



Inflation Report

2005:2

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■ Foreword

The objective of the Riksbank's monetary policy is to keep inflation at 2 per cent, with a tolerance for deviations from this level of +/- 1 percentage point. The Riksbank gives its collective view of the inflation outlook in the Inflation Report. The Executive Board's monetary policy decisions and discussions are presented in separate press releases. Executive Board members may differ in their opinions on inflation prospects. The Board members' assessments and individual stances on monetary policy decisions are presented in the minutes of the Executive Board's monetary policy meetings. Any differences in opinion regarding the inflation outlook on this occasion will thus be recorded in the separate minutes of the Board meeting on 20 June, to be published on 5 July 2005.

This Inflation Report reproduces the main features of the presentations and discussions at the Executive Board meetings on 2 June and 14 June 2005. The purpose of the Inflation Report is not merely to produce background material for monetary policy decisions, but also to spread knowledge about the Riksbank's assessments. The Bank aims to make it easier for external parties to follow, understand and assess its monetary policy.

The analyses in the Report's main scenario are based as usual on the assumption that the repo rate is held unchanged for two years. The inflation outlook presented under this assumption thus covers the period up to and including 2007 Q2. The forecasts are also based on a number of other important assumptions, which are described in more detail in the Report.

A box in the Report contains inflation forecasts based on the assumption that the repo rate evolves in line with financial market expectations (as measured by implied forward interest rates). These forecasts extend to the end of 2008 Q2. The forecasts in this box help to broaden the basis for monetary policy decisions. An interest rate path in line with forward rates should not be interpreted as the monetary policy assumption that the Executive Board considers most probable.

The Inflation Report begins with a summary. That is followed by a discussion of the key determinants of inflation. Finally, the Report presents the Riksbank's overall assessment of inflation prospects in the main scenario (under the assumption of an unchanged repo rate) and the key risks to this assessment. As usual the Report contains a number of boxes, which aim to provide more in-depth knowledge about matters of importance for the inflation assessment.

Stockholm, June 2005

Lars Heikensten

GOVERNOR OF SVERIGES RIKSBANK

■ Summary

Growth in the world economy remains good on the whole. However, in the euro area growth has been more subdued than was previously forecast. In Sweden, too, GDP growth has slackened considerably more at the beginning of the year than was anticipated and the forecast for 2005 has been revised down considerably. Most indications are that the slowdown is temporary, but capacity pressures are still expected to be lower during the forecast period than was forecast in March. Domestic cost pressure is expected to be weak. At the same time, imported inflation is low, due to stiff competition in the world market. Capacity pressures and inflation will gradually increase, but inflation is nevertheless expected to remain below 2 per cent over the coming two years. The uncertainty over economic activity in Sweden and abroad means there is a greater risk of inflation turning out lower than in the main scenario than of it turning out higher.

■■ International GDP growth good but slowing down.

International GDP growth was strong last year. The Riksbank's assessment in the March Inflation Report was that international growth would slacken somewhat this year and over the coming two years, partly due to less expansionary economic policy. However, growth was judged to be sufficiently strong for global capacity pressures to increase.

The information on international developments received since March indicates that growth in the euro area has slackened more than anticipated. However, in the United States the signs of weakness noted at the beginning of the year appear to have only been temporary. Meanwhile, growth in Asia is high; China is showing strong growth and Japan appears to be recovering. The countries that constitute Sweden's most important trading partners have shown unexpectedly weak import figures. All in all, this development together with the continued high oil price means the Riksbank is revising down its forecast for Swedish export market growth this year and next year.

The assessment in the Riksbank's main scenario is still that international growth will be good but decline somewhat. The expansionary economic policy being conducted now, together with increased demand from, for instance, Asia will stimulate world trade. Companies' balance sheets are in general strong, particularly in the United States, while profits are at a good level. Moreover, market rates have fallen since the March Inflation Report, which should help counteract the slackening tendencies noted in economic activity recently. This indicates relatively high GDP growth over the coming years, although it will subside. Global capacity pressures will thereby increase, albeit at a fairly modest rate. Growth is not expected to be sufficiently high to lead to a substantial increase in international price pressure. Tougher international competition will put pressure on prices around the world (see the Box "Why are Swedish import prices so low?"). The expected fall in oil and commodity prices will also counteract a rapid upturn in inflation.

■ ■ Unexpectedly weak growth in Sweden.

Strong international demand for Swedish goods and services led to substantial growth in exports and GDP last year. Investment also increased after showing weak development since 2001. The March Inflation Report contained an assessment that growth in Sweden would be slightly lower this year than last year, partly because exports were not expected to increase as rapidly. Instead, corporate investment and household consumption were expected to account for the greater part of the increase in demand. Despite the weaker growth, activity in the economy was assumed to be sufficiently high for capacity pressure to increase.

New data indicate that growth will slow down more than anticipated this year. During 2005 Q1 GDP growth was much lower than the Riksbank had forecast in March. Exports were not the only component showing slower growth than expected; both household consumption and public consumption were weaker than anticipated. However, investment showed strong growth, largely in line with the forecast.

Nevertheless, most indications are that growth in Sweden will remain relatively high. Productivity is still increasing strongly, in line with the forecast. Households and companies' financial positions have strengthened, which indicates a good growth in private consumption and investment in the coming years. The low interest rates and continued upturn in investment and construction also support this. Households' real income will rise as a result of a stable increase in nominal wages, low inflation and expansionary fiscal policy. When the labour market gradually improves it should lead to increased optimism and more rapid growth in consumption. At the same time, investment and exports should be stimulated by the good growth in the world market and by the fact that companies have made good profits and been able to improve their balance sheets. The krona has weakened recently, and although some improvement is expected, the assessment is that it will nevertheless be weaker than was forecast in the March Inflation Report, which should benefit exports.

The falls in the number of hours worked and in production during Q1 are also largely due to surprisingly weak developments in the public sector. Developments in public sector activities are not an expression of the underlying strength of economic activity in the same way as, for instance, private consumption and investment. There are also political signals that both consumption and the number of hours worked in the public sector will not remain weak, but will instead rise.

However, the continuing weak situation in the labour market gives some cause for concern. Unless employment begins to increase, there is a possibility that households will continue to save a large part of their income and only marginally increase their consumption.

The overall assessment in the main scenario is that the low growth rate in Sweden in Q1 was primarily a temporary slowdown

and not the beginning of an economic downturn. Nevertheless, developments during Q1 mean that capacity pressures in the Swedish economy have not increased recently, but have fallen, and that GDP growth in Sweden will be much lower this year than was assumed in the March Inflation Report. The growth forecast for 2006 is also being revised down, but to a lesser extent, for reasons described above. Capacity pressures are therefore expected to rise, but at a relatively slow rate and from a lower level than was forecast earlier.

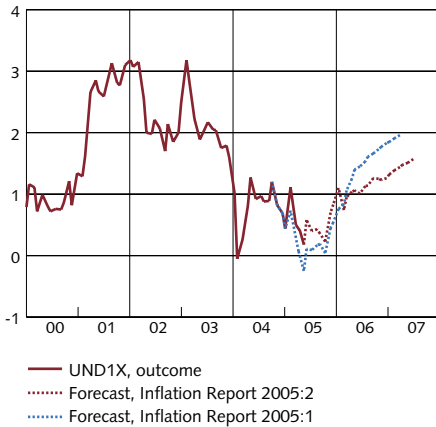
■ ■ **Cost pressure is low but expected to increase.**

Despite a high growth rate in Sweden in 2004, the labour market remained weak. Companies were able to increase production without new recruitment due to greater productivity and an increase in average working hours. Substantial growth in productivity, combined with a relatively slow increase in total wage costs, led to companies' production costs falling by just over 1 per cent last year.

This year expectations have been that employment would begin to rise slightly. The slackening in GDP growth increases the uncertainty factor in this assessment. However, labour market indicators in the form of an increased number of new job vacancies and a reduction in the number of redundancy notices imply that the labour market will strengthen. This is also indicated by labour market programmes presented in the Government's Spring Fiscal Policy Bill. Nevertheless, the forecast for employment has been revised down slightly this year and the expected increase in employment is now expected to arise to a greater extent from labour market programmes. On the other hand, over the coming two years the number of persons employed is expected to increase, but more as a result of an increase in domestic demand and production. The main increase in employment is expected to be in the private services sector and the construction sector. However, despite the measures employed, weaker GDP growth has led the Riksbank to revise down its forecast for employment during 2006 and 2007 in comparison with the March Inflation Report.

As the number of persons employed increases, growth in productivity is expected to decline for cyclical reasons. During 2007, productivity in the business sector is expected to increase by just over 2 per cent, which is lower than the average for the 1990s, but higher than that for the 1980s. It is normal for productivity to increase at a slower rate after a period of high growth, but it is difficult to determine exactly how much it will slow down. Wage costs will increase slightly as the situation in the labour market improves. All in all, this means that companies' costs will rise slightly. However, as capacity pressures are expected to be relatively moderate even at the end of the forecast period, it is assumed that the upturn in domestic cost pressure will also be limited. Compared with the assessment in the March Inflation Report, the forecast for cost pressure has been revised down somewhat as capacity pressures are expected to be lower and the labour market is expected to be weaker.

Figure 1. UND1X inflation, outcome and forecasts.
Constant repo rate.
Annual percentage change



Sources: Statistics Sweden and the Riksbank.

Inflation assessment

Inflation has been low since the end of 2003 (see Figure 1). In May this year, CPI and UND1X inflation were at 0.1 per cent and 0.2 per cent respectively. This is nevertheless slightly higher than was assumed in March, mainly due to the unexpectedly high oil price. Several factors have contributed to slower price increases. Domestic cost pressure is low due to high growth in productivity and low wage cost increases. This can be connected to some extent to relatively weak capacity pressures. However, factors of a more structural nature, such as increased competition in the food industry, have also contributed to a rapid increase in productivity and a low inflation rate. At the same time, prices of imported goods in CPI adjusted for oil prices have fallen since mid-2003. The decline is on a broad scale and partly due to an appreciation of the krona of just over 15 per cent between September 2001 and the beginning of this year. However, the decline is also due to changes in trading patterns, which have involved increased imports from low-cost countries such as China (see the box "Why are Swedish import prices so low?"). Adding to this is the EU's abolition of import quotas on clothing and textiles in January 2005, which has probably contributed to the relatively low rate of clothes price inflation to date this year.

Inflation is expected to remain low for the rest of this year. It is to some extent being held back by structural factors that cannot be expected to endure, such as falling food prices. In addition, productivity growth is expected to remain high, which will subdue cost pressure and thereby the rate of price increase.

Over the coming years, inflation is expected to increase but at a fairly moderate rate, partly due to capacity pressures being relatively low, even if they increase. The upturn will follow on from a slight rise in the rate of wage increase and lower growth in productivity. Domestic cost pressure will thereby increase. This indicates that domestic inflation will be higher during 2006 and 2007 than in 2005. Imported inflation is also expected to begin rising slightly as a result of capacity pressures in the world economy increasing. However, international price pressure is expected to remain low even during the coming years and import prices are expected to rise only slightly towards the end of the forecast period.

Compared with the Riksbank's assessment in March, the forecast for inflation has been revised upwards in the short term, but downwards in the longer term (see Table 1). Higher oil prices and a weaker exchange rate lead the Riksbank to revise its forecast upwards this year, despite weaker growth. However, the weaker growth will dominate the picture in the near future and has led to a lower forecast for inflation in 2006 and 2007.

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

	Annual average			12-month rate		
	2004	2005	2006	June 2005	June 2006	June 2007
CPI	0.4 (0.4)	0.3 (0.1)	1.2 (1.5)	0.5 (0.0)	1.2 (1.6)	1.8
UND1X	0.8 (0.8)	0.5 (0.2)	1.1 (1.4)	0.6 (0.1)	1.0 (1.4)	1.6
UNDINHX	1.6 (1.5)	1.1 (0.9)	1.7 (2.1)	1.0 (0.8)	1.8 (2.3)	2.2
UNDIMPX	-0.8 (-0.6)	-0.8 (-1.3)	-0.2 (-0.1)	-0.4 (-1.4)	-0.7 (-0.3)	0.3

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

Sources: Statistics Sweden and the Riksbank.

■ ■ Inflation could be lower than in the main scenario.

The assessment in the March Inflation Report was that the risk outlook for inflation was balanced. At present, the Riksbank's assessment is that the risks of inflation being lower than in the main scenario are slightly greater than the risks of inflation being higher, despite the relatively large downward revision of the inflation forecast in the main scenario. The risks are mainly connected with uncertainty over economic developments both in Sweden and abroad.

Economic activity in the euro area has not strengthened as expected and there is a risk that growth in demand will remain weak. There is also some uncertainty over developments in the United States, where good news and bad news on economic activity have alternated recently. Household savings are low and an adjustment is possible as interest rates rise. The deficit on the US current account could lead to an abrupt adjustment in the dollar rate and to a more rapid rise in interest rates than is assumed in the main scenario; this would risk having negative repercussions for the global economy. It is also possible that the rapid growth in Asia will slow down more than anticipated. For instance, there may be reason to feel some concern over developments in the Chinese economy. The oil price comprises, as usual, a risk factor for economic activity, although its development is partly tied to the other sources of uncertainty already listed. A continuing high oil price could have a subduing effect on international economic activity and also lead to higher inflation than assumed in the main scenario. However, it is also reasonable to believe that weaker growth in the euro area, the United States or Asia could lead to a decline in the demand for oil and thus a lower price.

Uncertainty over economic developments in Sweden is partly dependent on the risks regarding international developments and what these entail for Swedish exports. There are also a number of domestic risks, mainly linked to the labour market and consumption. In the absence of an improvement in the labour market, there is a risk that the upturn in private consumption demand will be weaker than anticipated.

Taken together, the economic developments in Sweden and abroad imply a risk of lower inflation than in the main scenario.

There are also risks related to factors of a more structural

nature. It is now assumed in the main scenario that international price pressure will be lower than was previously anticipated. Tougher domestic competition on food is also expected to hold inflation down, particularly this year. However, it is uncertain how these factors will affect future inflation. It is possible that they will have greater effect, or be more persistent than anticipated, and this would lead to lower inflation than in the main scenario. At the same time, it is possible that the significance of the factors holding down inflation has been overestimated.

Another factor that has contributed to the recent low inflation is the rapid growth in productivity. It is not entirely clear why productivity has increased so strongly. There is considerable uncertainty over how productivity will develop. It is assumed in the main scenario that productivity growth will slow down as economic activity strengthens, which is the normal sequence in this cyclical phase. However, there is a risk that the durability of the high growth rate is being underestimated. It is also possible that productivity growth will slow down more rapidly than is assumed in the main scenario.

The krona has not strengthened as expected recently, which is probably linked to the signs of weaker growth in Sweden and the effects this has on expectations of monetary policy. The main scenario assumes the krona will appreciate but the risks regarding international and domestic economic activity entail a risk of a weaker krona. Were the krona not to appreciate as assumed in the main scenario, but to remain at a low level, this could lead to somewhat higher inflation one to two years ahead, but also to greater net exports and higher GDP growth. However, the effects will differ depending on what the reasons behind the weaker krona are shown to be. If the weaker krona is a consequence of declining demand in Sweden or abroad, the total effects on growth and inflation in Sweden are unlikely to be problematic. The situation could prove different if a weak Swedish krona were combined with a continued economic upturn.

To sum up, the Riksbank's assessment is that the probability of inflation turning out lower than in the main scenario is slightly greater than the probability of it turning out higher (see Tables 1 and 2).

**Table 2. Inflation forecast taking into account the risk outlook.
Constant repo rate.
Annual percentage change**

	Annual average		12-month rate	
	2005	2006	June 2006	June 2007
CPI	0.3 (0.1)	1.1 (1.5)	1.1 (1.6)	1.6
UND1X	0.5 (0.2)	1.0 (1.4)	0.9 (1.4)	1.5

Note. The assessment in the March Inflation Report is shown in brackets. The figures refer to the mean values of the probability distributions for the inflation forecasts in Figures 44 and 45.

Source: The Riksbank.

■ ■ Forward rates predict higher repo rate.

The Riksbank also produces forecasts based on an assumption that the repo rate will develop in line with implied forward rates. This means that this time the repo rate is assumed to follow a 15-day average of implied forward rates as of 1 June 2005. These inflation forecasts stretch to June 2008. The interest rate path used in this forecast entails a short-term easing of monetary policy. As of mid-2006, the repo rate is expected to be slowly raised at intervals and to amount to almost 3.5 per cent at the end of 2008.

This interest rate path is expected to give roughly the same growth rate during 2005 and 2006 as would a constant repo rate. During 2007, exports, investment and consumption are expected to develop more weakly than in the main scenario. GDP growth is then expected to amount to 2.4 per cent, which is 0.3 percentage points lower than with a constant repo rate.

The assessment of capacity pressures in 2005 and 2006 is thus roughly the same as in the case of a constant repo rate and the forecast for inflation is therefore also the same. During 2007 and 2008 cost pressures, and thereby inflation, are expected to continue increasing slowly. UND1X inflation is expected to be just below target in mid-2008 (see Figure 2 and Table 3).

Table 3. UND1X-inflation, forecast to 2008 based on implied forward rates and on a constant repo rate.
Annual percentage change

	Annual average			12-month rate		
	2005	2006	2007	June 06	June 07	June 08
UND1X						
Implied forward rates	0.5	1.2	1.6	1.1	1.6	1.8
Constant repo rate	0.5	1.1		1.0	1.6	

Sources: Statistics Sweden and the Riksbank.

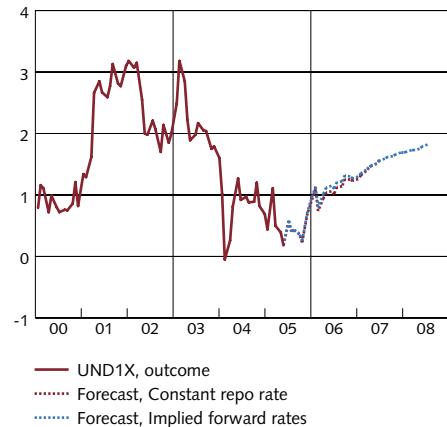
Table 4. Key figures. Constant repo rate.
Per cent and annual percentage change

Key figures	2005	2006	2007
GDP OECD-19, change	2.5 (2.6)	2.6 (2.8)	2.7 (2.7)
Crude oil price, annual average, USD/barrel	48 (43)	46 (40)	44 (38)
Market growth for Swedish exports	6.0 (7.0)	6.7 (6.9)	6.8 (6.8)
SEK/TCW, annual average	125.4 (123.6)	123.7 (122.5)	123.2 (122.5)
GDP at market prices, change	1.9 (3.2)	2.7 (3.2)	2.7 (2.8)
Hourly wage, whole economy, change	3.5 (3.5)	3.7 (3.9)	4.0 (4.2)
Labour productivity in business sector, change	2.6 (2.8)	2.3 (2.3)	2.1 (2.1)
Unit labour cost in business sector, change	0.6 (0.7)	1.9 (2.1)	1.9 (2.2)
Employed, change	0.3 (0.5)	0.7 (1.4)	0.9 (1.2)
Open unemployment, per cent	5.2 (5.1)	4.9 (4.4)	4.5 (4.0)
Public financial saving, percentage of GDP	1.3 (1.5)	1.5 (1.6)	1.8 (1.8)

Note. The assessment in the previous Inflation Report is shown in brackets.

Sources: International Petroleum Exchange, OECD, Statistics Sweden, The National Labour Market Board and the Riksbank.

Figure 2. UND1X-inflation, forecasts based on a constant repo rate up to June 2007 and based on implied forward rates to June 2008.
Annual percentage change



Sources: Statistics Sweden and the Riksbank.

■ Determinants of inflation

The financial markets

International bond rates remain very low. In the United States the central bank has continued raising its key rate in line with market expectations. The signs that international economic activity has been subdued have led to money market agents expecting lower key interest rates in future than they anticipated in March. This applies to both the euro area and Sweden. The krona has weakened since the March Inflation Report.

■ ■ Continued fall in long-term rates.

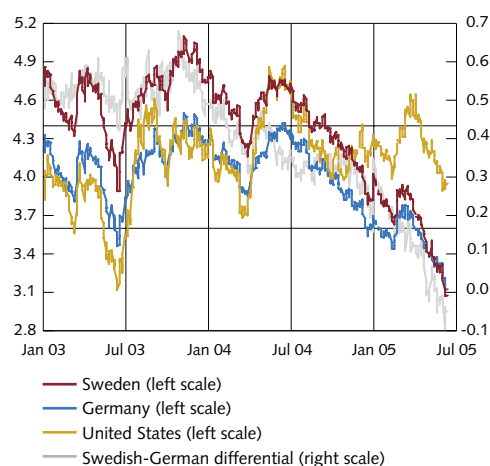
International bond rates fell during most of last year, despite the international economic recovery. The downturn in interest rates fell in the new year, when bond rates began to rise. However, this upturn proved to be temporary. Ten-year bond rates are now between 0.5 and 0.9 percentage points lower than when the March Inflation Report was published (see Figure 3). One of the reasons behind the fall in interest rates in Sweden and the euro area is that money market agents' expectations of when key rates will be raised have been moved forward in time.

Although there are signs of a slight slowdown in international economic activity, growth is expected to remain good. This usually leads to a gradual rise in bond rates. Given this, bond rates have been surprisingly low in most countries, both in relation to the economic cycle and to previous patterns.

The low bond rates reflect the fact that total saving in the world is at a relatively high level and that willingness to invest in the industrialised nations is relatively low. This holds back the required rate of return. Risk premiums have also been very low, which means that investors have not received a higher return, despite taking greater risks. This is evident from the fact that the differences between interest rates on the different markets have been unusually small. However, as global investment activity has recently begun to recover, interest rate differences have begun to rise. The differences between corporate bonds and government bonds have increased in both the United States and the euro area. The rising corporate bond rate could be partly due to a couple of large international corporations having their credit ratings downgraded recently. However, rates on other corporate bonds, where the issuers have good credit ratings, have also risen. The differences between bank rates and government bonds have also increased, both in Sweden and abroad. Risk premiums have thus increased slightly towards a more normal level, but they still remain at relatively low levels.

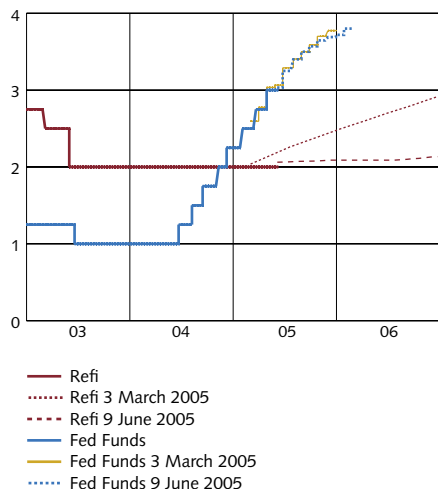
A further explanation for the low interest rates are the increased requirements that life insurance companies should balance their assets against their long-term obligations in a better way. This process is being enforced both within the EU and outside the union. The change

Figure 3. Yields on 10-year government bonds in Sweden, Germany and the United States and the Swedish differential to Germany.
Per cent



Source: The Riksbank.

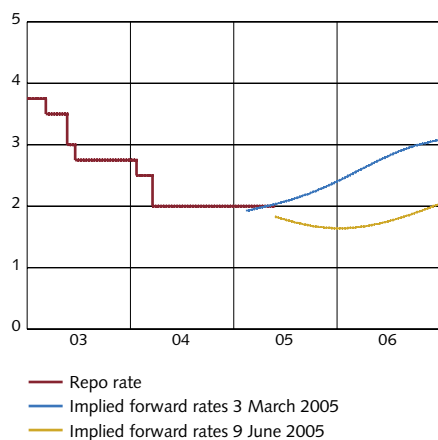
Figure 4. Monetary policy expectations in the euro area and the USA according to implied forward rates and Fed Funds futures.
Per cent



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

Source: The Riksbank

Figure 5. Monetary policy expectations in Sweden according to money market instruments.
Per cent



Source: The Riksbank.

has led to, and will continue to contribute to, a gradual increase in the global demand for bonds with a long time to maturity. This in turn may push down long-term bond rates even further.

In many countries this has led to the supply of long-term bonds increasing. For instance, the French government issued a bond with a 50-year duration at the beginning of this year and the United States will probably resume issues of 30-year government bonds. In Denmark, where the new rules have already been introduced, companies have been able to meet the changes, partly by increasing their holdings of foreign bonds. The Swedish life insurance companies will also adapt to the new balance requirements. There is a possibility that the change may force down long-term rates in Sweden even further.

■ ■ Expectations of a repo rate cut.

Since the March Inflation Report, the Federal Reserve has raised its rate by 0.5 percentage points, from 2.5 per cent to 3.0 per cent. The increases so far have been in line with market expectations. There have been signs of a short-term slowdown in the recovery in economic activity in the United States, but this has not led to any tangible change in monetary policy expectations. According to the pricing in the money market, the Federal Reserve is expected to gradually raise its key rate to 3.75 per cent at the beginning of next year (see Figure 4). The increases in interest rates, together with falling bond rates have led to a substantial reduction in the difference between government bond rates and the key rate, that is, the yield curve has flattened out.

The ECB has held its key rate, the refi rate, unchanged at 2 per cent for more than two years now. The fall in long-term bond rates has led to a decline in the difference between government bonds and the key rate in the euro area, too. New data have been interpreted by market agents as signals that growth will be slightly weaker than was previously assumed. This has contributed to pushing down long-term interest rates. At the same time, expectations of the timing of the first increase in the refi rate have moved forward. Previously, the ECB was expected to raise the refi rate to 2.25 per cent (see Figure 4) in the middle of the summer. These expectations have now been shifted to the beginning of next year. Since the March Inflation Report, the euro has also weakened against the dollar by around 9 per cent. The low long-term rates and the weaker euro contribute to alleviating the effects of the subdued economic activity in the region.

There have also been signs in Sweden that economic activity is slowing down. In contrast to the euro area, this has led to market expectations of some reduction in the repo rate (see Figure 5). The turnaround in market expectations has meant that the ECB's refi rate is now expected to be higher than the Swedish repo rate by the end of next year.

■ ■ Weaker krona.

The krona has weakened against both the dollar and the euro since the March Inflation Report. The recent weakening against the euro is partly a result of a change in expectations of key rates. The Riksbank's assessment is that the krona will appreciate in terms of the TCW index in the long term. As before, the assessment that the krona will strengthen is based on Sweden having relatively better growth prospects than other countries, and a strong financial position. However, the krona is expected to be weaker than was anticipated in the March Inflation Report. This forecast change is partly due to outcomes received, as well as to a larger downward revision in the forecast for long-term rates and GDP growth in Sweden than in other countries. The forecast for the TCW is being revised up to an average rate of 125.4 for 2005, 123.7 for 2006 and 123.2 for 2007. This is a weakening of approximately 1.8 index units for 2005, 1.2 index units for 2006 and 0.7 for 2007 in relation to the March Inflation Report (see Figure 6).

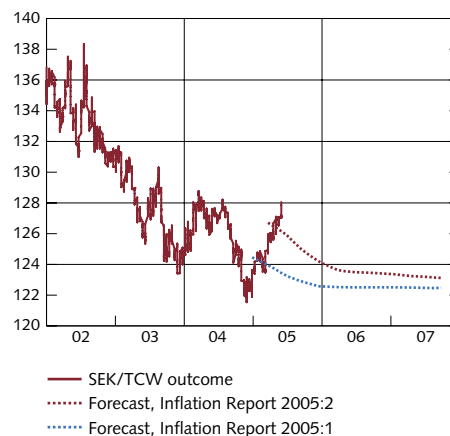
■ ■ Stable stock market growth.

There has been no significant change in the Swedish OMX index, the American S&P index or the German DAX index since March (see Figure 7). Last year's strong international economic activity led to companies increasing profits and strengthening their balance sheets. Growth in profits remained good during Q1 this year. At the same time, uncertainty over the strength of the recovery in international economic activity has increased somewhat. In Sweden the strongest results in Q1 were shown by traditional engineering companies and by telecom companies. However, most Swedish manufacturing companies state in their interim reports that orders from Europe have declined somewhat. As the recovery in international economic activity is expected to continue, however, most indications are that profits will continue to show good growth.

■ ■ Weaker real exchange rate.

All in all, developments in the financial markets have been more subdued as a result of economic activity appearing to be weaker than anticipated. Money market rates and long-term bond rates are very low, both in Sweden and abroad. Although the low interest rates are partly due to special factors, they support the recovery in economic activity. The fact that bank rates and corporate bond rates are rising in relation to government bond rates is only to be expected, given the strong downward pressure on risk premiums. Since the March Inflation Report, the krona exchange rate has weakened in comparison with competitor countries, and as inflation in Sweden is lower than that in other countries, relative prices in Sweden, the real exchange rate, have been weaker (see Figure 8). Developments in the

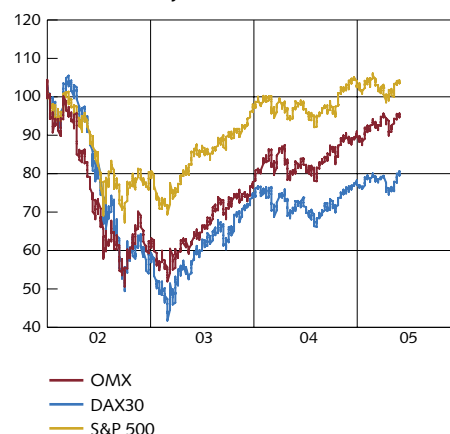
Figure 6. SEK/TCW exchange rate. Quarterly average, index 18 November 1992 = 100



Note. Outcome represents daily rates and forecasts refer to quarterly averages.

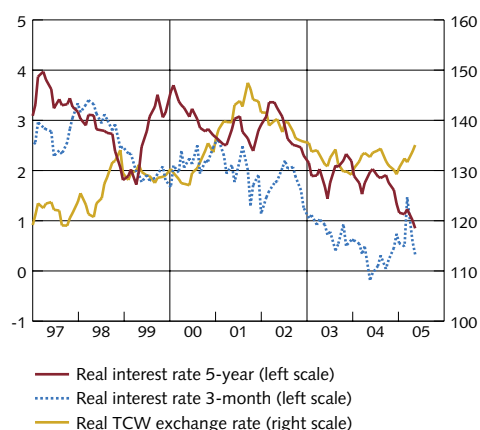
Source: The Riksbank.

Figure 7. Share price developments in Sweden, the United States and Germany. Index, 2 January 2002 = 100



Source: The Riksbank.

Figure 8. Real interest rate with 5-year and 3-month maturity respectively and real TCW exchange rate. Per cent and index, 18 November 1992 = 100



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

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

financial markets will thus contribute to counteracting the tendencies towards a slowdown in economic activity noted recently.

Revised forecasts since the March Inflation Report

- The forecast for the Swedish long-term rate is revised down to an average of 3.6 per cent during 2005, 4.2 per cent in 2006 and 4.7 per cent in 2007. This entails a reduction of around 0.4 percentage points for 2005 and 2006, and 0.3 percentage points for 2007, compared with the previous Inflation Report.
- The krona is expected to be weaker according to the TCW index, compared with the March report. The forecast for SEK/TCW is being revised up to an average rate of 125.4 for 2005, 123.7 for 2006 and 123.2 for 2007. This entails an increase of approximately 1.8 index units for 2005, 1.2 for 2006 and 0.7 for 2007.

International economic activity and inflation

Growth in the world economy remains good, but is now entering a more moderate phase. Investment and manufacturing output are increasing at a slower rate. This is partly due to normal cyclical fluctuations, but also to the higher oil price. International economic activity was somewhat slacker during the spring than the Riksbank forecast in March. This applies in particular to the euro area, where both the higher oil prices and the strengthening of the euro in recent years have contributed. The Riksbank has decided to revise down its forecast for growth in the world market in comparison with the March Inflation Report. At the same time, inflationary pressure is expected to be slightly higher this year and next year, due to the higher oil price.

■ ■ International economic activity slowing down.

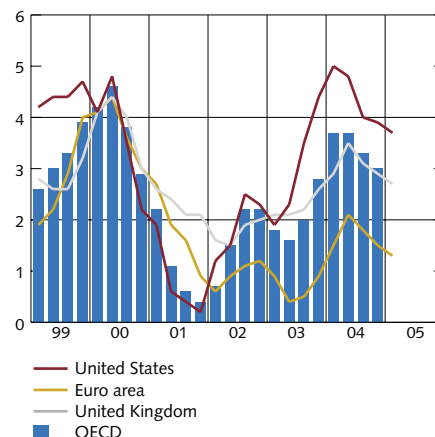
The world economy showed rapid growth last year with the global growth rate reaching a higher level than for several decades. However, the high rate declined during the second half of 2004, and the slackening trend continued during Q1 this year (see Figure 9). This applies to both the euro area and the United States. It is mainly investment that is rising at a somewhat slower rate, while consumption is showing a relatively stable increase. The March Inflation Report contained the assessment that international economic activity would enter a more moderate phase. Since the report was published there have been several signs that the slackening occurred sooner than expected. The rate of increase in production has slowed down, both in terms of GDP and of manufacturing output.

US growth has remained much stronger than growth in the euro area, as forecast by the Riksbank in the March Inflation Report. GDP in the United States was 3.7 per cent higher in Q1 than during the same period in 2004. This indicates that the US economy is experiencing a distinct growth phase. However, the strength of the growth rate has declined somewhat. Developments in investment and manufacturing output support this interpretation (see Figures 10 and 11). At the same time, employment is continuing to increase, primarily in the services sector, which will support consumption.

In the euro area the signs of a slowdown were stronger than expected during the spring. Growth in the region was 1.3 per cent in Q1, on an annual basis. The main loss of impetus has been in manufacturing. Statistics on manufacturing output show that the annual growth rate has declined gradually since last summer. During the spring the rate of increase came to a complete halt. One sign of a slowdown in output is that the purchasing managers' index for manufacturing fell to its lowest level for two years in May and is below 50, which is usually regarded as the cut-off point between expansion and contraction (see Figure 12).

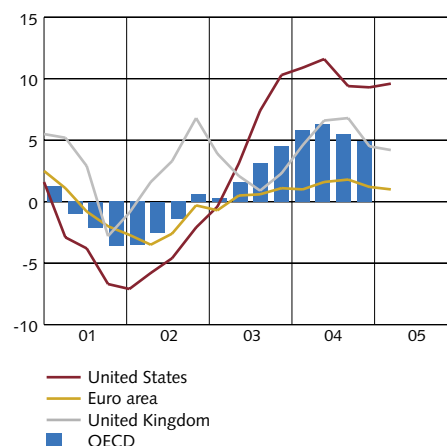
Many other indicators also point to a slowdown in the euro area

Figure 9. GDP in the United States, euro area, United Kingdom and OECD total. Annual percentage change



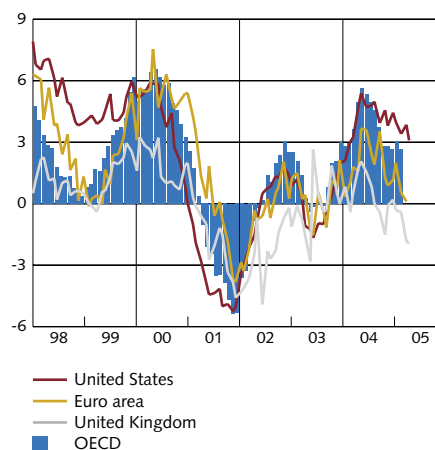
Sources: Bureau of Economic Analysis, Eurostat, OECD and the Office for National Statistics.

Figure 10. Investment in the United States, euro area, United Kingdom and OECD total. Annual percentage change



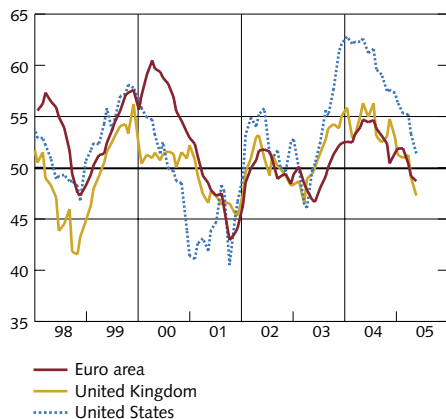
Sources: Bureau of Economic Analysis, Eurostat, OECD and the Office for National Statistics.

Figure 11. Manufacturing output in the United States, euro area, United Kingdom and OECD total. Annual percentage change



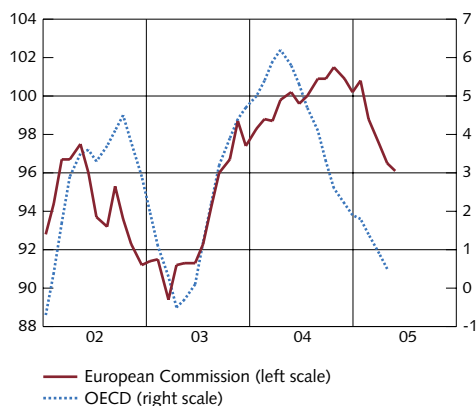
Sources: Eurostat, Federal Reserve, OECD and the Office for national statistics.

Figure 12. PMI in manufacturing: United States, euro area and United Kingdom. Index



Sources: Institute for Supply Management and NTC Research Ltd.

Figure 13. Economic indicators for the euro area. Index and annual percentage change respectively



Sources: European Commission and OECD.

(see Figure 13). The US purchasing managers index in manufacturing also reports a more subdued situation, although unlike its European counterpart it also expects a continued rise. This is understood from the fact that the index remains above the 50 mark (see Figure 12). Indicators of developments in the services sector show less of a slowdown than in manufacturing, both in the United States and Europe.

■ ■ **US retail trade stronger than European.**

There are still clear differences between growth in household consumption in the United States and that in the euro area. Household consumption in Europe showed weak growth, particularly in Germany and Italy. The difference between the United States and the euro area was clear in the turnover in the retail trade, for instance. In the United States, sales have increased by an average of 7 per cent in terms of current prices over the past twelve months. The corresponding figure in the euro area is around 1 per cent. The weak growth in private consumption in the euro area forms a contrast to developments in the United Kingdom and the Nordic countries. In Denmark, Finland and Norway household consumption is continuing to grow at a relatively rapid rate, compared with other European countries.

■ ■ **Economic expansion in Asia continues.**

Countries outside of the United States and Europe are to an increasing extent the motor for global growth. Economic activity in other countries has not slackened as much as it has in the United States and Europe. China's output continued to grow with undiminished strength during Q1. The country's trade balance showed one of the largest surpluses so far. Domestic demand also increased significantly. The large increase in exports is partly due to the abolition of the EU's textile quotas at the beginning of this year. This led to an increase in Chinese textile exports of 30 per cent during Q1.

In Japan the economic activity figures for Q1 show that GDP growth is rising again, after a slowdown during the second half of last year. Japanese companies have improved their balance sheets. Japan has also seen an improvement in the labour market and domestic demand is increasing.

■ ■ **Monetary policy remains expansionary.**

The conditions for relatively high international growth are good. Income and profit growth in the corporate sectors are at historically high levels in many countries. Companies' balance sheets have improved and the corporate sector's aggregate indebtedness is low in many OECD countries. Household income is increasing further and employment appears to be rising.

Low key interest rates in the western world are still stimulating economic activity. Short-term real interest rates in the United States

and Europe remain still close to zero, for instance. In the United States, however, a gradual increase in the key rate has begun. Since the previous Inflation Report the Federal Reserve has raised its rate by 0.5 percentage points to 3.0 per cent. One of the reasons given is that inflation is increasing. The ECB's rate has remained at 2 per cent for two years now. Nevertheless, domestic demand in the euro area has failed to accelerate.

Increased demand from Asia also indicates relatively high global GDP growth over the coming years, although this will diminish. The assessment is that global resource utilisation will increase.

■ ■ Higher oil price during forecast period.

The oil price has remained at around USD 50 per barrel since March. Forward rates in the oil market are also higher now than at the time the March Inflation Report was compiled. Given this, the Riksbank now believes that the oil price will be slightly higher than was previously forecast. The average price this year is expected to be USD 49 per barrel and just over USD 46 per barrel next year (see Figure 14). However, other commodity prices have fallen slightly.

■ ■ Price pressure weak despite higher oil prices.

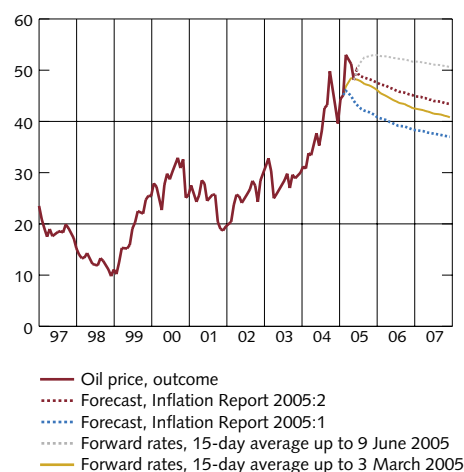
In general, inflation has risen slightly in international terms, partly due to rising oil prices. On the whole, however, inflationary pressure is still subdued. In the United States prices have risen more than in Europe; the US CPI inflation rate has been 3.0 per cent or higher since October last year. When adjusted for energy and foods, what is known as core inflation, the US inflation rate was lower, amounting to 2.2 per cent in April (see Figure 15). Since the end of 2003 the inflation rate has increased. In the United Kingdom, too, consumer prices have been increasing since autumn 2004.

Inflation in the euro area is around 2 per cent, and has remained around this figure since mid-2000. The inflation rate adjusted for energy and unprocessed foods was 1.4 per cent in April and has fallen over the past six months. A stronger euro and relatively weak domestic demand have probably contributed to subduing inflation in the euro area.

The high oil price has also affected many rapid-growth countries. Inflation in these countries has therefore risen more markedly. A higher forecast for oil prices is also one important explanation for the expectation that global producer prices will increase slightly more both this year and next year compared with the assessment in the previous Inflation Report. As oil prices are expected to fall again, the rate of increase in producer prices is expected to decline somewhat. However, the continued recovery in international economic activity is expected to sustain pressure on producer prices during the forecast period (see Figure 16).

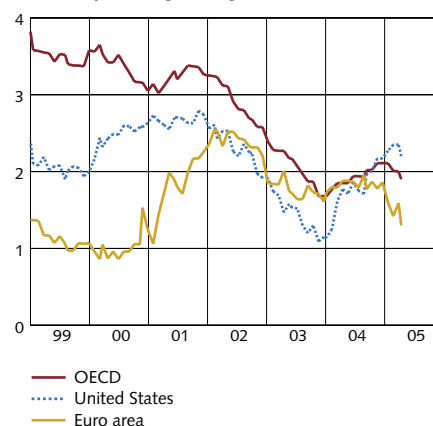
The Riksbank has weighed together producer prices from Sweden's most important trading partners in order to measure price

Figure 14. Oil prices, outcome and forecasts. USD



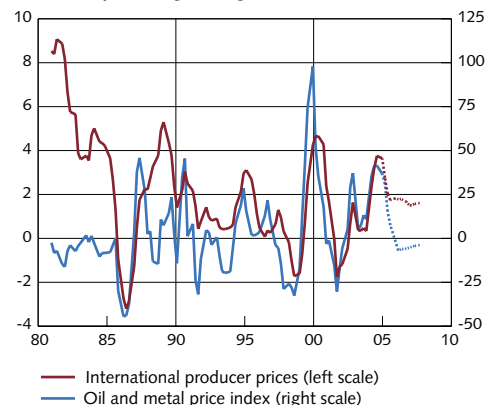
Sources: International Petroleum Exchange and the Riksbank.

Figure 15. CPI excluding energy and food in the euro area, the USA and the OECD. Annual percentage change



Source: OECD.

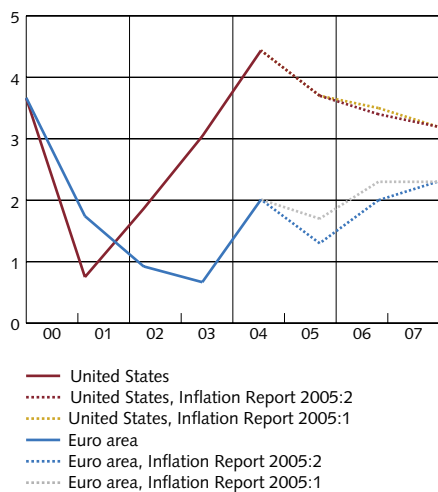
Figure 16. International producer prices of manufactured products and oil and metal price index: outcome and forecasts. Annual percentage change



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

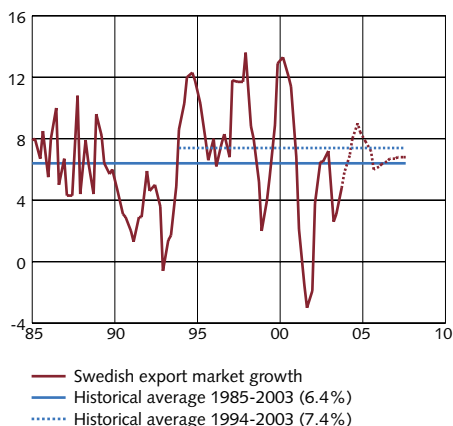
Sources: IMF, OECD and the Riksbank.

Figure 17. GDP for the United States and euro area. Annual percentage change



Note. The broken lines represent the Riksbank's forecasts.
Sources: Eurostat, US Department of Commerce and the Riksbank.

Figure 18. Swedish export market growth. Annual percentage change



Note. The results series is an aggregate of the real goods imports for the countries that make up the Swedish export market. The broken red line represents the Riksbank's forecast.
Sources: NIESR and the Riksbank.

trends for manufactured goods. However, there are several reasons why this measure does not fully reflect the prices in the world market. The main reason is that the increased element of imports from low-cost countries is not fully captured. The box "Why are Swedish import prices so low?" describes calculations using alternative measures of world market prices. One conclusion for the forecast in this Inflation Report is that the price Swedish importers pay is expected to be lower compared with previous estimates.

■ ■ Swedish export market growing at slower rate.

The Riksbank has now made a slight downward revision to its forecast for international growth, compared with the March Inflation Report. This is partly due to an assumption that the oil price will fall slightly less than was forecast earlier and partly due to the expectation that economic activity in the euro area will be slightly weaker (see Figure 17). Most indications in the United States are that the signs of weakness noted at the beginning of the year were only temporary. The view of future economic developments in the United States remains largely unchanged from the assessment made in March.

However, imports to Sweden's most important trading partners showed weak growth during Q1 this year. This, together with the slightly weaker growth means that the Riksbank has revised down its forecast for export market growth, particularly this year, but also next year.

Table 5. International conditions. Annual percentage change

	GDP				CPI			
	2004	2005	2006	2007	2004	2005	2006	2007
United States	4.4	3.7 (3.7)	3.4 (3.5)	3.2 (3.2)	2.7	2.6 (2.5)	2.4 (2.3)	2.5 (2.5)
Germany	1.6	0.9 (1.0)	1.6 (1.9)	2.0 (2.0)	1.8	1.5 (1.4)	1.4 (1.4)	1.5 (1.5)
United Kingdom	3.1	2.7 (2.8)	2.8 (2.9)	2.7 (2.7)	1.3	1.8 (1.8)	2.1 (2.1)	2.2 (2.2)
Denmark	2.4	1.8 (2.2)	2.3 (2.5)	2.0 (2.0)	0.9	1.7 (1.7)	1.9 (1.9)	1.8 (1.8)
Finland	3.3	2.0 (2.9)	2.4 (2.7)	2.3 (2.3)	0.1	1.2 (1.5)	1.7 (1.7)	1.7 (1.7)
Norway	3.4	3.5 (3.5)	2.8 (2.8)	2.5 (2.5)	0.5	1.3 (1.8)	2.0 (2.5)	2.5 (2.5)
Euro 12	2.0	1.3 (1.7)	2.0 (2.3)	2.3 (2.3)	2.1	2.0 (1.9)	1.8 (1.9)	1.8 (1.8)
TCW-weighted	2.6	2.0 (2.2)	2.3 (2.5)	2.4 (2.4)	1.6	1.7 (1.7)	1.8 (1.8)	1.9 (2.0)
OECD 19	3.2	2.5 (2.6)	2.6 (2.8)	2.7 (2.7)	2.0	1.9 (1.9)	1.9 (1.8)	2.1 (2.1)

	2004	2005	2006	2007
GDP World	5.0	3.9 (4.1)	3.9 (4.0)	3.5 (3.5)
Swedish export market growth	9.0	6.0 (7.0)	6.7 (6.9)	6.8 (6.8)
Global PPI	2.4	2.5 (2.3)	1.8 (1.7)	1.5 (1.6)
Crude oil price, annual average (USD/barrel Brent Blend)	38	48 (43)	46 (40)	44 (38)

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

Revisions since the March Inflation Report.

- The oil price forecast has been revised up for all of the forecast years.
- The higher oil price will subdue growth in the world economy. At the same time, inflation is expected to be slightly higher.
- Weaker GDP growth than expected during Q1 and indications of continuing weak growth also leads the Riksbank to revise down its growth forecast for the euro area.
- The Swedish export market is expected to grow at a slightly slower rate 2005 and 2006.

Economic developments in Sweden

The Swedish economy grew briskly in 2004, mainly thanks to high international demand. A slower growth rate this year was expected but GDP growth has slackened a lot more than anticipated at the beginning of the year. Both private and public consumption have turned out surprisingly low. The forecast for GDP growth in 2005 has been revised down sharply. A number of factors suggest that the slowdown is temporary and that growth in consumption and employment will pick up in the period ahead. Since there is a good deal of spare resources in the economy, particularly in terms of labour, wages and companies' costs are assumed to rise somewhat slower during the forecast period than estimated in March.

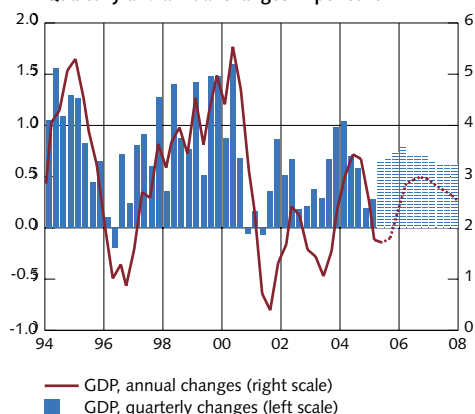
The economic upswing that began in Sweden in 2003 continued in 2004 (see Figure 19). Exports in particular grew rapidly. Towards the end of 2004 and at the start of 2005, there was a marked softening in economic activity. A slowdown was expected, chiefly because GDP growth abroad was assumed to slacken this year. However, there is evidence that the weakening has turned out sharper than anticipated. Among other things, key industrial sectors, such as the motor vehicle industry, seem to have been affected by lower demand. There has been no rise in employment as yet. In the first quarter this year, private consumption and exports rose surprisingly weakly while public consumption continued to decline. The number of hours worked also dropped surprisingly sharply, notably in the public sector. Business sector productivity continued to grow strongly. All in all, GDP rose considerably less than expected in the March Inflation Report.

The Riksbank deems the slowdown in economic activity to be temporary. Several factors indicate that this is the case. The firm growth in the world economy and in Swedish export markets is estimated to result in a renewed upturn in export growth in the period ahead. High capacity utilisation in manufacturing as regards plant and machinery, robust corporate balance sheets and low interest rates are expected to mean that the rise in investment that began last year will continue in 2005. Furthermore, the public sector is expected to boost its consumption as a result of improved finances.

In addition, there are a number of specific circumstances that make it difficult to interpret the developments in demand in the first quarter 2005, including how private consumption and foreign trade have been influenced by calendar effects.

A common pattern in a business cycle is that productivity growth gradually begins to diminish. For that reason, it is also likely that productivity growth will fall by degrees and that the number of employed will rise in coming years. An improved labour market, combined with low levels of interest rates, will in turn enable households to increase their consumption at a faster pace than that seen to date. Household incomes and wealth are expected to

Figure 19. GDP: outcomes and forecasts for calendar-adjusted and seasonally adjusted series. Quarterly and annual changes in per cent



Note. The broken line and bars represent the Riksbank's forecasts.

Source: Statistics Sweden and the Riksbank.

continue to grow, which means that the incentives for a high level of precautionary saving should also diminish.

The Riksbank forecasts GDP to increase by almost 2 per cent this year and by just less than 3 per cent in the coming years. Compared with the previous Inflation Report, the forecast for GDP growth this year has been revised down by 1.3 percentage points. That means that resource utilisation will not pick up this year but instead is more likely to fall. Thereafter, resource utilisation will rise relatively slowly.

In 2006 and 2007, the rate of wage increases is projected to rise due to improved labour market conditions, but at a slower rate than previously forecast. Coupled with slower productivity growth, this means that companies' labour costs are forecast to increase in the period ahead. Unit labour costs are anticipated to rise by just less than 2 per cent next year and by the same amount in 2007. The cost increases are forecast to turn out lower than expected in the previous Inflation Report, however.

Table 6. GDP by expenditure, volume changes.
Annual percentage change

GDP by expenditure	2004	2005	2006	2007
Private consumption	1.8	1.6 (2.7)	2.5 (3.0)	3.2 (3.3)
Public consumption	0.3	0.7 (1.2)	1.1 (1.4)	0.6 (0.6)
Gross fixed capital formation	5.5	7.4 (8.0)	5.4 (5.8)	4.8 (4.5)
Change in inventories	-0.3	0.1 (0.0)	0.0 (0.0)	0.0 (0.0)
Exports	10.5	4.5 (6.6)	6.0 (6.1)	6.3 (6.0)
Goods	9.8	4.3 (6.1)	6.3 (6.2)	6.4 (6.0)
Services	13.0	5.0 (8.0)	5.0 (6.0)	6.0 (6.0)
Imports	6.9	5.5 (7.5)	6.3 (6.6)	7.2 (6.7)
Goods	7.7	5.5 (7.6)	6.6 (7.0)	7.8 (7.2)
Services	4.9	5.5 (7.0)	5.5 (5.5)	5.5 (5.5)
GDP at market prices	3.6	1.9 (3.2)	2.7 (3.2)	2.7 (2.8)
Final domestic demand	1.9	2.1 (2.9)	2.4 (2.8)	2.5 (2.5)
Net exports	2.3	0.0 (0.2)	0.3 (0.3)	0.2 (0.2)

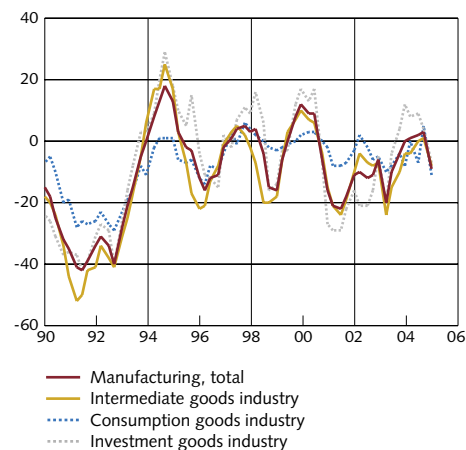
Note. The figures in parentheses are the forecasts in the previous Inflation Report. The data refer to actual, non-calendar-adjusted, growth rates.

Sources: Statistics Sweden and the Riksbank.

■ ■ Weaker manufacturing activity.

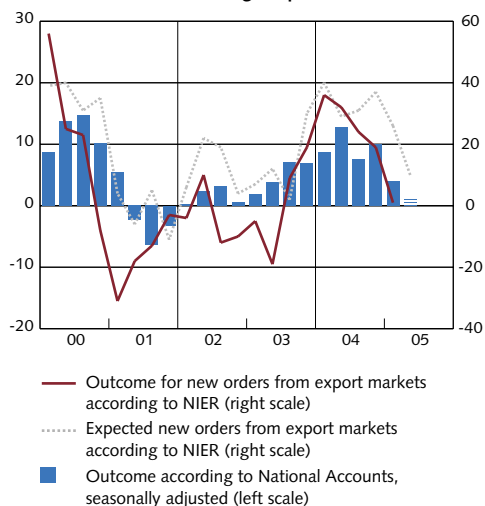
Manufacturing activity strengthened gradually in 2004. Since the previous Inflation Report, however, it has moderated more than anticipated. That manufacturing activity would slacken this year was expected, primarily against the background of a slowdown in global economic growth. But the National Institute of Economic Research's (NIER) business tendency surveys and purchasing managers index during the spring have shown a marked deterioration in manufacturing sentiment. Activity has weakened in a number of key industrial sectors. In construction and the greater part of the private services sector, though, sales growth continued to be vigorous. The same data show that these sectors are also strongly optimistic regarding the near-term outlook.

Figure 20. Confidence indicators for manufacturing and its components.
Seasonally adjusted balance



Source: NIER.

Figure 21. New orders in export industry and exports of goods: outcome and forecast. Balance and annual change in per cent



Note. The dashed bar represents the Riksbank's forecast for the second quarter.

Sources: NIER, Statistics Sweden and the Riksbank.

■ ■ Lower rate of increase in goods exports.

In the previous Inflation Report, the Riksbank forecast that Swedish exports of goods would grow slower this year than in 2004. The main reason was slacker market growth. Since then, there has been evidence that the slowdown in exports has turned out sharper than anticipated. In Q1, exports of goods rose by around 4 per cent compared with the same period a year earlier (see Figure 21). According to the foreign trade statistics, the slowdown has occurred mainly in the motor vehicle and engineering industries but also in the chemicals industry. The weakening in manufacturing activity and the fall in goods exports at the start of the year have prompted a downward revision of the forecast for export growth this year. On account of lower international growth, notably in the euro area, export market growth is forecast to be lower this year compared with last year. Looking ahead, world market growth is assumed to continue to develop steadily while the exchange rate is now forecast to be somewhat weaker compared with the previous Inflation Report. All in all, the forecast for exports in 2006 and 2007 has therefore been revised up somewhat. The forecast means that growth in Swedish exports of goods is expected to be a bit slower than export market growth.

The forecast for services exports has been revised down since the previous Inflation Report. The Riksbank estimates that services exports will grow at a slightly slower pace in the coming years compared with the steep rise last year. Merchanting accounted for a large proportion of growth in services exports in 2004. During the first quarter this year, the rate of increase in merchanting was somewhat lower than last year.¹

■ ■ Investment continuing upward.

Gross fixed capital formation increased by just over 5 per cent last year, having fallen for three consecutive years. The pick-up persisted into the first quarter, thereby constituting a continuation of the investment upswing that began in 2004. Investment activity is high in both manufacturing and other areas of the business sector. Residential investment was up fully 16 per cent. Public sector investment dropped, however.

The prospects for a continued rise in investment are deemed to be good: interest rates are low, corporate balance sheets are strong and profits high. Statistics Sweden's investment survey in May also showed that manufacturing firms have expansive investment plans. Moreover, business tendency data indicate that a comparatively large share of manufacturers consider the availability of plant capacity to be a limiting factor. The signals of poorer manufacturing activity are expected to slightly dampen investment, however. The prospects for

¹ Merchanting is when Swedish companies purchase products that have been manufactured abroad and subsequently resell them abroad without ever importing the products to Sweden.

increased investment are also bright in other areas of the business sector. But here, too, lower demand may mean somewhat weaker investment growth than forecast in March.

■ ■ Surprisingly low public consumption recently.

The Riksbank's assessment of the public finances is based on the proposals in the Government's Spring Fiscal Policy Bill in April. The Bill contained a number of steps that will affect public sector income and expenditure during the period 2005-2007. These include tax rebates to employers that hire long-term unemployed and a tax reduction for forest owners on account of the storm that hit southern Sweden at the beginning of this year. The new proposals will involve an increase in spending of around SEK 1 billion during 2005-2007 according to the Government's estimates. The measures in the Bill are financed in part by cutbacks in other areas.

The Riksbank forecasts public consumption in 2005 and 2006 to be somewhat lower than previously anticipated. That is chiefly a result of unexpectedly weak growth at the beginning of the year. The number of hours worked also dropped more than estimated. Public consumption has now been falling for a year. The balanced budget requirement for local governments has necessitated relatively substantial savings measures, which may be one explanation for the comparatively low outcomes for local government consumption and investment. Public sector consumption in the coming years is nevertheless anticipated to rise more than before. That is mainly because local government budgets are expected to show a surplus following several years in deficit. Some of these surpluses are estimated to result in an increased production of public services. Changed central government grants in the Budget Bill for 2005 and the Spring Fiscal Policy Bill suggest that central government consumption will grow next year. Political ambitions also point to a pick-up in consumption.

Table 7. Revised forecasts for public consumption and net lending.
Percentage change in volume

	2004	2005	2006	2007
Public consumption	0.3	0.7 (1.2)	1.1 (1.4)	0.6 (0.6)
Net lending as share of GDP	1.1	1.3 (1.5)	1.5 (1.6)	1.8 (1.8)

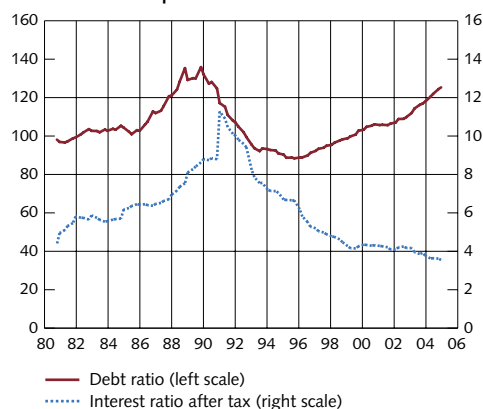
Note. The figures in parentheses are the forecasts in the previous Inflation Report.

Source: The Riksbank.

■ ■ Rise in household incomes.

Households' real disposable incomes are forecast to rise by around 2.5 per cent this year and next. It is mainly wage incomes that will increase faster when the labour market improves. In 2007, however, the income gains are expected to slow slightly. Among other things, that is because public sector transfers to households are not expected to rise as much. Compared with the previous forecast, incomes are

Figure 22. Households' debt ratio and interest ratio. Per cent of disposable income



Sources: Statistics Sweden and the Riksbank.

estimated to increase slower this year, chiefly owing to a slightly weaker labour market.

■ ■ Gradual pick-up in household consumption.

For several years now, households have been increasing their borrowing at a fast pace. Home loans in particular have been growing rapidly, reflecting the fact that households have been borrowing in large measure to purchase housing. That may also have resulted in the rapid rise in residential property prices in recent years. Notwithstanding the high debt levels, interest expenditures today comprise a historically low share of households' disposable incomes (see Figure 22).

The impact on household consumption of the build-up in debt is more uncertain. Although households are borrowing more, their consumption has not increased that much in the past few years. Instead, households have been saving a comparatively high share of their disposable incomes (see Figure 23). Since few new homes have been built, real saving, that is, mainly saving in residential property, has been low. On the other hand, households' financial saving has been high. One reason may be that the weak labour market and the sharp fluctuations in equity prices in recent years have heightened households' uncertainty regarding future consumption opportunities. This may have resulted in high precautionary saving.

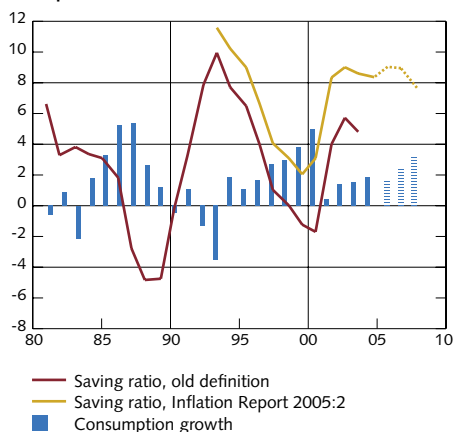
■ ■ Very weak consumption growth in first quarter.

Consumption in Q1 this year grew by a mere 0.5 per cent in annualised terms. The surprisingly weak outcome may reflect the continued weakness in the labour market. A breakdown of consumption into different categories shows that growth in goods consumption was markedly slower than before, at the same time as services consumption continued to grow weakly. Calendar effects during the first quarter – including the timing of Easter – have presumably contributed to the low increases in goods consumption. But even when taking account of that, the developments were appreciably weaker than anticipated.

■ ■ Low consumption of services.

Households' purchases of goods have been the primary factor behind their increased consumption in recent years. Households' consumption of services has increased considerably less (see Figure 24). The weak demand for services has been broad-based, encompassing several types of services (such as hotel and restaurant services, cultural services and telecommunications). In other countries as well, including the United Kingdom, household consumption of services has shown weak growth in recent years. One explanation may be that the low interest rate environment has stimulated the consumption of goods, notably durable goods, more than services consumption. However, the slowdown in services consumption began

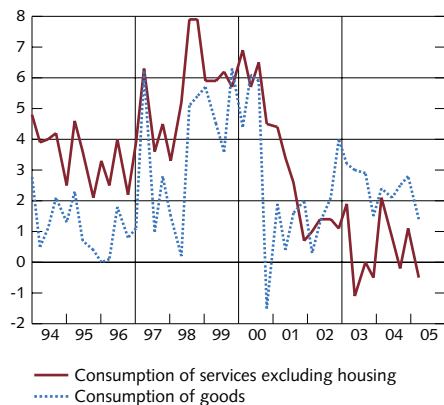
Figure 23. Household consumption growth and saving ratio: outcomes and forecasts. Annual percentage change and share of disposable income



Note. The broken line and bars represent the Riksbank's forecasts.

Sources: Statistics Sweden and the Riksbank.

Figure 24. Household consumption expenditure. Annual percentage change



Sources: Statistics Sweden and the Riksbank.

at the start of the current decade, and it has been weak ever since (see Table 8). That suggests that there are other causes as well. One may be that services prices have risen a lot faster than goods prices, reflecting the fact that goods are imported to a greater extent from low-price countries, while services are produced domestically and with a high labour intensity. As the table shows, there has been a similar development in Sweden and the United Kingdom since 2001. These tendencies may also persist in coming years if the price of goods in relation to services were to continue to drop.

Table 8. Rate of increase in employment, consumption of goods and services and price changes.
Annual percentage change

	1994–2000		2001–2004	
	Sweden	United Kingdom	Sweden	United Kingdom
Goods consumption	2.6	4.1	3.7	4.4
Services consumption	2.6	2.4	1.0	1.2
Goods prices	0.8	1.8	0.5	0.1
Services prices	2.3	3.1	2.8	3.9
Employment, goods producers	0.2	-0.6	-1.0	-1.8
Employment, services producers	2.3	2.2	0.8	1.4

Note. The annual rate of increase is the average for the period.

Sources: Office for National Statistics and Statistics Sweden.

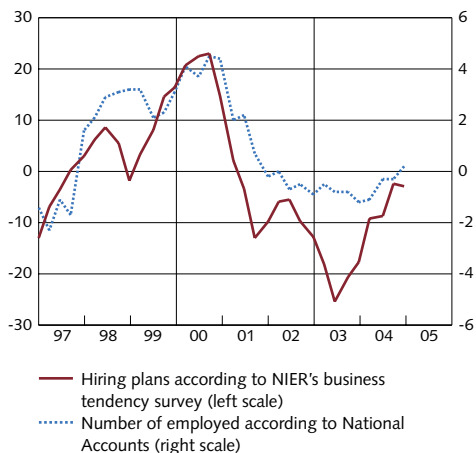
In spite of the modest rise in the first quarter, consumption is expected to pick up in the coming years. One reason is that incomes will increase when the number of employed rises. Another reason is that the saving ratio is high in an historical perspective. The proportion of incomes that households should save can vary over time, though. For example, demographic factors may suggest a continuation of a high rate of household saving for some time yet before the large 1940s generation retires. Another factor that may influence household saving is the need to ensure a high pension in the new pension system. To the extent that the high saving at least partially reflects precautionary saving on the part of households, however, an improved labour market should result in lower saving in the longer run. Rising asset prices and thereby firm growth in household wealth should have the same impact. The assessment of future developments is uncertain, though.

Compared with the previous Inflation Report, the forecasts for growth in consumption in 2005 and 2006 have been revised down. That is mainly due to the low outcome for consumption during the first quarter.

■ ■ Weaker demand implies lower imports.

Weaker demand and lower output this year influences the need to import goods. Growth in imports of goods is now assumed to be slower than forecast in the previous Inflation Report. The downward revision is warranted also in the light of outcomes for the first quarter. The forecast for the rest of the period is largely the same as before;

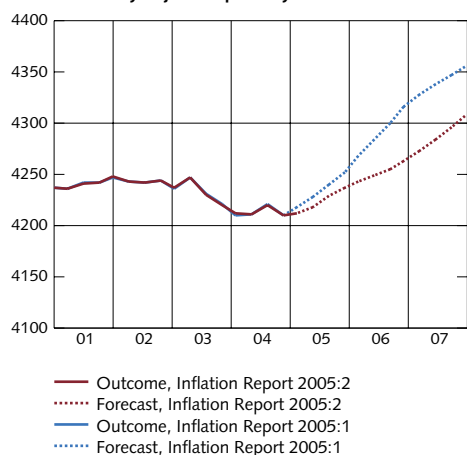
Figure 25. Number of employed in the business sector. Balance and annual percentage change



Note. Weighted average based on industries according to Statistics Sweden's labour statistics based on administrative sources (RAMS).

Sources: NIER, Statistics Sweden and the Riksbank.

Figure 26. Number of employed, 1000s of persons. Seasonally adjusted quarterly data



Sources: Statistics Sweden and the Riksbank.

that is, growth of some 7 per cent a year. Imports of services are expected, like previous years, to grow by somewhat less; just over 5 per cent a year.

■ ■ **Continued weak conditions in the labour market.**

The number of employed in the first quarter this year was roughly the same as in the same quarter a year earlier. Meanwhile, the labour force shrank by 14,000 people, or 0.3 per cent. That means that open unemployment fell by 0.3 percentage points, to 5.6 per cent of the labour force. The proportion of people in labour market policy programmes rose by 0.7 percentage points, to 3.0 per cent of the labour force.

Most factors still suggest that an improvement in the labour market is imminent, but the picture is not entirely unambiguous. The number of new job vacancies has continued to rise and the number of redundancy notices to fall, with the exception of March when temporary factors affected the statistics. Statistics Sweden's vacancy data indicates that the number of vacant jobs increased on an annual basis during the first quarter. On the other hand, companies' hiring plans suggest that the demand for labour in the business sector has levelled off (see Figure 25). Firms in the construction and private services sectors intend to continue hiring, however.

While many indicators have continued to be positive, employment in the first quarter was slightly weaker than anticipated. Given that GDP growth this year is forecast to turn out considerably lower, that points to a smaller rise in the number of employed than previously expected by the Riksbank. The proposals in the Spring Fiscal Policy Bill are estimated to boost registered employment somewhat, though, which means that the downward revision is smaller than would otherwise have been the case. The number of hours worked fell unexpectedly sharply in the first quarter. Coupled with the lower expected economic growth, hours worked are projected to be unchanged this year compared with last year. The forecasts for coming years have also been revised down.

There are many indications that companies will gradually meet increased demand by continuing to streamline production but also by hiring more labour. The Riksbank expects the number of regular jobs to begin to pick up, primarily in 2006 and 2007. Employment will rise most in the private services sector and the construction sector. The composition of growth in the coming years also supports the forecast of higher employment (see also the box "Future labour market developments – experiences in other countries and the significance of growth composition"). All in all, the weaker economic developments are anticipated to result in lower employment growth than forecast in the previous Inflation Report (see Figure 26). Nor is unemployment assumed to fall as much despite more extensive labour market policy programmes (see Table 9).

Table 9. The labour market. The forecasts are based on Statistics Sweden's labour force survey before the authority changed over to the new EU-harmonised Labour Force Survey. Annual percentage change

	2004	2005	2006	2007
Number of hours worked	0.9	0.0 (0.8)	0.7 (1.2)	0.9 (1.0)
Average hours worked by the employed	1.3	-0.3 (0.3)	0.0 (-0.2)	0.0 (-0.2)
Number of employed	-0.5	0.3 (0.5)	0.7 (1.4)	0.9 (1.2)
Labour force	0.2	0.0 (0.1)	0.3 (0.6)	0.4 (0.7)
Open unemployment (per cent of labour force)	5.5	5.2 (5.1)	4.9 (4.4)	4.5 (4.0)
Labour market policy programmes (per cent of labour force)	2.4	2.7 (2.5)	2.7 (2.5)	2.4 (2.1)

Note. The figures in parentheses are the forecasts in the previous Inflation Report. Hours worked and average hours worked are actual values.

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

Productivity growth still high.

Productivity has grown rapidly in recent years. This may reflect the cyclical upswing in some measure. Historically, it is usual that a period of intensive utilisation of existing labour at the start of an economic expansion be followed by a more subdued rate of productivity growth further into the business cycle when the number of employed picks up.

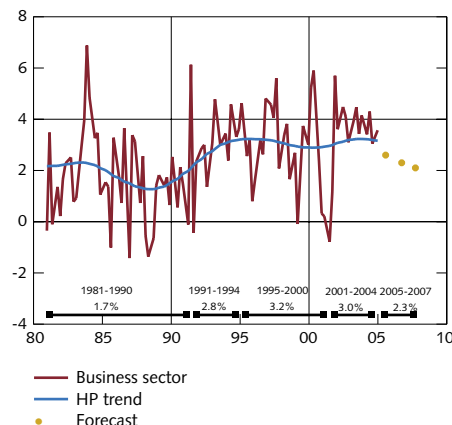
There are signs, however, that the high productivity growth has been uncommonly persistent. One possible cause is the large-scale investment in IT undertaken by companies at the end of the 1990s. Coupled with the relocation of certain activities to low-wage countries, this has enabled firms to enhance their production efficiency. That applies in particular to the manufacturing sector. In the services sector, too, productivity has increased gradually over the past decade, although the rate of growth there is still markedly slower than in manufacturing.

In the years ahead, productivity growth is forecast to slacken as the economic upswing progresses (see Figure 27). That is partly because the Riksbank sees limited scope for manufacturing firms to continue to boost output without expanding their workforces. Another reason is that the composition of GDP growth is shifting towards a smaller contribution from the export sector and a larger contribution from domestically oriented sectors with lower productivity growth, such as the services sector. The forecast for productivity is essentially the same as in the previous Inflation Report.

Normal resource utilisation not until the end of the forecast period.

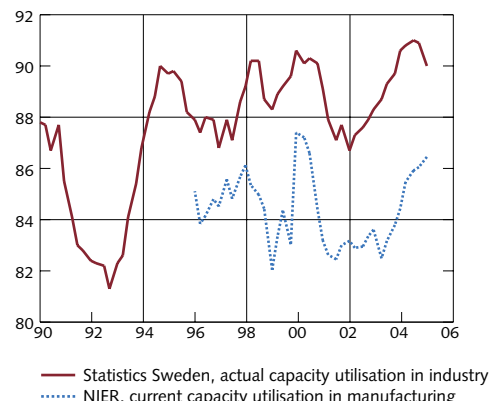
Capacity utilisation in industry reached historically high levels during the fourth quarter last year (see Figure 28). Statistics Sweden's survey shows that capacity utilisation in industry fell back somewhat in the first quarter this year. The NIER's quarterly business tendency survey in April, however, indicates that capacity utilisation continued to rise slightly in Q1. Plant and machinery is the factor that is limiting growth

Figure 27. Actual and trend productivity growth in the business sector since 1980. Annual percentage change



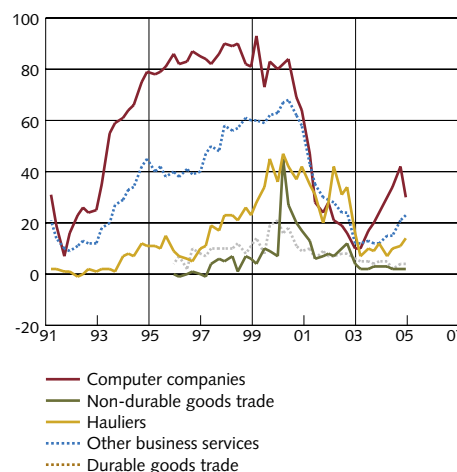
Sources: Statistics Sweden and the Riksbank.

Figure 28. Capacity utilisation in industry according to Statistics Sweden and the NIER. Per cent, seasonally adjusted



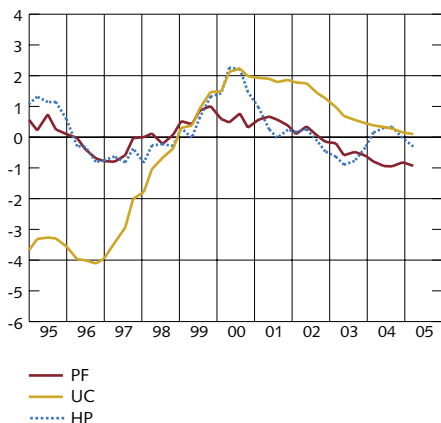
Sources: NIER and Statistics Sweden.

Figure 29. Labour shortages in different businesses in the services sector. Seasonally adjusted balance



Source: NIER.

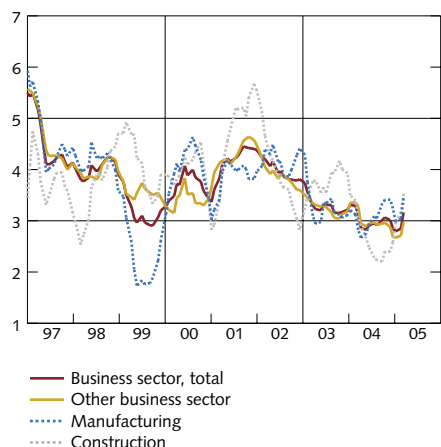
Figure 30. Econometric estimates of the output gap.
Per cent of potential GDP



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

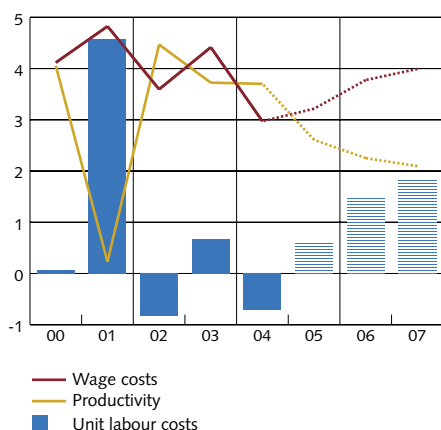
Sources: Statistics Sweden and the Riksbank.

Figure 31. Nominal hourly wages in business sector.
Annual percentage change



Sources: National Mediation Office and the Riksbank.

Figure 32. Unit labour costs in the business sector.
Annual percentage change



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

Sources: Statistics Sweden and the Riksbank.

in the manufacturing sector most. Unsurprisingly, there are still few companies reporting labour supply as a limiting factor.

There are no corresponding surveys for capacity utilisation in other areas of the economy. One way to indirectly measure capacity utilisation in these sectors is to look at data regarding how tight the labour situation is perceived to be, since in the services sector, for example, labour is the key factor of production. But labour shortages do not appear to be a significant problem for services firms either. As regards hauliers and the category 'other business services', the proportion of companies that are experiencing difficulty finding labour has risen a few percentage points, but at the same time shortages have eased for computer consultants and computer services firms (see Figure 29).

The Riksbank's overall assessment is that there are currently spare resources in the economy, notably unutilised labour. This assessment is supported by the latest National Accounts data and by estimates of the output gap. The estimates unanimously indicate that resource utilisation is still well below the level seen at the last cyclical peak in 2000 (see Figure 30). In 2006 and 2007, however, GDP growth is expected to exceed its long-term sustainable rate. That means that the slack in resource utilisation in the economy will gradually diminish. Given that GDP growth is now forecast to be weaker than the Riksbank expected in March, resource utilisation will continue to be low in 2005 and 2006. It is only towards the end of the forecast period that the idle resources in the economy are estimated to have been employed to a greater extent.

■ ■ **Rate of wage increases in business sector picked up slightly during first quarter.**

According to preliminary data for March from the National Mediation Office, hourly wages in the business sector rose by an average of 3.2 per cent during the first quarter. That was somewhat faster than anticipated. The largest increases were noted in manufacturing and construction, but also in the category 'other business sector' (see Figure 31). In the public sector, however, the rate of wage increases continued to moderate. As retroactive wage increases are paid, the rate of wage increases in the public sector may have to be revised up somewhat.

The weaker labour market forecast points to lower wage increments in 2006 and 2007 than forecast by the Riksbank in March. Wage inflation is expected to pick up slightly during the forecast period when employment rises and unemployment falls.

The forecast is founded on the premise that two changes during the 1990s that resulted in a fall in the rate of wage increases are permanent. The first is the focus of stabilisation policy since the early 1990s on budgetary balance and price stability, which has provided a credible nominal anchor in wage negotiations. The second is the fact that employers and trade unions take account of the prevailing

macroeconomic climate at the time of the negotiations. The starting point of this focus was the so-called Industrial Agreement, which was introduced in 1998. Another factor in the labour market that may have had some significance for wage developments in recent years is increased competition from foreign labour. It is not yet possible to determine the extent to which this has influenced and will influence the rate of wage increases, however.

■ ■ Weaker domestic cost pressures.

As in the previous Inflation Report, the Riksbank expects cost pressures in the economy to pick up during the forecast period (see Figure 32). When economic activity strengthens and productivity gains moderate, wage costs will rise (see Table 10). Owing to a weaker labour market and therefore somewhat lower hourly wage costs, however, unit labour costs are projected to increase at a slower rate compared with the assessment in the previous Inflation Report.

Table 10. Wages and unit labour costs.
Annual percentage change

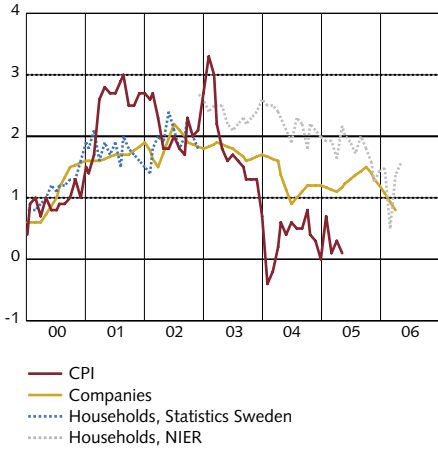
	2004	2005	2006	2007
Calendar-adjusted values*				
Nominal wage, business sector	3.0 (3.0)	3.3 (3.3)	3.6 (3.9)	3.9 (4.2)
Other wage costs, business sector (contribution)	0.0 (0.3)	-0.1 (0.1)	0.1 (0.1)	0.1 (0.1)
Total wage costs, business sector	3.0 (3.3)	3.2 (3.5)	3.8 (4.0)	4.0 (4.3)
Actual values				
Total wage costs, business sector (1)	1.9 (2.2)	3.2 (3.5)	4.2 (4.4)	4.0 (4.3)
Productivity, business sector (2)	3.7 (3.6)	2.6 (2.8)	2.3 (2.3)	2.1 (2.1)
Output, business sector	4.5 (4.3)	2.8 (3.7)	3.2 (3.6)	3.2 (3.3)
Number of hours worked, business sector	0.7 (0.7)	0.2 (0.8)	0.9 (1.3)	1.1 (1.1)
Unit labour costs, business sector (=1-2)	-1.8 (-1.4)	0.6 (0.7)	1.9 (2.1)	1.9 (2.2)

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

* The short-term wage statistics overestimate the actual growth in hourly wages in years with more working days than an average year (which has around 251 working days). Monthly-salaried employees therefore work a greater number of hours without being compensated through higher pay. That means that the actual development in hourly costs in the business sector is lower than the costs reported in the short-term wage statistics for 2004.

Sources: Statistics Sweden and the Riksbank.

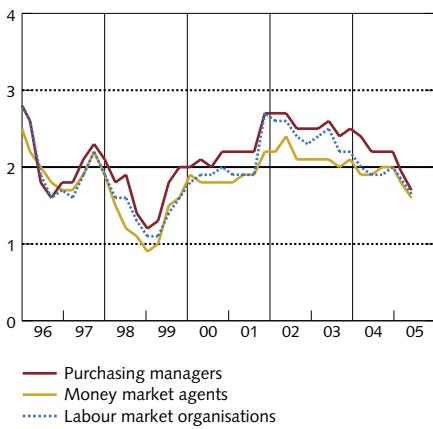
Figure 33. Actual CPI inflation and households' and companies' expectations of inflation one year ahead.
Annual percentage change



Note. The curves have been shifted ahead 12 months to coincide with the CPI outcomes to which the expectations refer.

Sources: NIER and Statistics Sweden.

Figure 34. Different agents' expectations of inflation two years ahead.
Per cent



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

Source: Prospera Research AB.

Inflation expectations

As part of its economic analysis the Riksbank takes account of companies' and households' expectations of inflation since they influence actual inflation through price and wage formation. These expectations in turn are affected by a host of different factors, such as current price pressures, the Riksbank's actions and communication, as well as the general economic situation.

Since the previous Inflation Report, households' expectations of inflation one year ahead, according to the National Institute of Economic Research's (NIER) most recent measurement, have risen from 1.4 per cent to 1.6 per cent. Their expectations in March, however, were anchored at 0.5 per cent one year ahead, which was a record low. Households may have been influenced by retail food chains' large-scale advertising campaigns announcing lower food prices. But the decline in expectations seems to be temporary, possibly because food prices have not gone down as much as expected.

In contrast to households, companies' inflation expectations have fallen. According to the NIER's survey in April, inflation is expected to be 0.8 per cent in one year, which is 0.4 percentage points lower than when the previous measurement was taken.

Prospera's latest survey points to lower inflation expectations among all surveyed groups compared with the survey noted in the previous Inflation Report. Inflation is now expected to average 1.4 per cent one year ahead (1.6 per cent in March), 1.7 per cent two years ahead (1.9 per cent in March) and 2.0 per cent in five years (2.1 per cent in March). The largest revisions have been made by employer organisations, which have lowered their expectations of inflation 5 years ahead by 0.4 percentage points, from 2.3 per cent to 1.9 per cent. The group has also revised down its shorter-term expectations, by 0.2 and 0.3 percentage points, respectively, one and two years ahead.

Prospera's survey, which was conducted on 25 May, also shows that money market agents expect the repo rate to remain at 2.0 per cent over the next three months. Compared with the previous survey, the agents' expectations regarding the repo rate one year ahead have been revised down by 0.25 percentage points and two years ahead by 0.5 percentage points.

Table 11. Expected rates of inflation according to Prospera's survey in May 2005, unless otherwise specified.
Per cent

Expected rate of inflation in 1 year

Money market agents	1.1 (1.2)
Employer organisations	1.4 (1.6)
Employee organisations	1.4 (1.5)
Purchasing managers, trade	1.5 (1.7)
Purchasing managers, manufacturing	1.6 (1.8)
Households (Consumer Survey) in May (February)	1.6 (1.5)
Companies (Business Tendency Survey) in April (January)	0.8 (1.2)

Expected rate of inflation in 2 years

Money market agents	1.6 (1.8)
Employer organisations	1.7 (2.0)
Employee organisations	1.6 (1.7)
Purchasing managers, trade	1.6 (1.9)
Purchasing managers, manufacturing	1.8 (2.0)

Expected rate of inflation in 5 years

Money market agents	1.9 (2.0)
Employer organisations	1.9 (2.3)
Employee organisations	2.0 (2.0)
Purchasing managers, trade	1.9 (2.1)
Purchasing managers, manufacturing	2.1 (2.1)

Sources: NIER and Prospera Research AB.

Revised forecasts since the March Inflation Report

- The GDP forecast has been revised down, mainly for 2005 but also for 2006.
- Growth in private consumption in 2005 has been revised down due to weaker outcomes during the first quarter and weaker labour market conditions.
- Growth in public consumption has been revised down somewhat, chiefly because of a weaker-than-expected outcome for the first quarter this year.
- Signals of weaker manufacturing activity have prompted a downward revision of the investment forecast for manufacturing and other areas of the business sector in the near term.
- Growth in exports of goods and services in 2005 has been revised down due to lower export market growth.
- Lower domestic output means that growth in imports this year has been revised down.
- The rate of increase in hours worked in the business sector in 2005 and 2006 has been revised down on account of weaker output growth this year and next.
- A somewhat weaker labour market implies that hourly wages are forecast to increase less in 2006 and 2007.
- Lower wage increases mean that unit labour costs in the business sector have been revised down slightly for the entire forecast period.

Future labour market developments – experiences in other countries and the significance of growth composition

The question of what significance the composition of GDP growth has had for the relatively weak labour market growth is much debated at present. Interest in this question has intensified due to indications of a rebound in the labour markets of our neighbouring Nordic countries, where growth has not been as export-driven as in Sweden. This box describes Swedish labour market trends, particularly during the most recent business cycle, from an international perspective and discusses the relationship between the components of growth and employment trends.

Introduction

The main scenario in this Inflation Report predicts a gradual improvement in the labour market over the coming years. Although growth forecasts and labour market forecasts have been revised down somewhat, the assumption is still that the labour market will gradually improve. The forecast in the main scenario is for employment to increase by more than 2 per cent from now until the end of 2007.

While labour market indicators such as redundancy notices, new job vacancies and recruitment plans, particularly in the construction and services sectors, indicate an improvement in the labour market in the near future, the fact still remains that the employment outcome in Q1 was weaker than expected. Last year's strong growth was not reflected in any tangible improvements in employment and unemployment figures. This increases the uncertainty over the recovery in the labour market once economic activity begins to accelerate. The box contains a discussion of developments in the Swedish labour market from an international perspective. What conclusions can we draw from the experiences of other countries and is there reason to believe that developments will be similar or different in Sweden? More specifically, can a comparison between Sweden and other countries regarding the recent composition of GDP growth

contribute to a greater understanding of developments in the Swedish labour market?

The Swedish labour market and developments in other countries

As in Sweden, growth in Finland and Norway was strong during 2004. However, unlike Sweden, the labour markets in these countries have shown an upturn during 2003-2004. Figures B1-B3 compare developments in unemployment and employment in Sweden from 2000 onwards with developments in a sample of countries consisting of the other Nordic countries (excluding Iceland), Germany, the United Kingdom and the United States.

The figures show that developments have been relatively heterogeneous. With regard to unemployment, developments in Finland and the United Kingdom have been positive, with a decline in unemployment during this period. However, in other countries unemployment has risen. Developments in the United States have been the most dramatic in this respect, but there has been a clear improvement here towards the end of the period. In Sweden, unemployment declined initially, but then increased at the end of the period. It is also worth noting that the indications of an improvement are clearer in other countries than in Sweden, with the possible exception of Germany.

With regard to the number of persons employed, there was a rapid increase at the beginning of the period in both Sweden and Finland. This was followed by a slackening in Finland and an actual decline in Sweden. However, what has been characteristic for the Swedish labour market during this period is the high level of absence due to sickness, which has reduced the percentage of employed persons contributing to the number of hours worked in the economy. The Figure also includes developments in the number of persons employed in Sweden excluding those absent due to sickness, in order to see how this may affect the comparison with other countries.

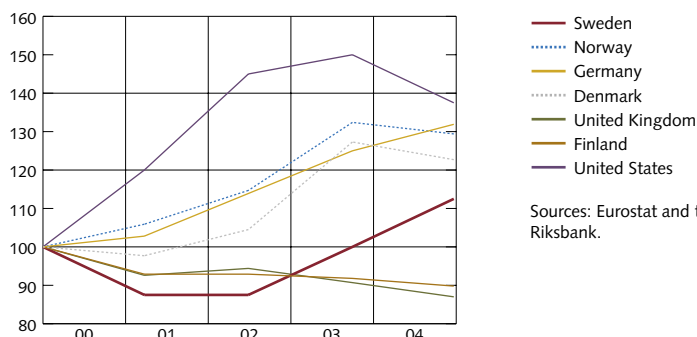
When sickness absence is taken into account, developments in Swedish employment look slightly weaker. However, it is interesting to note that even when taking into account sickness absence, the number of employed has still increased in Sweden compared with the peak in economic activity in 2000. Denmark and Germany have experienced a slightly poorer development with a decline in the number of employed during the period. The level in Norway is roughly the same as at the beginning of the period. As in the case of unemployment, however, the indications of a turnaround in employment are more tangible in these countries than in Sweden.

A comparison of the number of persons employed is interesting from a business-cycle perspective, but does not provide a complete picture of employment trends, as the size of the population varies from one country to another. Figure B3 shows that the picture is roughly the same when comparing the degree of employment, with the difference that developments in general look somewhat poorer in most countries. In Sweden, for instance, there has been a clear decline during the period and even in Norway and the United States the situation looks much weaker than in Figure B2.

The focus above has been on developments during the past five-year period. This does not take into account the fact that countries may be in different phases of the business cycle at different times. One interesting question is whether it is possible to draw any conclusions regarding future developments in Sweden on the basis of a comparison with countries that are usually ahead of Sweden in the business cycle.

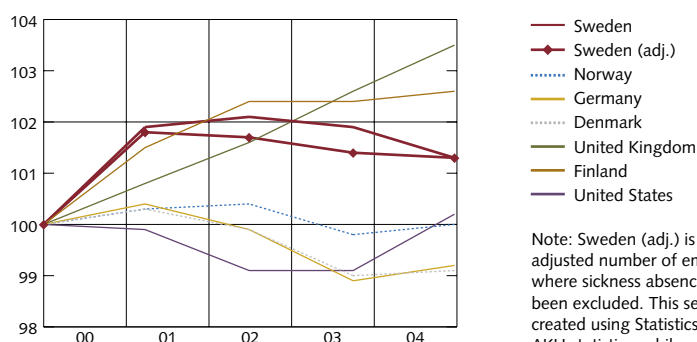
The obvious first question is to determine which countries are normally ahead of Sweden in the business cycle. One difficulty in this context is that there is no clear-cut economic measure that can be used for making comparisons. A simple and fairly common method is to use a statistical filter to separate the cyclical variation in GDP from the trend and use this as a measure of economic activity. This

Figure B1. Harmonised unemployment in a sample of countries 2000–2004. index (2000 = 100)



Sources: Eurostat and the Riksbank.

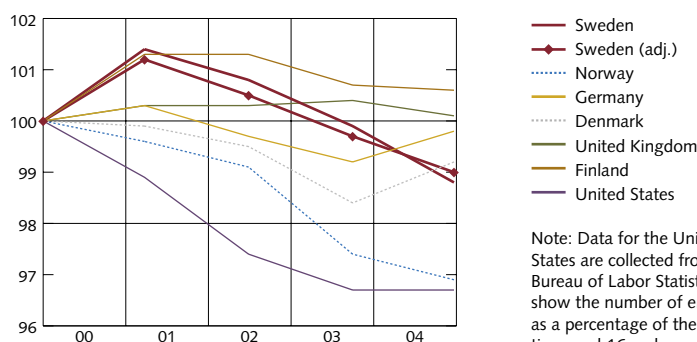
Figure B2. Number of unemployed in a sample of countries 2000–2004. index (2000 = 100)



Note: Sweden (adj.) is the adjusted number of employed, where sickness absence has been excluded. This series was created using Statistics Sweden's AKU statistics, while other data are from Eurostat's database.

Sources: Eurostat, Statistics Sweden and the Riksbank.

Figure B3. Number of employed in relation to the population aged 15–64 in 2000–2004. index (2000 = 100)



Note: Data for the United States are collected from the Bureau of Labor Statistics and show the number of employed as a percentage of the population aged 16 and over taken from the Current Population Survey. Sweden (adj.) is the difference between the number of employed and the number of sickness absentees in relation to the population aged 16–64. These data are taken from Statistics Sweden's AKU statistics. Other series are from Eurostat's database.

Sources: Bureau of Labor Statistics, Eurostat, Statistics Sweden and the Riksbank.

type of cyclical GDP measure has been created for the same sample of countries discussed above and Table B1 reports the correlation between this cyclical GDP measure for Sweden and the other countries.

The table calculates correlations for different displacements in the Swedish business cycle forward in time. A high correlation in the columns "+1" to "+8" means that the other

country is ahead of the Swedish business cycle. However, if the correlation is at its highest without any time displacement (in column "0"), the countries' business cycles are synchronised and peak and trough at the same time.

The results in Table B1 indicate that both the United States and the United Kingdom are ahead of Sweden in the business cycle. The exact time lag in the business cycles of these countries has of course varied considerably from one cycle to another.² The results here indicate that the Swedish business cycle is 1-1½ years

after the American one and ½-1 year after the British one. With regard to the Nordic countries, Denmark is synchronised with Sweden and the Finnish cycle is also in a similar phase to the Swedish one – possibly a quarter or so ahead. On the other hand, the Norwegian and Swedish business cycles do not appear to have any similar synchronisation.³

Given the time lag of the Swedish business cycle in comparison with the US and British cycles, it may be interesting to gain an idea of what recent economic data in these

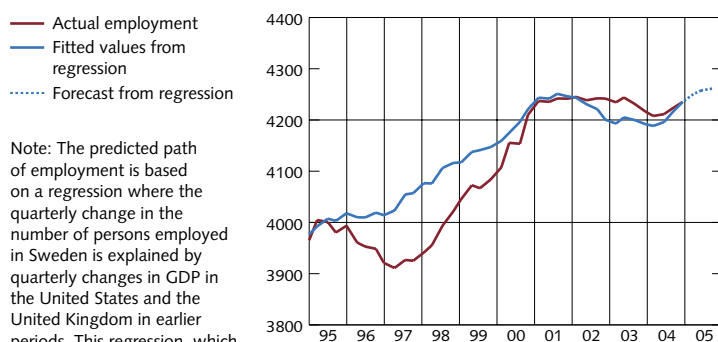
Table B1. Correlation between cyclical GDP in Sweden and other countries, 1990 Q1–2004 Q4.

	Cyclical GDP in Sweden in quarters:								
	0	+1	+2	+3	+4	+5	+6	+7	+8
Denmark	0.6	0.6	0.4	0.2	0.0	-0.2	-0.3	-0.4	-0.5
Finland	0.6	0.6	0.6	0.5	0.4	0.3	0.1	0.0	-0.2
Germany	0.7	0.5	0.3	0.1	-0.2	-0.3	-0.4	-0.3	-0.3
Norway	0.0	-0.1	-0.1	-0.3	-0.4	-0.4	-0.4	-0.3	-0.2
United Kingdom	0.6	0.7	0.7	0.7	0.6	0.5	0.4	0.2	0.0
United States	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.4

Note: Cyclical GDP is created by filtering the GDP series in the respective country with a band-pass filter, see Christiano, L. and T. Fitzgerald, "The Band Pass Filter", *International Economic Review* 44, 2003, 435-465. The filter separates the cyclical part of GDP that varies in a horizon of 1.5 to 8 years, which is considered the normal time interval for business cycles. The calculations for Germany apply to the period 1991 Q1 to 2004 Q4. The most recent revision in the Swedish National Accounts data for 2004 has not been included in these calculations.

Sources: OECD and the Riksbank.

Figure B4. Number of persons employed and the number of persons employed predicted by the regression model 1995 Q1-2005 Q3. Thousands of persons



Note: The predicted path of employment is based on a regression where the quarterly change in the number of persons employed in Sweden is explained by quarterly changes in GDP in the United States and the United Kingdom in earlier periods. This regression, which is estimated in differences and using data for the period 1995 Q1-2004 Q4, is as follows: $\Delta \ln N(t) = -0.01 * \text{constant} + 0.56 * \Delta \ln \text{BNP}(t-3)_{\text{UK}} + 0.37 * \Delta \ln \text{BNP}(t-5)_{\text{USA}}$. All coefficients are statistically significant. Adjusted R2 = 0.4 and the standard error for the regression = 0.0037.

Sources: Statistics Sweden and the Riksbank.

countries might imply for the development of the Swedish economy, in particular the Swedish labour market. Figure B4 shows both the actual development in the number of

persons employed in Sweden and the predicted employment figures according to a simple regression model where Swedish employment is explained by GDP growth in the United States and the United Kingdom in earlier periods. This is of course a very uncertain indicator of future developments in Sweden and should not be regarded as an alternative forecast for employment in Sweden; rather as an alternative method of illustrating the correlations between the Swedish business cycle and the leading countries' cycles.

Given that the size of the correlations in Table B1 is not very large, it is not surprising that the fit of this model of Swedish employment is not the best possible. However, the trends in employment are captured relatively well – both

- It is also possible that structural factors have changed the pattern between periods. The choice of time period may therefore affect the results in Table B1. However, recursively-calculated correlations for different periods starting in 1970 show that the results are relatively stable. For Denmark, Finland and Norway the correlation pattern does not change much over the periods. With regard to the United Kingdom, the Swedish time lag becomes somewhat larger if the 1970s are included in the calculations. The results that show the largest difference are for the United States, particularly if the late 1970s and early 1980s are included. However, the results are stable if the calculations are limited to the period after the mid-1980s and the correlations also become larger.
- There has been no real examination of whether the reverse might apply, i.e. that the Swedish business cycle might be ahead of those in the other countries, but this is also (in some cases) a possibility.

the upturn from 1997 and the slowdown after 2001 are included in the fitted employment series. The Figure also shows that the predictions for 2005 Q1 – 2005 Q3, which are solely based on the information on GDP growth in the United States and the United Kingdom in recent quarters, indicate a continued rise in the number of persons employed. Given that the upturn continues, this is an indication that the Swedish labour market should also improve in the near future.⁴ This result should of course be interpreted with caution. For instance, current structural factors can change the traditional patterns this prediction reflects.

The Swedish labour market and the composition of GDP growth

One of the factors pointed out as a possible explanation as to why the turnaround in the Swedish labour market is taking so long, while it has already begun in other countries, is the difference in the composition of GDP growth. Table B2 shows the contributions from different expenditure components to Swedish GDP growth during the period 2000-2004. The table shows that exports have accounted for a considerable share of growth, while for instance household consumption and investment have played a more modest role. The export industry is more capital intensive than labour intensive. It can therefore be assumed that the increase in employment is greater when investment and consumption replace exports as the motor in the economic upturn. One of the reasons for this is

that these components have a stronger link to the production of services.

Table B3 reports the contribution from total consumption and exports in other countries for the same period as the comparison above. The table shows that there is some support for the assessment that employment should pick up when consumption and investment accelerate. In the United Kingdom and Finland, where employment was sustained during the most recent economic downturn (see Figure B2), the contribution from consumption in general was higher than in Sweden, Denmark and Germany. It is also worth noting that consumption in Denmark picked up in 2004, at the same time as employment showed an upturn. However, developments in Norway and the United States are a little more difficult to interpret. The contribution from consumption in both countries has been relatively high during the period, but Figure B2 shows that employment nevertheless fell, particularly in the United States. The relationship between employment and the relative significance of recent consumption and export patterns is therefore not clear-cut.

This raises questions as to how the components of GDP expenditure and employment normally covary over the business cycle. Table B4 describes the correlations between contributions from different expenditure components and the change in the number of persons employed in the manufacturing industry and service industries

Table B2. Contributions to GDP growth from different components of expenditure and GDP growth 2000–2004.
Percentage points and percentage change

	2000	2001	2002	2003	2004
Private consumption	2.4	0.2	0.7	0.7	0.9
Public consumption	-0.3	0.2	0.6	0.2	0.1
Gross fixed capital formation	1.0	-0.2	-0.5	-0.3	0.9
Inventory investment	0.5	-0.5	-0.2	0.4	-0.3
Exports	4.9	0.2	0.6	2.2	4.6
Imports	-4.1	1.0	0.7	-1.8	-2.6
GDP growth	4.3	1.0	2.0	1.5	3.6

Note: Due to round-off errors, the contributions from the components do not exactly add up to the GDP growth each year.

Sources: Statistics Sweden and the Riksbank.

⁴ A necessary condition for this is that employment in principle follows the same pattern throughout a business cycle in the different countries. Calculations of correlations similar to those in Table B1 but between cyclical GDP and cyclical employment in the respective countries show that this appears to be the case. In most of the countries employment lags 1-2 quarters behind GDP. In Finland and Norway the time lag is possibly a quarter or so longer.

in Sweden. The correlations are calculated according to different time displacements for the change in employment. A high positive correlation between the change in employment shifted forward in time (+1 quarter, +2 quarters, etc.) and the contribution from a particular component means that the two covary, but with a time lag in employment. If the correlation is high when the change in employment is shifted back in time (-1 quarter, -2 quarters, etc.) it is instead the development of the contribution that lags behind.

It is important to observe that correlations cannot be interpreted as causal relationships, for instance, that an increased contribution from domestic consumption leads to an improvement in employment. Consumption and employment are driven by the overall supply and demand situation and there are links in both directions –

an increase in household consumption stimulates employment and an increase in the number of persons employed in turn gives higher household consumption. The covariation this causes is reflected in the correlation measure.

Table B4 shows that employment growth in both the manufacturing industry and the service industries is lagging behind exports by up to one year. On the other hand, employment is better synchronised with household consumption and business sector investment. In both of these cases the highest correlations are centred on quarter “zero”, that is, no time displacement, or possibly 1-2 quarters forward with regard to the service industries. The results also indicate that the covariation with household consumption is relatively larger for employment in the service industries than in the manufacturing industry.

One interpretation of the results in Table

Table B3. Contributions from total consumption and exports to GDP growth in a sample of countries 2000–2004.
Percentage points

Contribution from		2000	2001	2002	2003	2004
Total consumption	Denmark	-0.1	0.6	0.8	0.7	2.2
	Finland	1.5	1.4	1.5	2.4	2.0
	Germany	1.4	1.2	0.0	0.0	-0.2
	Norway	2.2	2.1	2.3	1.8	2.6
	United Kingdom	3.4	2.4	2.9	2.2	3.1
	United States	3.4	2.2	2.7	2.7	2.8
Exports	Denmark	5.5	2.0	2.2	-0.8	1.9
	Finland	8.2	-0.4	2.4	0.7	1.7
	Germany	4.1	1.9	1.4	0.7	3.2
	Norway	1.6	2.0	-0.3	0.6	0.5
	United Kingdom	3.0	1.0	0.0	0.3	1.0
	United States	1.1	-0.7	-0.3	0.2	1.0

Source: Eurostat.

B4 is thus that an upturn in economic activity in Sweden normally begins with an increase in exports as economic activity among important trading partners improves. However, this has no immediate impact on employment in manufacturing; production increases initially through greater resource utilisation, that is, the number of hours worked increases. As the economic upturn continues, employment picks up in earnest in both manufacturing and services, while domestic consumption and investment increase and take over as the motor

in the economic upswing. The total picture is thus in line with the pattern usually ascribed to the business cycle in Sweden. According to the main scenario, uncertainty over the strength of the future economic upswing has increased, but there are nevertheless many indications that employment will rise during the coming two years as domestic demand and production increase. This scenario is thus in line with the traditional patterns described by the correlations in Table B4.

Table B4. Correlation between the contribution of different components of expenditure to GDP growth and time displacement for changes in employment in the manufacturing and service industries 1988 Q1–2004 Q4.

Change in employment in the manufacturing industry									
Time displacement, number of quarters	-4	-3	-2	-1	0	+1	+2	+3	+4
Contribution from:									
Household consumption	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.3
Business sector investment	0.5	0.7	0.8	0.8	0.9	0.9	0.8	0.6	0.5
Exports	-0.1	0.0	0.1	0.2	0.4	0.5	0.6	0.6	0.6
Change in employment in the service industries									
Time displacement, number of quarters	-4	-3	-2	-1	0	+1	+2	+3	+4
Contribution from:									
Household consumption	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.6
Business sector investment	0.3	0.4	0.6	0.7	0.7	0.8	0.8	0.7	0.5
Exports	-0.3	-0.2	-0.1	0.0	0.2	0.4	0.5	0.5	0.5

Note: Correlations calculated between contributions to GDP growth, expressed as percentage points, and the change in employment expressed as an annual percentage change. Changes in employment are calculated on the basis of AKU statistics. The manufacturing industry here includes the manufacturing and mining industries and electricity, gas, heating and water works. The service industries are defined as the total of trade, transport, storage, communication, personal and cultural services, sanitation, credit institutions, property management and business services. The most recent revision in the Swedish National Accounts data for 2004 has not been included in these calculations.

Sources: Statistics Sweden and the Riksbank.

Why are Swedish import prices so low?

Inflation is currently low and below the Riksbank's target level. There are several reasons for this. One is that import prices have fallen in recent years. This is partly due to subdued price trends in consumer goods on the international market. In addition, the krona appreciated more or less continuously during the period 2001 to 2004, which has had a time-lagged effect on prices. The fall in import prices is also due to the fact that there is a continuous shift in imports towards cheaper producer countries. Preliminary estimates indicate that this shift may have contributed to bringing down import prices paid by Swedish importers by a couple of percentage points in 2004.

Introduction

There are many reasons why inflation in Sweden has been so low in recent years. For instance, the Riksbank's interest rate cuts affect mortgage costs, which comprise an important item in the consumer price index (CPI). The relatively substantial easing of the monetary stance that began at the end of 2002 and continued during 2003 and 2004 has thus contributed to keeping down households' interest costs and thereby to the low CPI inflation rate. Another contribution

comes from the rise in electricity prices to record-high levels at the end of 2002/beginning of 2003 and the subsequent fall in these prices. Although even when adjusted for these transitory effects, inflation has been very low since the beginning of 2003 (see Figure B5).

By analysing the development of different sub-indexes of CPI, it is possible to examine more closely what lies behind the low inflation rate. CPI can be divided into prices of goods and services, adjusted for oil, electricity and mortgage rates. It then becomes clear that the primary explanation for the low CPI inflation rate is the trend in goods prices (see Figure B6).

Consumer goods are either domestically produced or imported from other countries. Price trends for both of these groups have been subdued. Prices of domestically-produced goods have fallen since mid-2004, with the exception of a couple of months at the beginning of the year. Import prices have been even weaker, with a falling trend since mid-2003 (see Figure B7).

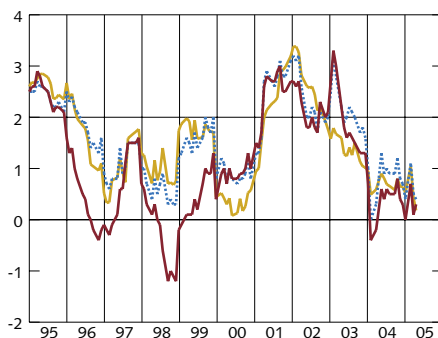
Consumer prices for imported goods are determined partly by the importers' costs for the goods and partly by events in the sectors mediating the goods from the importer to the consumer. The following article contains a discussion of what determines the development of import prices in the producer segment.

Figure B5. Inflation according to CPI, UND1X and UND1X excluding energy. Annual percentage change

— CPI
..... UND1X
— UND1X excluding energy

Note. The inflation measures are calculated according to a new method.

Sources: Statistics Sweden and the Riksbank.



Several factors affect import prices

Developments in Swedish import prices in foreign currencies depend on the rate of price increase in the countries from which Sweden imports, as well as the change in these countries' share of Sweden's total imports. An increased share of imports from countries with a low inflation rate or lower prices will subdue the rate of price increase for Swedish imports. The impact on import prices in SEK is also affected by exchange rate developments. If the krona strengthens, an increase in international export prices will have less effect on import prices in Swedish kronor, while the effect will be greater if the krona weakens.

In recent years price trends in consumer goods on the international markets have been subdued. At the same time, the krona appreciated more or less continuously during the period 2001 to 2004. This has contributed to a fall in import prices in Swedish kronor. During the first half of 2004, the krona weakened again, while prices of imported goods continued to fall. This may to some extent be due to a delayed impact from exchange rate fluctuations. As world trade has increased and countries like China and India have been integrated into the world economy, there has also been a continuous shift in Swedish imports towards cheaper countries. This has also had an impact.

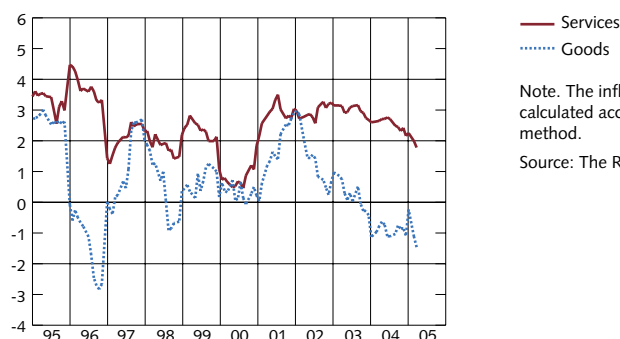
Problems with the current methods of measurement

When measuring price trends in the world market in foreign currency and making forecasts of international price trends, the Riksbank has until now used a trade-weighted⁵ index of producer prices for manufactured goods in 11 countries, known as international producer prices. One problem with this index is that the producer and export price indices used for the different countries usually show price trends for the country's total export of manufactured goods and not developments in the price of the particular goods that Sweden imports. In addition, the weights that provide the base for this index were set in the early 1990s and no longer reflect current import weights. This measure therefore fails to capture the effect of the shift in imports to cheaper import producer countries, as the weights remain constant.

An estimate of the substitution effect

How much of an effect has this shift to cheaper countries had on the prices paid by Swedish importers? The assumption is that the Swedish import price in foreign currency can be measured as a weighted average of the export prices in the countries from which Sweden

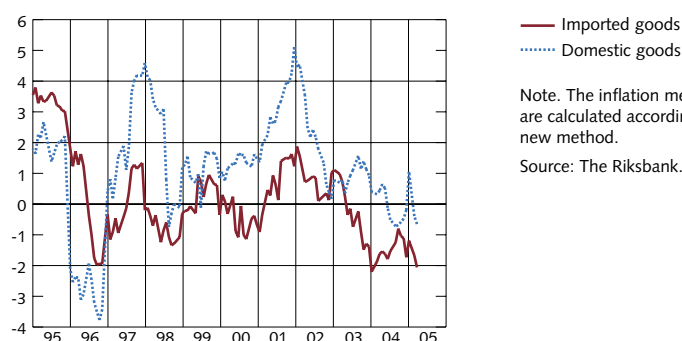
Figure B6. Inflation on goods and services adjusted for oil, energy and mortgage interest rates.
Annual percentage change



— Services
..... Goods

Note. The inflation measures are calculated according to a new method.
Source: The Riksbank.

Figure B7. Goods prices in the consumer segment.
Annual percentage change



— Imported goods
..... Domestic goods

Note. The inflation measures are calculated according to a new method.
Source: The Riksbank.

imports. The import price then consists of two parts; a weight and a price:

$$P_t = \sum_i w_{it} P_{it} . \quad (1)$$

P_t is the average price level (expressed in logarithms), P_{it} is the respective country's export price and w_{it} is each country's share of the total imports into Sweden. The interesting factor is the change in the average import price. This change can be divided up into a price effect, i.e. the contribution to the change in the import price given a change in the export price, and a weighted effect, which shows how the change in the import price depends on the changed import weights:

$$\Delta P_t = \sum_i w_{it} \Delta P_{it} + \sum_i \Delta w_{it} P_{it-1} . \quad (2)$$

The first term on the right side in equation 2 calculates the contribution to the total price

⁵ See the note to Table 4 in Chapter 2.

change of the change in prices in the respective country, while the other term calculates the contribution to the price change due to changes in the trade pattern, i.e. the substitution effect.

Calculations according to equation 2, which is based on import statistics from Statistics Sweden for Sweden's 25 largest export countries for consumer goods and producer and export price series from the respective countries, indicate that the shift of imports towards cheaper countries may have helped bring down prices Swedish importers pay by a couple of percentage points in 2004.⁶ This is illustrated in Figure B8, which shows an alternative import price in the national currency where the substitution effect has been taken into account.

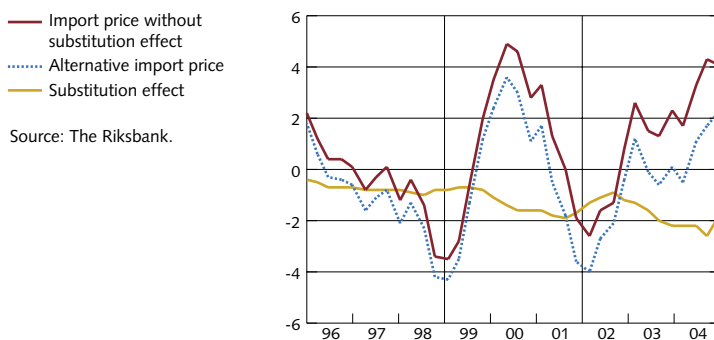
When corresponding calculations are made for import price trends in Swedish kronor, the substitution effect is roughly the same (see Figure B9). However, the total import price expressed in Swedish kronor fell more during 2003 and 2004 than is expressed in foreign currency, which confirms that the stronger exchange rate had a considerable effect then.

Sources of uncertainty

However, making this type of estimate is hazardous and the results are uncertain. This is partly because of the problems of finding reliable and usable statistics on other countries' export prices. In most cases there are no data on how the various trading partners' export prices for individual recipient countries develop; only data on their average export prices. This means that the export prices from one country represent an average of the prices of all goods that country exports. However, this does not mean that Sweden imports all goods that the country exports, and the price may therefore be misleading. A further factor that makes the export price misleading is that exporters often adapt their prices to the recipient country's competitive situation, i.e. conduct pricing-to-market.

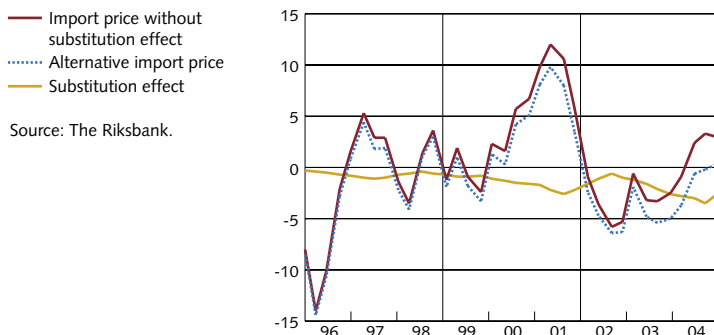
Moreover, there are considerable problems with import statistics that make it difficult to correctly estimate different countries' import weights. There are no data on Sweden's total imports from countries outside of the EU, as all imports from these countries that reach Sweden via another EU country are registered in the statistics as imports from the EU. If, for instance, Sweden imports cars from Japan but they are freighted via Rotterdam in the Netherlands, they become registered as imports from the Netherlands. This means that the EU is over-represented in the import statistics.

Figure B8. Effects of shift to cheaper countries, in foreign currency.
Annual percentage change



Source: The Riksbank.

Figure B9. Effects of shift to cheaper countries, in Swedish kronor.
Annual percentage change



Source: The Riksbank.

⁶ Similar calculations made by the Bank of England and Norges Bank have given results of a similar size.

All in all, this means that this estimate probably does not measure the right price and has probably underestimated the low-cost countries' share of our total imports. The substitution effect is therefore probably underestimated.

Conclusion

This box reports that the low import prices are partly due to the fact that there is a continuing shift in imports towards cheaper producer countries. Preliminary estimates indicate that this substitution may have contributed to bringing down import prices for Swedish importers by a couple of percentage points in 2004.

The result of the calculations used as a basis for the analysis in this box should be interpreted with caution, but they give reason to believe that international price pressure is overestimated in the weighing together of producer prices that has been used until now.

■ Inflation assessment

Inflation is currently very low. It is expected to remain low during the forecast period, notwithstanding a slight rise in 2006 and 2007. Low prices for food and imports will hold down inflation primarily in 2005. Inflation will increase in 2006 and 2007 in line with a gradual pick-up in resource utilisation, as well as mounting domestic and international cost pressures. Compared with the March Inflation Report, UND1X inflation is now expected to be lower for the greater part of the forecast period since it appears that resource utilisation and cost pressures will be lower. In the near term, however, inflation is anticipated to be slightly higher owing to the higher oil price. Due to the uncertainty surrounding the strength of the cyclical upswing, there is a somewhat greater risk of inflation turning out lower than in the main scenario than of it turning out higher.

Inflation prospects in the main scenario

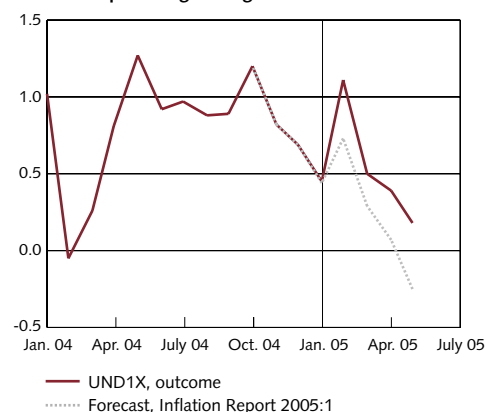
This chapter describes inflation developments since the previous Inflation Report and presents an assessment of the inflation outlook up to and including 2007 Q2. The forecast shows what the Riksbank deems to be the most likely path for inflation in the coming two years provided that the repo rate is held unchanged at 2.0 per cent. In addition, a box in this Report presents forecasts up to the end of 2008 Q2 under the assumption that the repo rate evolves in line with implied forward rates (see the box "Longer-term forecasts under the assumption that the repo rate evolves in line with implied forward rates").

■ ■ Inflation low but slightly higher than expected.

Since the last Inflation Report, CPI outcomes and measures of underlying inflation for the months February until May have been published by Statistics Sweden. The annual rates of increase in the CPI and UND1X in May were 0.1 per cent and 0.2 per cent, respectively, which was around 0.4 percentage points higher than forecast in the March Inflation Report (see Figure 35). The forecasting error is partly attributable to the fact that import prices did not fall as much as anticipated owing to unexpectedly high oil prices. The annual rate of increase in the prices of domestic goods and services, UNDINH, stood at 1.0 per cent in May, 0.3 percentage points higher than forecast. The forecasting error for domestic inflation chiefly reflects the fact that food prices dropped by less than expected.

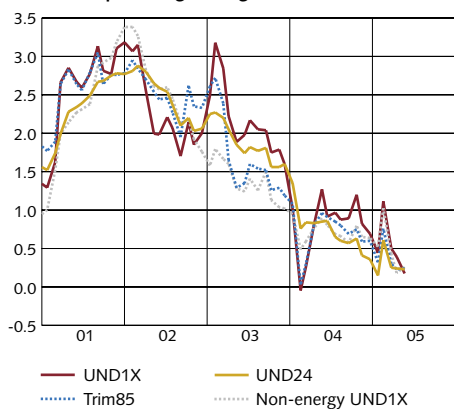
In order to analyse developments in inflation excluding various temporary effects, the Riksbank studies measures of underlying inflation. The aim is to attempt to discern the trend, or cyclical, component of inflation. Underlying inflation is not an unambiguously defined concept, though, and can accordingly be measured in different ways. Common methods are to exclude certain components from CPI inflation that are deemed to be temporary in nature.

Figure 35. UND1X: outcome and forecast in March Inflation Report.
Annual percentage change



Sources: Statistics Sweden and the Riksbank.

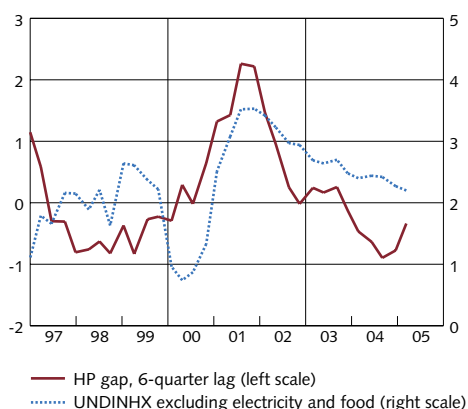
Figure 36. Different measures of underlying inflation. Annual percentage change



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

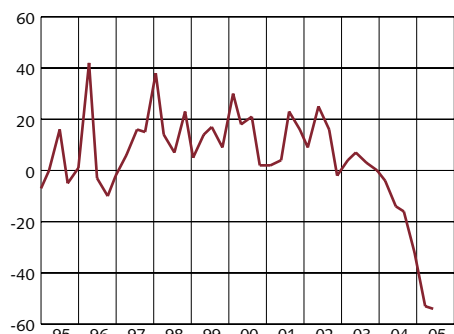
Sources: Statistics Sweden and the Riksbank.

Figure 37. UNDINHX excluding electricity and food and estimate of the output gap. Annual percentage change and per cent of GDP



Sources: Statistics Sweden and the Riksbank.

Figure 38. Price expectations in the non-durables sector. Balance



Source: NIER.

It is also possible to use statistical methods to exclude or lessen the significance of groups of goods and services whose prices display sharp fluctuations. Figure 36 presents different measures of underlying inflation. All measures show that the underlying inflation rate is currently low and has exhibited a falling trend over a long period. The measures also show that underlying inflation has dropped further since the publication of the March Inflation Report.

■ ■ Rising domestic inflation towards the end of the forecast period.

Domestic inflation has fallen over the past year. One important explanation is probably the fast rate of productivity growth, which in turn has resulted in low increases in companies' costs. Another likely cause of the low domestic price inflation is that resource utilisation has been relatively low recently (see Figure 37).

Changes of a structural nature also appear to have contributed somewhat to the low domestic inflation. This applies particularly to food prices, which have dropped in the past year. Tougher competition in the retail food sector has contributed to this development. In the previous Inflation Report, falling food prices were forecast to contribute to a continued low inflation rate in 2005. That assessment was based on plans announced by the major food chains to sharply reduce food prices in 2005. These statements were also reflected in the sector's expectations of future price changes, as shown in the National Institute of Economic Research's (NIER) business tendency survey (see Figure 38). It is difficult, however, to know exactly how much of this will show up in the CPI measurements and how large the effect on the recorded inflation rate will be. The Riksbank's assessment was that food prices in the CPI would drop by about 3 per cent in 2005. Now that we have received the new outcomes, it can be said that food prices have indeed fallen but not as much as expected. Our new assessment, therefore, is that food prices in the CPI will drop by around 2 per cent in the current year.

In 2006 and 2007, the domestic inflation rate is anticipated to pick up (see Figure 39). The number of employed will rise by degrees when economic conditions gradually improve again. That means that the rate of wage increases will turn out somewhat higher and that productivity growth will be slower. With that, domestic cost pressures will mount. This suggests that domestic inflation will be higher in 2006 and 2007 than in 2005, even though the rate of increase is now expected to be somewhat lower than estimated in the previous Inflation Report. Looking ahead two years, domestic inflation is forecast to be 2.2 per cent. That is a relatively modest inflation rate and can be compared with the average rate of domestic price increases over the past five years, 2.5 per cent. In comparison with the March Inflation Report, UNDINHX inflation is now estimated to be lower during the larger part of the forecast period. That is because resource utilisation is forecast to be lower, as is the rate of increase in unit labour costs (see Chapter 2).

■ ■ Low imported inflation throughout the forecast period.

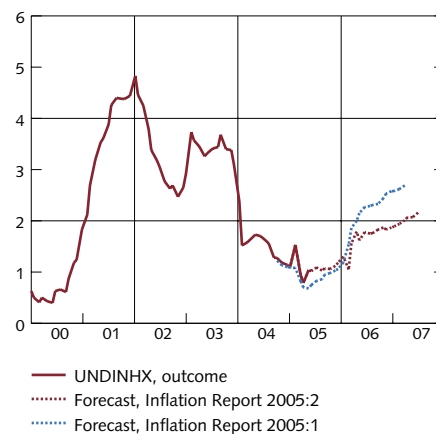
Excluding oil products, prices of imported goods have dropped since the beginning of 2003 (see Figure 40). In May 2005, the rate of change in non-oil UNDIMPX stood at -2.6 per cent, which was slightly lower than anticipated in the previous Inflation Report. The drop in imported inflation has been broad-based, with several factors contributing to the price falls in recent years. Significant factors are presumably the long-term appreciation of the krona in the past few years as well as low inflation for manufactured goods in the international market. Moreover, new studies suggest that changed trade patterns recently may have resulted in an overestimation of international price pressures (see the box "Why are Swedish import prices so low?"). Substitution to imports from low-wage countries has most likely not been taken into account enough in previous assessments of international price pressures. Adding to this is the EU's abolition of import quotas on clothing and textiles in January 2005, which has probably contributed to the unusually low rate of clothes price inflation to date this year. The very high growth rates for imports from China during the first quarter this year will not continue, however, given that the EU and China agreed at the start of June to limit Chinese exports.

The effects of the price-dampening factors are anticipated to partly diminish during the forecast period. A pick-up in global resource utilisation is estimated to lead to mounting international price pressures on manufactured goods, while the pass-through from the krona's appreciation in recent years should lessen. Furthermore, increasing resource utilisation and higher domestic cost pressures are expected to affect the prices of imported goods, too, since these are also processed and distributed before being sold on in the Swedish market. All in all, therefore, non-oil imported inflation is anticipated to rise gradually during the forecast period, standing at around 0.5 per cent in two years. Compared with the previous Inflation Report, the rate of increase in non-oil UNDIMPX is slightly lower throughout the forecast period due to the lower estimated international price pressures (see Figure 40). This is only partly offset by the expectations of a somewhat weaker krona.

■ ■ Oil price forecast revised up.

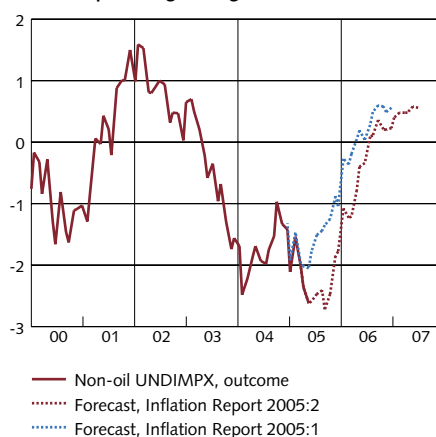
The high oil price in 2004 has had relatively large direct effects on the CPI through a marked rise in the rate of price increases for petrol and heating oil. It may also have contributed indirectly to inflation via higher prices for intermediate goods. However, there is still no evidence in producer and consumer price inflation data for consumption goods that this is the case. But the full effect has most likely not been seen yet. Meanwhile, inflation expectations and the rate of wage increases have fallen in the past year. Consequently, there are still no indications that the recent year's high oil prices have

Figure 39. UNDINHx: outcome and forecasts in the main scenario.
Annual percentage change



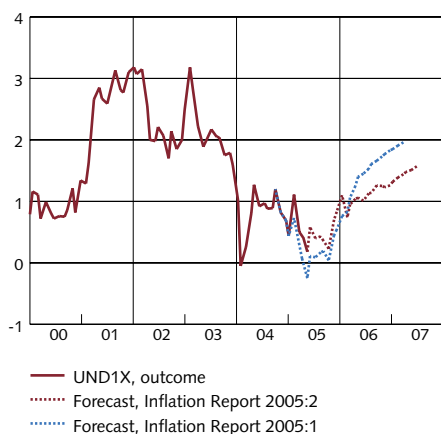
Sources: Statistics Sweden and the Riksbank.

Figure 40. Non-oil UNDIMPX: outcome and forecasts in the main scenario.
Annual percentage change



Sources: Statistics Sweden and the Riksbank.

Figure 41. UND1X: outcome and forecasts in the main scenario.
Annual percentage change



Sources: Statistics Sweden and the Riksbank.

led to rising inflation expectations and higher wages, something that in turn would have affected inflation.

In the year ahead, the oil price is expected to contribute to an increase in the inflation rate. But during 2006 and 2007, the oil price is estimated to fall slightly and thereby help to dampen inflation. Compared with the March Inflation Report the forecast for the oil price has been revised up for the entire forecast period (see Chapter 2). The indirect effects of the oil price are anticipated to be small. The oil price therefore will only contribute marginally more to inflation towards the end of the forecast period compared with the assessment in the previous Inflation Report.

■ ■ Inflation forecast revised down towards the end of the forecast period.

To sum up, inflation is expected to remain low in 2005 owing to modest resource utilisation and cost pressures as well as a number of structural factors (see Figure 41). Inflation is projected to rise in 2006 and 2007, however, as resource utilisation and domestic and international cost pressures pick up, at the same time as the price squeeze from structural factors decreases to some extent. Nonetheless, inflation will be below 2 per cent throughout the forecast period. In the main scenario, UND1X inflation is expected to be 1.0 per cent one year ahead and 1.6 per cent in two years. The corresponding forecasts for CPI inflation are 1.2 per cent and 1.8 per cent, respectively (see Table 12).

The forecast for UND1X inflation has been revised down from the start of 2006, in relation to the March Inflation Report. That mainly reflects the projection of more subdued resource utilisation and cost pressures. In the near term, though, the forecast for UND1X inflation has been revised up due to higher prices for food and oil as well as a somewhat weaker exchange rate.

Table 12. Inflation forecasts in the main scenario.
Annual percentage change

	Annual average			12-month rate		
	2004	2005	2006	June 2005	June 2006	June 2007
CPI	0.4 (0.4)	0.3 (0.1)	1.2 (1.5)	0.5 (0.0)	1.2 (1.6)	1.8
UND1X	0.8 (0.8)	0.5 (0.2)	1.1 (1.4)	0.6 (0.1)	1.0 (1.4)	1.6
UNDINHX	1.6 (1.5)	1.1 (0.9)	1.7 (2.1)	1.0 (0.8)	1.8 (2.3)	2.2
UNDIMPX	-0.8 (-0.6)	-0.8 (-1.3)	-0.2 (-0.1)	-0.4 (-1.4)	-0.7 (-0.3)	0.3

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

Sources: Statistics Sweden and the Riksbank.

■ ■ CPI inflation higher than und1x inflation towards end of forecast period.

Since 2003, CPI inflation has been lower than UND1X inflation. That is chiefly because low interest rates have meant low interest costs for homeowners, which affects CPI inflation but not UND1X inflation. This difference is forecast to continue in the short run. Towards the end of the forecast period, however, higher energy taxes are expected to contribute to a slightly faster pace of CPI inflation than UND1X (see Table 13).

Table 13. Change in the CPI compared with UND1X. Annual percentage change and percentage points

	June 2005	June 2006	June 2007
UND1X	0.6	1.0	1.6
+ Effects of changes in mortgage interest expenditure	-0.2	-0.1	0.1
+ Effects of changes in indirect taxes and subsidies	0.2	0.3	0.1
=CPI	0.5	1.2	1.8

Note. The figures in parentheses are the forecasts in the previous Inflation Report. The contributions may not sum up due to rounding.

Sources: Statistics Sweden and the Riksbank.

Revised forecasts since the March Inflation Report

- CPI and UND1X inflation are forecast to turn out lower in 2006 and 2007 but somewhat higher in 2005 compared with the assessment in the previous Inflation Report.
- Domestic inflation is projected to be lower in 2006 and 2007 owing to lower cost pressures and resource utilisation.
- Imported inflation is expected to be slightly higher in the near term due to a higher oil price and a somewhat weaker exchange rate. The forecast for imported inflation towards the end of the forecast period has been revised down slightly, however, on account of a new assessment of international price pressures.

The balance of risks

The main scenario describes what the Riksbank assesses to be the most likely path for Swedish inflation provided that the repo rate remains unchanged at the current level. The monetary policy analysis also includes forecasts for inflation and GDP growth under the assumption that the repo rate evolves in line with implied forward rates (an average of forward rates up until 1 June). The forecasts are uncertain, however. When formulating monetary policy, therefore, the Bank also takes account of the risk that inflation may deviate from the main scenario.

Notwithstanding the downward revisions of the forecasts for both GDP growth and inflation in the main scenario, the risk that inflation will turn out lower than expected is deemed to be slightly larger than the risk of it turning out higher. The key risk factors for the inflation assessment are largely the same as those in the March Inflation Report. At that time, though, the downside and upside risks to inflation were balanced. The main contributor to the modified risk assessment is the recent changes in the economic situation, both internationally and in Sweden.

■ ■ The risks stemming from the international and domestic economic situation have increased.

In the recent quarter, economic activity has again turned out weaker than expected in the euro area, which comprises around 40 per cent of Sweden's export markets. GDP growth did pick up markedly in the first quarter this year, but this was almost entirely the effect of one single growth factor, namely, the considerable strength of German net exports. Domestic demand in the euro area is essentially showing no growth at all. Given the appreciation of the euro in 2002-2004, there is a risk that the export sector will weaken more than anticipated in the main scenario. If so, that would dampen labour market growth and lead to increased household uncertainty over the future, with adverse consequences for consumption demand. There are also signs that the weak demand in the euro area has subdued activity in the Swedish manufacturing sector. Were euro area growth not to pick up, Swedish export market growth would turn out lower than in the main scenario, thus resulting in lower resource utilisation and inflationary pressures.

Although output and capacity utilisation in the Swedish manufacturing sector are currently at relatively high levels, there is evidence of a softening. In March, growth in new orders in manufacturing stagnated and manufacturing firms revised down their expectations, according to the National Institute of Economic Research's (NIER) monthly business tendency survey. Were manufacturing activity to slacken more than expected it would have a negative impact on the labour market, especially since domestic demand has not yet proved capable of taking over the role of growth engine from net exports.

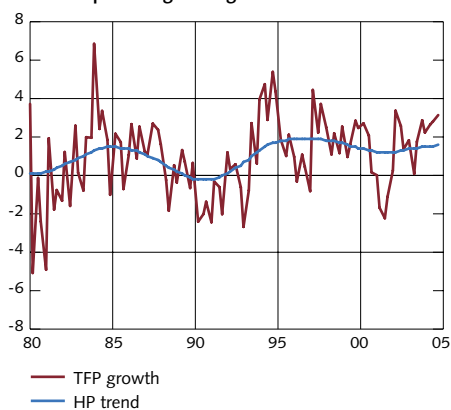
Swedish labour market growth continues to be weak despite firm activity in the export sector in recent years and in spite of the fact that domestic demand has shown relatively strong growth up to the end of 2004. Recent data show that employment was more or less unchanged in Q1 compared with Q4 last year, and the number of hours worked has even fallen. The lacklustre conditions in the Swedish labour market are primarily not a cyclical phenomenon. Following EU enlargement, the supply of labour has increased both for production in the new member states and also for jobs in Sweden. This higher supply may dampen Swedish employment and wage increases even more than has been the case to date. In the absence of an improvement in the labour market, there is a risk that growth in private consumption demand will slacken further. If so, that could lead to even weaker GDP growth than in the main scenario, even though the forecasts have been revised down sharply since the March Inflation Report. Taken together, the economic developments in the euro area and Sweden imply a risk of lower inflation than in the main scenario.

■ ■ **Oil price still a source of uncertainty.**

The price of oil is as usual a significant risk to both growth and inflation, both internationally and in Sweden, even though developments in the oil price partly reflect uncertainty over the economic situation. The oil price has dropped slightly in the recent month but is still at a high level in a historical perspective and higher than forecast in the previous Inflation Report. The forecast for the oil price has been revised up, but there is a great deal of uncertainty in the forecast. There is relatively low spare capacity in global production, and were the demand for oil to increase more than expected in the strongest-growing parts of the world economy the oil price could surprise on the upside, possibly acting as a drag on the world economy. The effect would most likely be relatively small, however, if the price increase were perceived to be temporary. It should also be underlined that the industrial nations have become considerably less dependent on oil compared with the early 1980s. There is nonetheless a risk that a higher oil price would push up the general cost level and inflation expectations and have a more lasting impact on global and Swedish inflation than assumed in the main scenario.

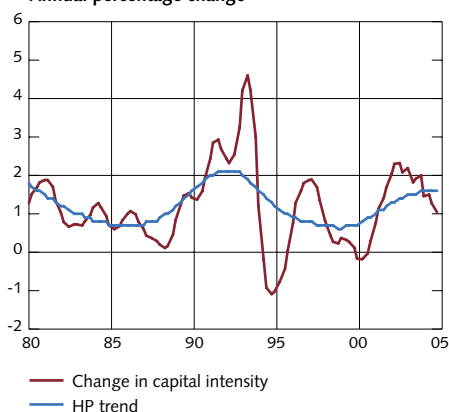
Other factors that could subdue global and Swedish economic activity more than expected are related to the current global imbalances, notably the large US current account deficit. There is some uncertainty in the global financial markets regarding how sustainable the deficit is in the long run, and this has had a negative impact on the dollar at times. Were investors to take the view that they would get a higher, safer return on investments in other economies than the United States, there is a risk that the dollar would fall sharply and that interest rates would rise in the United States. That in itself could help reduce the imbalances but a fast, substantial weakening of the dollar could at the same time heighten

Figure 42. Total factor productivity in the business sector.
Annual percentage change



Sources: OECD and the Riksbank.

Figure 43. Capital intensity in the business sector.
Annual percentage change



Sources: OECD and the Riksbank.

investor uncertainty further and also dampen growth in international investment, at least temporarily.

It is also possible that the brisk growth in Asia will slacken more than anticipated. For instance, there may be cause for some concern over the performance of the Chinese economy.

■■ International price developments reflecting stiffer competition.

Low import prices and continued strength in global competition have contributed in recent years to low inflation in Sweden. This may partly reflect an adjustment to a lower price level, in which case the lasting effects on the inflation rate could prove to be fairly small. The adjustment is occurring gradually, however, and so the moderating impact on inflation could persist for a longer period. In the main scenario in this Inflation Report, global competitive pressures are judged to dampen Swedish inflation for a longer period than previously forecast. That is mainly because greater weight has been given in the current forecast to the substitution effect that arises when there is a shift in imports to countries with lower prices. It is highly uncertain, though, how long the impact on inflation of global inflationary pressures will last, and the risk of overestimating the inflation-dampening effects of global price developments could very well be as large as the risk of underestimating them.

■■ Productivity growth still a key risk factor.

A significant risk to domestic inflation, partly independent of the international and domestic economic situation, is productivity growth. Growth in Swedish productivity has been high over the past ten years. Presently, there are arguments both that the trend rate of productivity growth will continue to be strong and that it will moderate. Those factors that appear to explain the higher productivity growth – macroeconomic stabilisation, the technology shift in terms of IT, the fact that productivity growth has become more evenly distributed across sectors and is also rising in the services sector, and the trend growth in total factor productivity (see Figure 42) – suggest that there was a permanent shift to a higher growth rate during the 1990s. However, it is reasonable to believe that productivity growth will slacken in the event of a recovery in the labour market. In the United States – where economic activity has been stronger than in Sweden in recent years – productivity growth has softened after the labour market has picked up. It is part of a normal business cycle that capital intensity and thereby productivity should decrease as economic activity strengthens, and this seems to have happened in Sweden in 2004 (see Figure 43). The overall assessment is that the risk of stronger productivity growth and lower inflation than in the main scenario is roughly equal to the risk of weaker productivity growth and higher inflation. It should be underscored that there is still considerable uncertainty regarding future productivity gains, even though the recent change in the economic outlook has not resulted in a significantly different forecast for productivity growth.

■ Risk of a weaker krona.

Recently, the krona has not strengthened in line with expectations. That reflects the signs of weaker growth in Sweden and the effects of this on monetary policy expectations. In the main scenario the krona appreciates, partly because Swedish growth is expected to pick up again and also due to the current account surplus. However, the risks to the international and domestic economic situation also entail a risk of a weaker krona. A lower-valued krona than anticipated could have a positive impact on Swedish GDP growth and could also result in higher inflation. Were the krona not to appreciate as assumed in the main scenario, but to remain at its current level, this could mean an inflation rate a couple of tenths of a percentage point higher than in the main scenario one and two years ahead. The effects on GDP growth and inflation would differ, however, depending on what the key reasons for the krona depreciation proved to be. Were the depreciation a result of weakening demand in Sweden or abroad, the overall impact on Swedish growth and inflation would most likely not be problematic. The situation could turn out differently if a weak Swedish krona were to go hand in hand with a continued cyclical upswing.

To sum up, the Riksbank's assessment is that the probability of inflation turning out lower than in the main scenario is larger than the probability of it turning out higher. Taking into account the risk outlook, CPI inflation is expected to be 1.1 per cent one year ahead and 1.6 per cent in two years. The corresponding forecasts for UND1X inflation are 0.9 per cent and 1.5 per cent, respectively.

Table 14. Risk-adjusted inflation forecasts.
Annual percentage change

	Annual average		12-month rate	
	2005	2006	June 2006	June 2007
CPI	0.3 (0.1)	1.1 (1.5)	1.1 (1.6)	1.6
UND1X	0.5 (0.2)	1.0 (1.4)	0.9 (1.4)	1.5

Note. The figures in parentheses are the corresponding forecasts in the previous Inflation Report. The table gives the mean values of the probability distributions for the inflation forecasts in Figures 44 and 45.

Source: The Riksbank.

Table 15. UND1X inflation (12-month rate).
Percentage probability of different outcomes

	x<1	1<x<2	2<x<3	x>3	Total
June 2006	53 (44)	41 (45)	6 (11)	0 (0)	100
June 2007	33 (22)	32 (30)	24 (29)	11 (19)	100

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

Source: The Riksbank.

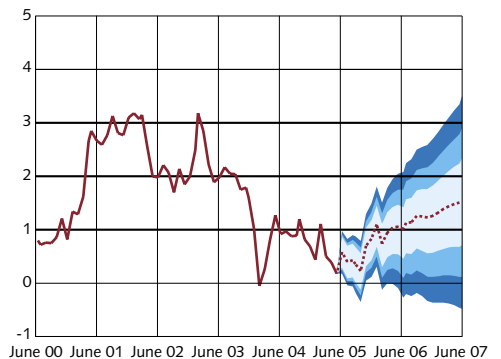
Table 16. CPI inflation (12-month rate).
Percentage probability of different outcomes

	x<1	1<x<2	2<x<3	x>3	Total
June 2006	45 (38)	46 (48)	9 (13)	0 (1)	100
June 2007	28 (18)	31 (29)	27 (30)	14 (23)	100

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

Source: The Riksbank.

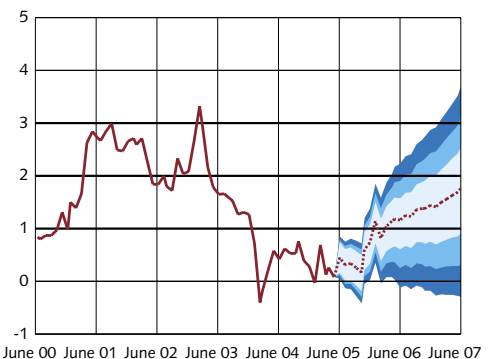
Figure 44. UND1X inflation with uncertainty bands.
Annual percentage change



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

Sources: Statistics Sweden and the Riksbank.

Figure 45. CPI inflation with uncertainty bands.
Annual percentage change



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

Sources: Statistics Sweden and the Riksbank.

Longer-term forecasts under the assumption that the repo rate evolves in line with implied forward rates

This box presents forecasts for Swedish inflation that extend one year beyond the horizon in the Inflation Report's main scenario. Moreover, the interest rate assumption on which the forecasts are based is different to that in the main scenario. Here, the forecasts for inflation and real economic developments are conditioned on the assumption that the repo rate tracks a 15-day average of the implied forward rates as at 1 June 2005. This alternative scenario entails monetary easing in the near term followed by a slowly rising repo rate from mid-2006. Inflation rises gradually, but slowly, towards the target in the coming three years. After a slowdown in 2005, economic growth speeds up again in 2006, as in the main scenario. Resource utilisation increases gradually during the forecast period.

From Inflation Report 2005:1, the Riksbank publishes supplementary inflation forecasts that extend three years ahead, i.e. one year beyond the horizon in the main scenario. A further difference is that these forecasts are based on a different monetary policy assumption than that in the main scenario. While the forecasts in the main scenario are based on the assumption that the repo rate is held constant for two years, the analysis in this box assumes that the repo rate over the next three years evolves in line with implied forward rates.

The aim of the analysis with an extended forecast horizon and the alternative rate assumption is to provide a more comprehensive background for the monetary policy discussion.⁷ Lengthening the forecast horizon gives a clearer picture both of how inflation developments are being influenced by various transitory effects

and of how the Riksbank views the relationship between the real economy and monetary policy. In some situations the usual two-year horizon may be too short to fully describe the developments that the Riksbank expects, and that are of significance for the formulation of monetary policy. That is the case, for example, in the event of large shocks to inflation. On previous occasions when such shocks have occurred, the Riksbank has calculated different measures of underlying inflation with a view to illustrating the longer-term effects of the shock to inflation. Extending the forecast horizon can supplement such an analysis. Furthermore, a repo rate development in line with implied forward rates normally provides a more realistic picture of future monetary policy than the assumption of an unchanged repo rate. This makes it easier to compare the Riksbank's forecasts with those of other forecasters, and it facilitates future assessments of the Riksbank's forecasts by Parliament.⁸

Implied forward rates point to monetary easing in the near term, followed by a gradual tightening in coming years

The alternative interest rate assumption means that the repo rate follows a 15-day average of the implied forward rates as at 1 June 2005.⁹ An average has been calculated so as to exclude short-term movements in the forward curve. Figure B10 shows the interest rate path on which the forecasts are based. The path implies an easing of monetary policy in the short term, followed by a gradual tightening. More specifically, the repo rate is lowered by around 25 basis points towards the end of this year and remains at that level until around

7 See Heikensten, L., "Thoughts on how to develop the Riksbank's monetary policy work", speech at the Swedish Economics Association, 22 February 2005, or the box "Changes in the Riksbank's forecasting methods" in Inflation Report 2005:1 for a more detailed explanation of the supplementary analysis.

8 It is worth pointing out that a repo rate path in line with implied forward rates should not be interpreted as the most probable assumption that can be made for monetary policy. First, the existence of different premiums means that implied forward rates are not a perfect measure of market expectations regarding the repo rate. Second, it is not certain that market expectations will always correspond to the Riksbank's expectations (which reflect the most probable monetary policy assumption). For example, it is conceivable that the market and the Riksbank would sometimes have different views regarding the best monetary policy response to a shock.

9 Each individual implied forward rate curve has been derived from interest rates on T-bills and government bonds. These interest rates represent averages of the bid and offer rates, and have been taken from the Riksbank's database (VERA). The method for estimating the implied forward rates is based on the extended Nelson-Siegel method, which is described in Svensson, L.E.O. "Estimating Forward Interest Rates with the Extended Nelson & Siegel Method", *Sveriges Riksbank Quarterly Review* 3, 1995.

mid-2006. Thereafter, the repo rate rises slowly, standing at approximately 3.5 per cent at the end of 2008. Compared with the assumption in the main scenario of a constant repo rate, this indicates more expansionary monetary policy in the short term, followed by a period of more contractionary policy. Despite the monetary tightening in the years ahead, for a long period the repo rate is at a level that is relatively low in a historical perspective.

This average curve for implied forward rates is some 50 basis points lower than the corresponding curve in the previous Inflation Report (see Figure B10). The lower interest rate assumption for the coming years means that the differences between the main scenario forecasts and those based on implied forward rates are smaller than in the previous Report. The forecasts assume that the repo rate evolves in line with implied forward rates throughout the forecast period (three years), in exactly the same way as when forecasts are produced under the assumption of a constant repo rate (in this case two years).¹⁰

The expected performance in the world economy is the same as in the main scenario

Sweden is a small economy, which means that international developments are affected to a very small extent by various assumptions regarding the path of Swedish interest rates. The expected world economic performance for the period 2005-2007 is therefore the same as in the main scenario, i.e. GDP growth edges higher. Resource utilisation picks up as a result. International price pressures are kept in check, however, by stiffer international competition and a tighter squeeze on international prices as well as by falling prices for oil and commodities.

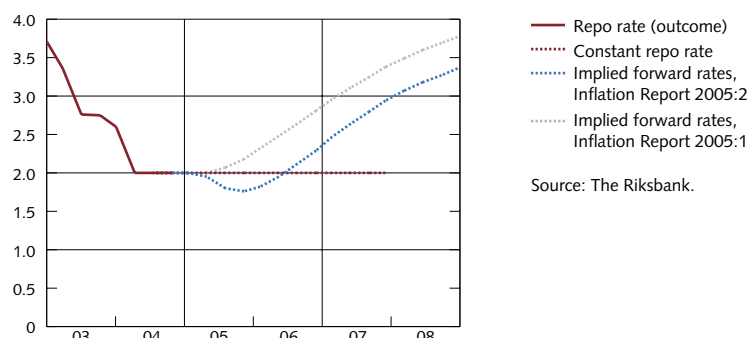
Small effects from short-term stimulus

In the main scenario, which assumes a constant repo rate, the krona is forecast to appreciate

slowly in 2006 and 2007. Under the alternative interest rate assumption, the krona weakens in the near term but thereafter is expected to appreciate as policy is tightened. In 2006 and 2007, the TCW-weighted exchange rate is assumed to appreciate at a faster rate than in the main scenario.

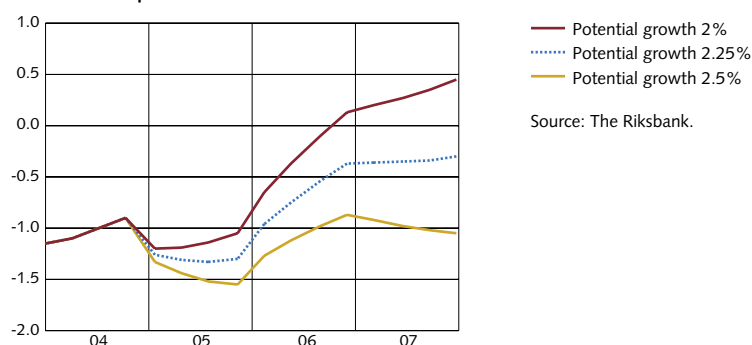
The effects of the lower repo rate on economic activity are deemed to be relatively small. The stimulatory impact of the lower short-term rate is offset by higher long-term rates. The contractionary effects prevail over time, and growth in exports, investment and consumption turn out slightly weaker than in the main scenario. Following a slowdown in

Figure B10. Repo rate assumptions: Implied forward rate curves, 15-day averages as at 1 June 2005 and 23 February 2005 (as in Inflation Report 2005:1) and constant repo rate.
Per cent



Source: The Riksbank.

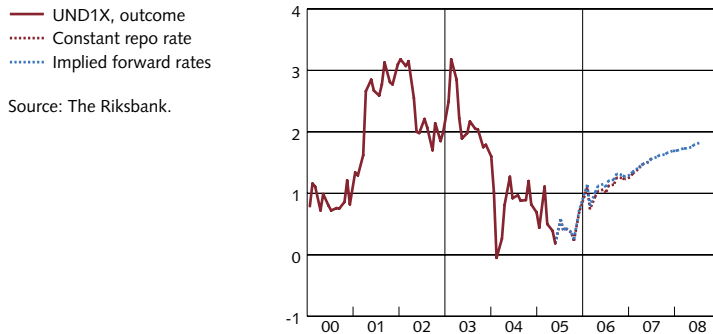
Figure B11. Measures of the output gap in 2004-2007 under the assumption of a repo rate path in line with implied forward rates.
Per cent of potential GDP



Source: The Riksbank.

¹⁰ Any premiums or temporary factors that affect the estimations of the repo rate path are assumed to gradually diminish after the forecast period. This assumption is made so that the repo rate in the long run is in line with the expected level.

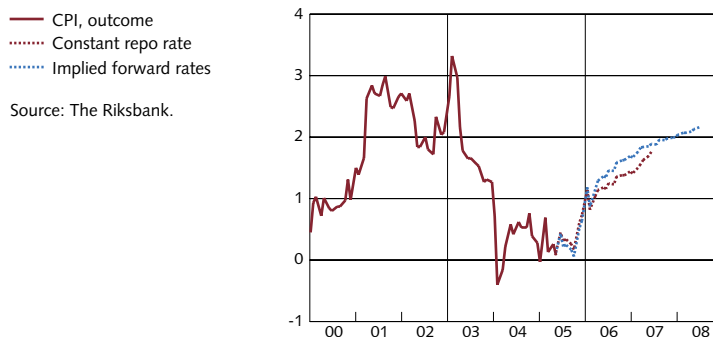
Figure B12. UND1X inflation: outcome and forecasts until June 2008 under the assumptions of a repo rate path in line with implied forward rates and with a constant repo rate.
Annual percentage change



economic growth during the current year, GDP growth increases again. Annual GDP growth in the period 2005-2007 is forecast to be 1.9 per cent, 2.6 per cent and 2.4 per cent, respectively, in this alternative scenario. The corresponding figures in the main scenario are 1.9 per cent, 2.7 per cent and 2.7 per cent, respectively (see also Table B5). It should be remembered that the former forecasts are the most meaningful to compare with other forecasters, since the Riksbank is the only forecaster that regularly works with an assumption of an unchanged repo rate in the coming two years.

Resource utilisation, which is judged to be moderate initially, rises only slowly during the

Figure B13. CPI inflation: outcome and forecasts until June 2008 under the assumptions of a repo rate path in line with implied forward rates and with a constant repo rate.
Annual percentage change



period. Precise estimates of the output gap are highly uncertain, however, since they require assumptions regarding both potential growth and the exact current level of resource utilisation. Figure B11 shows developments in the output gap until 2007 on the basis of three different assumptions regarding potential growth and given the assumption that the current gap is around -1 per cent of potential GDP. Given potential growth of about 2.25 per cent the output gap remains negative throughout the forecast period. If, instead, potential growth in the coming years is higher (lower) than 2.25 per cent, resource utilisation turns out lower (higher).

Inflation rises slowly towards the target

In the Inflation Report's main scenario, inflationary pressures are forecast to remain weak for some time yet. Under the alternative rate assumption in this box, inflation turns out somewhat higher in the near term owing to the lower repo rate (chiefly via a weaker exchange rate and higher imported inflation), but lower in the longer perspective. The longer-term effect is a result of the higher interest rate level, which entails both a stronger krona (and thereby lower imported inflation) and weaker growth (lower domestic inflation). In June 2006, UND1X inflation stands at 1.1 per cent, compared with 1.0 per cent in the main scenario (see Table B6). In 2007 and 2008, cost pressures continue to build up slowly and UND1X inflation continues to rise, with UND1X expected to be a couple of tenths of a percentage point below target by mid-2008 (see Figure B12).

The forecast for CPI inflation is affected by the increasing mortgage interest costs that result from the rising interest rate level. Consequently, the CPI forecast based on implied forward rates is higher than that based on a constant repo rate towards the end of the main scenario's two-year horizon as well. By mid-2008, the change in the CPI is estimated to be 2.2 per cent (see Figure B13). In the longer term, though, the higher interest rate level also leads to a dampening of CPI inflation.

**Table B5. GDP growth: forecasts based on implied forward rates.
Annual percentage change**

	2005	2006	2007
GDP at market prices	1.9 (1.9)	2.6 (2.7)	2.4 (2.7)

Note. The data refer to actual, non-calendar-adjusted, growth rates. The figures in parentheses are forecasts based on a constant repo rate.

Sources: Statistics Sweden and the Riksbank.

**Table B6. Inflation forecasts under the assumption of a repo rate path in line with implied forward rates.
Annual percentage change**

	Annual average				12-month rate			
	2004	2005	2006	2007	June 2005	June 2006	June 2007	June 2008
CPI	0.4 (0.4)	0.3 (0.3)	1.4 (1.2)	1.9	0.4 (0.5)	1.4 (1.2)	1.9 (1.8)	2.2
UND1X	0.8 (0.8)	0.5 (0.5)	1.2 (1.1)	1.6	0.6 (0.6)	1.1 (1.0)	1.6 (1.6)	1.8

Note. The figures in parentheses are forecasts based on a constant repo rate. UND1X is CPI inflation excluding household mortgage interest expenditure and the effects of changes in indirect taxes and subsidies.

Sources: Statistics Sweden and the Riksbank.

