being in the column's interval. The figures in parentheses show the corresponding forecasts in the October Inflation Report.

Source: The Riksbank.

## Fiscal policy – 1990s, now and in the future

**T**his box contains a discussion of the significance of the change in fiscal policy framework during the 1990s for economic policy, whether the budget policy objectives have been achieved so far and whether they are expected to be achieved in coming years.<sup>8</sup> In conclusion, there is also a discussion of the role of fiscal policy in the light of the challenges facing the welfare system.

### The change in fiscal policy framework

Following the deep crisis at the beginning of the 1990s, Sweden changed its exchange rate system and essentially altered both monetary policy and fiscal policy. The Riksbank was given responsibility for monetary policy with the objective of price stability. The debate conducted prior to the referendum on the euro brought to the fore the significance of the Riksbank and monetary policy for economic policy. However, the change in fiscal policy has probably had equal significance for the stable macroeconomic development since the crisis years in the beginning of the 1990s.

Fiscal policy was primarily aimed at improving public finances during the period 1994-1998. Its main aim was to reduce the large central government debt. The consolidation programme, which was originally presented in autumn 1994, contained a strengthening of public finances of around SEK 125 billion. This programme was implemented in stages during 1995 and 1998. During the same period, the budget process was tightened. One important change was that the Riksdag (the Swedish parliament) first makes a decision on the total expenditure level and thereafter decides on allocation of this to the various expenditure areas. The different ministries are then given the task of producing concrete proposals as to how reforms entailing either increased expenditure or reduced tax revenue should be financed. Automatic increases following on from growth in volume or prices

are no longer permitted in contributions to local governments or in other expenditure.

In addition, fiscal policy was given two overriding budget policy targets which can also be regarded as restrictions to the budget process. Central government expenditure is not allowed to exceed the ceiling set by the Riksdag and the net lending of the general government sector – that is to say, the difference between revenue and expenditure – shall show a surplus of 2 per cent on average over a business cycle.

The expenditure ceiling has two central purposes. One is to prevent temporary increases in tax revenue being used for permanent increases in expenditure. The other is to guarantee that savings measures will be taken if the expenditures risk exceeding the ceiling.<sup>9</sup> The expenditure ceiling for an individual budget year is established by the Riksdag in a rolling schedule three years in advance.

The purpose of the surplus target is to both reduce public sector debt as a percentage of GDP and create financial scope to guarantee the implementation of stabilisation policy measures and allowing automatic stabilisers to act without exceeding a public finances deficit of 3 per cent of GDP in adverse economic circumstances (the latter being one of the Maastricht convergence criteria).<sup>10</sup>

There are at least two reasons why it is desirable to reduce public sector debt from the present level. One is that, in the absence of other reforms, it will otherwise be difficult to manage the increased expenditure caused by the growing percentage of elderly people in the population. The other is that one of the Maastricht criteria requires that the consolidated gross debt should not exceed 60 per cent of GDP.<sup>11</sup> It is necessary to keep the level of debt sufficiently low during normal economic conditions to avoid it exceeding the limit during a possible prolonged economic recession.

<sup>8</sup> These calculations are based on the National Accounts data applying on 24 November 2003. There was no possibility to take into account any revisions in the data made since then.

<sup>9</sup> The expenditure ceiling for the central government comprises expenditure areas 1 to 27, with the exception of expenditure area 26 (interest on the central government debt, etc.), as well as expenditure for the old age pension system that lies outside the central government budget. This expenditure is known as expenditure subject to the ceiling.

<sup>10</sup> In Sweden, consumption and income are taxed at a relatively high rate and transfers are largely based on the principle of loss of income, e.g. compensation for unemployment. This means that public finances are sensitive to fluctuations in economic activity. At the same time, it means that public finances automatically contribute to sustaining demand in a recession and to keeping it down during a boom. This is why it is termed an "automatic stabiliser".

<sup>11</sup> The consolidated gross debt comprises the central government debt at nominal value and the local government sector's debts on the credit market, minus the AP pension funds' holdings of government bonds.



The change in the budget process and the introduction of clear budget policy targets have clear parallels to the institutional changes and changes in regulations that formed the basis for the new monetary policy framework.

### Budget policy target fulfilment

The consolidation programme was successful. Combined with a relatively good level of economic growth, it contributed to a reduction in the consolidated gross debt from around 74 per cent of GDP in 1994 to 68 per cent in 1998 (see Figure B14). Since the consolidation

Although the expenditure ceiling has not yet been exceeded, the system does not appear to have been applied fully according to the intentions of the budget act. The difference between the *budgeted* expenditure limited by the ceiling and the expenditure ceiling – known as the budgeting margin – shall comprise a buffer against both uncertainty regarding economic developments and factors that may cause unforeseen increases in expenditure, such as increased sick leave. However, there has been a tendency for the budgeting margin to be used for increasing expenditure. In the

**Table B1. Budgeting margin, outcome and forecast.**  
SEK billion

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Expenditure ceiling	723	720	753	765	791	812	822	856	894
Expenditure subject to ceiling	699	718	751	760	786	812	825	856	878
Budgeting margin	24	2	1	5	5	0	-3	0	16

Note. The expenditure ceiling has not been adjusted for technical adjustments.

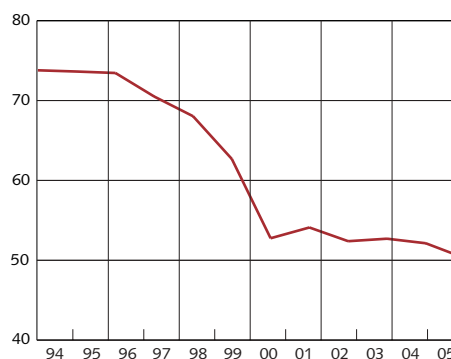
Sources: The Ministry of Finance and the Riksbank.

programme was concluded in 1998, a number of increases in expenditure and reductions in income have been implemented or announced. These include central government subsidies to healthcare, schools and welfare, increased subsidies for families with children and compensation for the introduction of the national pension contribution. Between the years 1998 and 2004, these reforms totalled approximately SEK 168 billion, an amount that exceeds the total savings achieved by the consolidation programme. However, the amounts are not really comparable, as they refer to different years and are based on different monetary values and volumes.<sup>12</sup> The large increases in expenditure and the tax cuts in recent years still raise the question of whether these reforms have been, and are, compatible with the overall budget policy targets.

#### Expenditure ceiling

The expenditure limited by a ceiling has remained within the ceiling each year since it was introduced in 1997 (see Table B1). According to the Riksbank's calculations, there is some risk that the expenditure target will be exceeded slightly this year if no measures are taken.

**Figure B14. Consolidated public sector gross debt, 1994-2005.**  
Per cent of GDP.



Sources: Statistics Sweden and the Riksbank.

spring budget bills, the budgeting margin has been set at an average of SEK 23 billion. In the subsequent (autumn) budget bill the budgeting margin has decreased to an average of SEK 16 billion. In the budget for the actual financial year this margin has decreased to only SEK 2 billion on average.<sup>13</sup> This is the small margin that has been available to manage unforeseen events. Consequently, expenditure has tended to be replaced by measures that instead reduce tax revenues. One example is the now permanent employment subsidy of SEK 4.7 billion allocated to the local government sector in the form of a tax reduction.

<sup>12</sup> See Konjunkturläget (The Swedish Economy), March 2003.

<sup>13</sup> See the calculations contained in the report "Stabilisation policy in the monetary union", SOU 2002:16, Chapter 5.

The purpose of the expenditure ceiling risks being undermined if the budgeting margin is utilised to increase expenditure and if the central government circumvents the ceiling through reforms that reduce income instead of increasing expenditure.

#### Surplus target

The surplus target, which was introduced in 2000, can be evaluated by calculating the general government's annual net lending for a whole business cycle. If the net lending is close to 2 per cent on average, the surplus target has been met. The period studied often does not comprise an entire business cycle and a simple average therefore risks being misleading. This applies regardless of whether the target is evaluated in retrospect or looking ahead, based on a forecast. For this reason, the surplus target is sometimes also assessed with the aid of estimates of the structural balance. This measure is intended to show how large the net lending would be if the degree of usage of production resources is at a normal level, that is

indicates how net lending expressed as a percentage of GDP varies according to the level of the output gap. The budget elasticity multiplied by the output gap gives a measure of the cyclical part of the net lending (the cyclical part also reflects the effects of automatic stabilisers on net lending). In an economic boom, the general government's finances are better as a result of tax revenue being higher and expenditure lower than with a normal level of resource utilisation. Correspondingly, savings are lower in a recession as tax revenue is lower than normal and expenditure is higher. The budget elasticity can be estimated to around 0.75. The structural balance is obtained by removing the cyclical part from the actual net lending.

The following example illustrates how the structural balance can be calculated: Let us assume that actual net lending amounts to 3.5 per cent of GDP in a boom, while the output gap is estimated at 2 per cent of GDP. The cyclical part of the net lending will then amount to 1.5 per cent of GDP ( $0.75 \times 2 = 1.5$ ).

**Table B2. Net lending and structural balance in the public sector 2000-2005.**  
Per cent of GDP

	2000	2001	2002	2003	2004	2005
Net lending	3.4	4.6	1.1	0.5	0.9	1.5
Periodisation of taxes	1.5	-2.0	-0.9	0.2	0.1	0.2
Net lending with accrual taxes	4.9	2.5	0.2	0.7	1.0	1.7
GDP gap	1.2	-0.1	-0.4	-1.1	-1.2	-0.7
Structural balance (with accrual taxes)	4.0	2.6	0.4	1.5	2.0	2.3

Note. The Riksbank uses different methods to estimate the output gap (see also Table B3).

Sources: The Ministry of Finance, Statistics Sweden and the Riksbank.

to say, when the economy is in neither a boom nor a recession. The structural balance is thus a measure of public sector savings that can be directly related to the targeted 2 per cent level. An annual structural balance of around 2 per cent of GDP therefore indicates that the surplus target is met.

The structural balance is usually based on a calculation of the output gap and on budget elasticity. The output gap is an indicator of the degree of utilisation of production resources. When this is at a normal level, the output gap is said to be closed. The budget elasticity

The estimate of the structural balance will then be 2 per cent of GDP ( $3.5 - 1.5 = 2$ ).

Table B2 shows how the *periodised* net lending and the structural balance (with accrual taxes) are estimated to develop between the years 2000 and 2005.<sup>14</sup> On average, net lending with accrual taxes has amounted to 1.8 per cent during this period. The calculated structural balance exceeded the target during the first two years, but was lower than the target in 2002. During the forecast period it is expected to be below the target in 2003 but in line with it during 2004 and 2005.

<sup>14</sup> The reported net lending is affected to a large degree during certain years by the incomplete periodisation of tax revenue in the National Accounts. To make a fair comparison of the structural balance over time, it is necessary to adjust the actual net lending for these periodisation effects. The adjusted financial balance is called net lending with accrual taxes.

It should be emphasised that there is great uncertainty attached to calculations of the structural balance and that there are alternative methods, which may give markedly different results. The reason for the differences in the results is often that they give rise to relatively large differences in estimates of the output gap. Table B3 compares the results of three different methods which only differ in their estimate of the size of the output gap:

- A method where the output gap is estimated by weighing together various methods and indicators (this is the method used in Table B2).
- The HP method, which estimates the output gap solely by filtering GDP time series.
- The UC method, which estimates the output gap by relating unemployment to inflation.

of 2005 (see Figure B14), which with satisfies the Maastricht criterion by a broad margin. Despite the fact that the expenditure ceiling does not appear to have been fully applied according to the intentions of the budget act, and that the surplus target has not been attained or is not expected to be attained for the entire period studied, when measured in terms of structural balance, it appears that the overall purpose of the expenditure ceiling and surplus target have been met on the whole. The budget policy targets have contributed to a more disciplined budgetary process and to more stable public finances, which in turn has facilitated monetary policy. This has probably contributed to increasing confidence in economic policy as a whole in Sweden.

However, there are a couple of worrying tendencies. The entire surplus in public sector savings falls within the old age pension system. Many local governments are currently finding difficulty in meeting their balance requirements.

**Table B3. Structural balance 2001-2005, alternative methods.**  
Per cent of GDP

	2001	2002	2003	2004	2005
Weighted method	2.6	0.4	1.5	2.0	2.3
The UC method	2.3	0.0	0.8	0.8	1.1
The HP method	1.6	-0.2	1.0	1.6	2.1
Average	2.2	0.1	1.1	1.5	1.8

Source: The Riksbank.

If the average of the structural balance for the three different methods is calculated, it indicates that the surplus target was attained in 2001 but not in 2002. Measured in this way, the surplus target will not be attained in 2003 or 2004. However, it indicates that the surplus target is within reach in 2005.

#### *Overall assessment of target fulfilment*

The surpluses in public finances and a relatively high level of economic growth have led to the consolidated gross debt continuing to decline as a percentage of GDP. The debt is estimated to correspond to 50 per cent of GDP at the end

In addition, the previous years' surpluses in central government finances have been replaced by a deficit (see Table B4). Throughout the entire forecast period, the central government's financial balance is expected to be negative, which means that the central government debt will increase in absolute terms. Although the consolidated gross debt measured as a percentage of GDP is expected to continue to fall, the higher central government debt means that public finances risk becoming more sensitive to variations in interest rates.

**Table B4. Net lending in different sectors.**  
Per cent of GDP

	2001	2002	2003	2004	2005
Old-age pension system	-4.6	2.0	2.0	2.1	2.1
Local government sector	-0.2	-0.4	0.4	0.0	0.0
Central government	9.4	-0.6	-1.9	-1.1	-0.6
Total	4.6	1.1	0.5	0.9	1.5

Sources: Statistics Sweden and the Riksbanken.

### Fiscal stance and fiscal impulse

In addition to an analysis of budget policy target fulfilment, it is also necessary, from a stabilisation policy perspective, to analyse how fiscal policy affects demand in the economy. It is usually necessary to use various economic models to estimate the effects of fiscal policy on demand. However, it is also possible to form a rough estimate of the impact of fiscal policy on demand by studying how net lending varies over time. The change in net lending captures the effect of both the automatic stabilisers and the change in the structural balance. Table B5 shows the change in the Riksbank's forecast of

made earlier lead to the discretionary fiscal policy in the central government budget remaining expansionary for this year and next year. As GDP is expected to grow at a slightly slower rate than potential GDP both this year and next year, the automatic stabilisers are expected to stimulate demand. Nevertheless, despite the continued expansionary fiscal policy in the budget, the Riksbank expects the structural balance to improve by approximately 1 percentage point this year. Lower net capital costs and higher local government taxes will contribute to this. The structural balance is also expected to improve in 2004 and 2005,

**Table B5. Fiscal impulse**  
Change as a percentage of GDP.

	2002	2003	2004	2005
<b>Net lending</b>	<b>-3.5</b>	<b>-0.6</b>	<b>0.5</b>	<b>0.5</b>
Periodisation of taxes	1.1	1.1	-0.1	0.1
<b>Net lending with accrual taxes</b>	<b>-2.4</b>	<b>0.5</b>	<b>0.4</b>	<b>0.7</b>
GDP gap	-0.3	-0.7	-0.1	0.5
<b>Automatic stabilisers</b>	<b>-0.2</b>	<b>-0.6</b>	<b>-0.1</b>	<b>0.4</b>
<b>Structural balance (with accrual taxes)</b>	<b>-2.2</b>	<b>1.1</b>	<b>0.5</b>	<b>0.3</b>
Of which				
Discretionary fiscal policy in central government budget	-1.8	-0.6	-0.2	0.1
Local government tax increases	0.0	0.4	0.2	0.0
Capital costs. net	-0.1	0.6	0.0	0.0
Other factors	-0.3	0.7	0.5	0.2

Note. Local government tax increases are expected to amount to an average of SEK 0.30 in 2004.

Sources: The Ministry of Finance, Statistics Sweden and the Riksbank.

the general government's net lending and structural balance (with accrual taxes) for the years 2002-2005, broken down into various factors affecting the balance. The item "other factors" shows the part of the change in the structural balance that cannot be explained by discretionary fiscal policy in the central government budget, local government tax increases and changes in net capital costs. This "errors and omissions" item captures, for instance, demographic and structural changes, behavioural effects not related to economic activity and composition effects.

Between 2001 and 2002 the structural balance deteriorated significantly, mainly because the discretionary fiscal policy in the central government was strongly expansionary. As resource utilisation deteriorated slightly between 2001 and 2002, there was a slight stimulation effect from the automatic stabilisers. Despite savings measures in the 2003 spring budget bill, decisions on reforms

primarily due to the item "other factors affecting the balance". As resource utilisation is expected to improve during 2005, the automatic stabilisers are expected to have a restraining effect on domestic demand.

### Future role of fiscal policy

The target for economic policy is usually regarded as being to create a high level of welfare through economic growth, full employment, stable prices, a balance in foreign trade and a "fair" distribution of consumption possibilities among citizens.<sup>15</sup> However, the shaping of economic policy and the importance attached to the different targets has varied over time. At the beginning of the 1990s, economic policy changed direction towards what is usually termed a stability-oriented economic policy. This type of policy is often defined as a set of regulations or institutions that govern monetary and fiscal policy.<sup>16</sup> The emphasis in the economic policy

<sup>15</sup> See, for instance, Musgrave, R. A. and Musgrave, P.B., "Public Finance in Theory and Practice", McGraw-Hill Book Company, 1989.

<sup>16</sup> See, for instance, Jonung, L. (2002), "Tillbaka till konvertibilitetsprincipen? Penning- och finanspolitiska regimer i ett historiskt perspektiv", (Back to the convertibility principle? Monetary policy and fiscal policy regimes in an historical perspective), Appendix 3 to SOU 2002:16.

conducted since the beginning of the 1990s has been on price stability and sound public finances. This should be viewed in the light of the negative experiences of a high, varying inflation rate and a trend of an increasing deficit in public finances. However, there are factors which indicate that economic policy will need to focus more on other aspects in the future.

Although growth in Sweden has been relatively high in recent years, Sweden has lost ground in the welfare league, measured in terms of GDP per inhabitant and compared with similar industrial nations. Growth in the economy is determined primarily by how productive we are and how much we work. Labour productivity, measured as GDP per hour worked, depends partly on the level of education, as well as technological advances and the prevailing conditions for businesses and investment. The number of hours worked depends on many different factors, for instance, how many people are of working age, how many of these are employed, absence from work, etc. Given the increasing number of people on sick leave and the challenges that will ensue from an ageing population, it is important that economic policy should focus on issues that can increase the total labour supply. Aspects that should play a central role here include raising the retirement age, increasing the percentage of those of working age actually in work, greater labour immigration and examining the significance of the taxation and social security systems for the total labour supply.

Economic policy must be directed to a greater extent towards meeting the challenges awaiting us when it concerns the financing of the public sector. The unfavourable demographic developments will probably mean, in the absence of other reforms, that the

tax take on the working part of the population will have to be raised in the future.

Another factor that risks contributing to this situation is that productivity is increasing at a tangibly slower rate in the public sector than in the private sector, while wage increases in this sector tend to follow those in the business sector. This will lead to an increase in the relative price of public sector goods and services over time, which will in turn put upward pressure on public expenditure. This phenomenon is known as "Baumol's disease". If the tax take is proportional as in the local government sector, tax income will counterbalance the increased expenditure caused by the higher relative price. However, this assumes that public sector consumption's percentage of GDP, measured in terms of volume, is allowed to fall over time. However, if there is a political ambition to preserve a constant volume relationship between private and public consumption, Baumol's disease will unavoidably lead to the necessity of raising the tax take and marginal taxes in the future.<sup>17</sup>

Increasing the already high taxation pressure and marginal tax rates would reduce the incentives for labour and investment. Furthermore, the welfare system is facing a number of other challenges, such as the risk of increasing international tax competition.

There are evidently many factors raising questions regarding the future design and financing of the welfare system. It is better to begin such a discussion now, rather than wait until Sweden is in a situation where the problems are already so large that it is difficult to implement the necessary reforms in time. Experiences from the work on introducing the new pension system show that it takes time to bring about more comprehensive changes to the welfare system.<sup>18</sup>

<sup>17</sup> In the National Accounts the productivity increase in the public sector is set at zero, because of problems in measuring it. However, for Baumol's disease to prevail, it is not necessary for productivity growth in the public sector to be zero. It is sufficient that the productivity increase is lower than that in the private sector. This is most probably the case.

<sup>18</sup> See also the Riksbank's comments on the report "Stabilisation policy in the monetary union" (SOU 2002:16), Ref. no. 02-773-DIR, and on the report "Våra skatter?" (Our taxes?) (SOU 2002:47), Ref. no. 02-2037-DIR.



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