Contents

Foreword 3

Summary 4

1 Developments since the December report 5

Inflation 5

Factors of importance for future inflation 9

Interest and exchange rates 17

2 Inflation assessment, March 1997 21

3 Monetary policy conclusions 24

Annex 27

Foreword

This is the twelfth inflation report in the series, which started in October 1993. The purpose of the reports is to provide a basis for monetary policy decisions. In addition, the reports make our deliberations known to a wider public, thereby making our policy easier to follow. They are also intended to encourage a discussion of matters relating to monetary policy.

The present report is arranged in the same way as its predecessors. The text concentrates on events since the previous report and the ensuing conclusions for the assessment of inflation and for monetary policy. The aim is to present a comprehensive picture of the relevant factors and deliberations. The underlying statistical material is contained in an annex of diagrams and tables.

The work on the report has been done mainly in the Economics Department of the Riksbank. It has been led by the head of the Department, Claes Berg, and the head of the Price Analysis Division, Jonas Ahlander.

The inflation report provided a basis for the Governing Board's discussion of monetary policy on 6 March 1997. The conclusions from that discussion are presented in Chapter 3.

Stockholm, March 1997

Urban Bäckström
Governor of Sveriges Riksbank

Summary

The path of registered inflation since the December report has been lower than expected. It seems that increased competition and a lower inflation propensity have continued to exert a favourable influence on price setting. Moreover, the impact on the CPI from falling house mortgage interest costs has been greater than envisaged.

Since the beginning of 1996, activity in the Swedish economy has been recovering. GDP growth in the second half of 1996 came mainly from rising private consumption, accompanied by a continued increase in exports. The expansion of production was countered by destocking, particularly in the second half of 1996, as well as by weak demand for public consumption and investment.

The Riksbank's assessment is that growth will pick up in the coming years. In the main scenario the outlook for total growth in 1997 and 1998 is considered to be much the same as in the December report, which in round figures implies GDP growth rates of 2 and 3 per cent, respectively. This is not expected to result in capacity restrictions that would be liable to lead to rising inflation.

The Riksbank considers it probable that inflation, measured with the CPI, will rise by degrees in the coming years. This will be mainly due to transitory factors, such as effects of interest and exchange rate movements dropping out of registered inflation, and to changes in indirect taxes and subsidies. The average change in the CPI is expected to be around 0.5 per cent in 1997 and somewhat less than 2 per cent in 1998. Underlying domestic inflation in the coming years is expected to be between 1.5 and 2 per cent. This assessment starts from unchanged instrumental rates and some appreciation of the TCW exchange rate from the level of 119.

Apart from the main scenario, two alternative paths for inflation seem most probable. On the one hand, a weak development of household income in the year ahead, persistently high levels of unemployment and uncertainty about future income could contribute to weaker growth and lower inflation. On the other, a weaker exchange rate tendency and higher private consumption compared with the main scenario might generate higher growth and stronger inflationary pressure.

The main scenario and its underlying assumptions do not preclude somewhat more stimulatory monetary conditions. This is because during 1998 inflation is expected to be somewhat below the target level of 2 per cent. However, as the composition of the monetary conditions—interest and exchange rates—is not controlled by the Riksbank, this does not necessarily mean that the instrumental rate can be lowered. The path of the exchange rate must also be taken into account. A comprehensive assessment warrants the conclusion that the monetary stance is well balanced.

Chapter 1

Developments since the December report

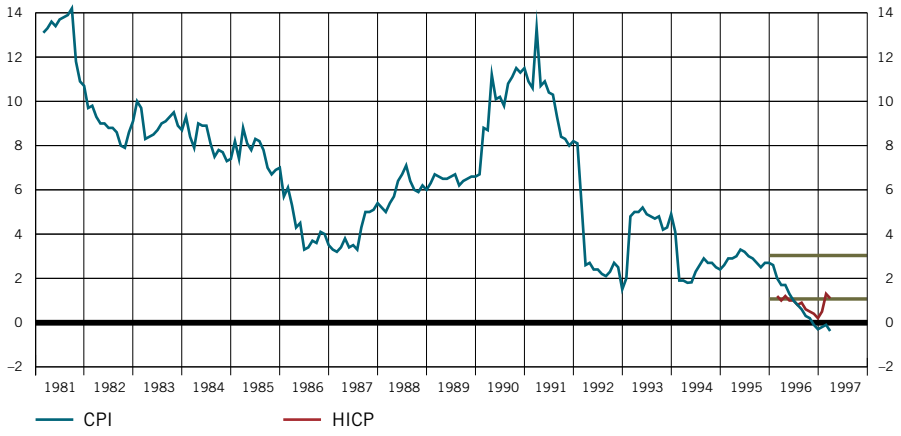
Economic developments since the previous inflation report are discussed in this chapter, focusing on factors that have a bearing on future inflation. The account begins with the development of inflation in recent months, followed by an analysis of various factors that are significant for future inflation, for instance the state of demand and supply as well as inflation expectations. Finally there is a discussion of the direction of monetary policy and recent movements in interest and exchange rates.

Inflation

In February 1997 the level of the CPI was 0.4 per cent lower than a year earlier (Fig. 1). In November 1996, the latest month for which statistics were available for last December's inflation report, the level of consumer prices was 0.3 per cent lower than a year earlier. For February 1997 the new EU-harmonised index of consumer prices (HICP) shows a 12-month change of 1.1 per cent. The main explanation for the difference between the two indexes is that, until further notice, the HICP does not include capital costs for owner-occupied houses (the HICP is presented in a box on page 8).

Since November 1996 the 12-month rate of change for prices generated domestically, as well as

Figure 1.
CPI and HICP*.
Percentage 12-month change



*Harmonised index for international comparisons of consumer price movements.
Note. The horizontal lines for 1995 onwards represent the Riksbank's tolerance interval for the annual increase in the CPI.
Source: Statistics Sweden.

for prices of goods that are mainly imported, has on average, risen. (Fig. 2). This was mainly a consequence of increased taxes on tobacco products and decreased subsidies for pharmaceuticals but it also had to do with a weaker exchange rate. This tendency was largely countered by a continued and accelerating fall in house mortgage interest costs.

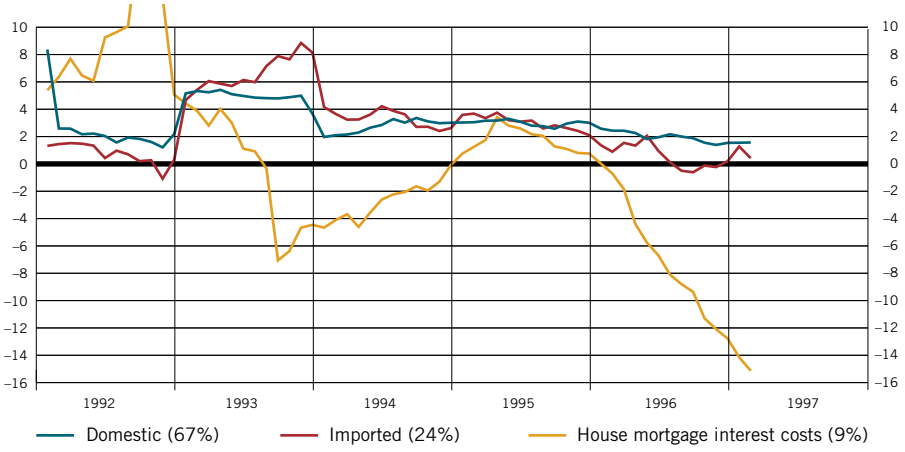
Underlying inflation, as measured by UND1 and UND2, was virtually unchanged, at around 1 per cent, towards the end of 1996 and early in 1997. Both these indicators represent the CPI excluding house mortgage interest costs and effects of changes in indirect taxes and subsidies; UND2 also disregards petroleum and petrol prices. These indicators are markedly susceptible to international price movements and exchange rate fluctuations. One way of distinguishing international price effects more clearly is to split UND1 into domestic and imported components.

This breakdown shows that the domestic component, referred to as underlying domestic inflation, has had a falling trend since the beginning of the 1990s. This is a consequence of low resource utilisation combined with growing confidence in the policy of price stability and thereby a diminishing inflation propensity. At the beginning of 1997 the rate of underlying domestic inflation was just over 1 per cent (Fig. 3).

Imported inflation (consumer prices of goods that are mainly imported, excluding effects of changes in taxes and subsidies) has been lower than underlying domestic inflation—due to the krona's appreciation—since the beginning of 1996. That accounts for UND1 and UND2 being below the latter's rate of increase. With the weaker exchange rate since the end of 1996, however, imported inflation has been rising.

An important consideration in the assessment of inflation is the extent to which registered inflation has to do with factors that have transitory as opposed to more lasting inflationary impulses. This can be analysed by excluding effects of changes in taxes and subsidies as well as movements in interest and exchange rates. At the same time, essential information about the inflation process should not be overlooked. The development of consumer prices for goods that are mainly imported is also a part of the domestic inflation process in that it reflects the pass-through of exchange rates and costs and thereby the picture of profit margins and price setting in trade. This is important in the context of inflation because international price impulses are liable to in-

Figure 2.
Components of the CPI.
Percentage 12-month change



Note. The figures in parentheses are the component's CPI weight in 1997.
Sources: Statistics Sweden and the Riksbank.

fluence domestic inflation expectations and thereby future price and wage formation.

Inflation in the course of 1996, measured with the CPI, averaged 0.7 per cent, which is under the lower tolerance limit of the inflation target. As noted in earlier reports, the main factor behind the low rate was decreased house mortgage costs as a result of falling interest rates. A stronger exchange rate also helped to keep consumer prices down. There are indications, moreover, that price formation in the Swedish economy has changed in ways that were not entirely predictable, for instance as a result of increased confidence in the policy for price stability and better competitive conditions.

The path of registered inflation towards the end of 1996 and early in 1997 has been lower than expected in the December report. There are several reasons for this.

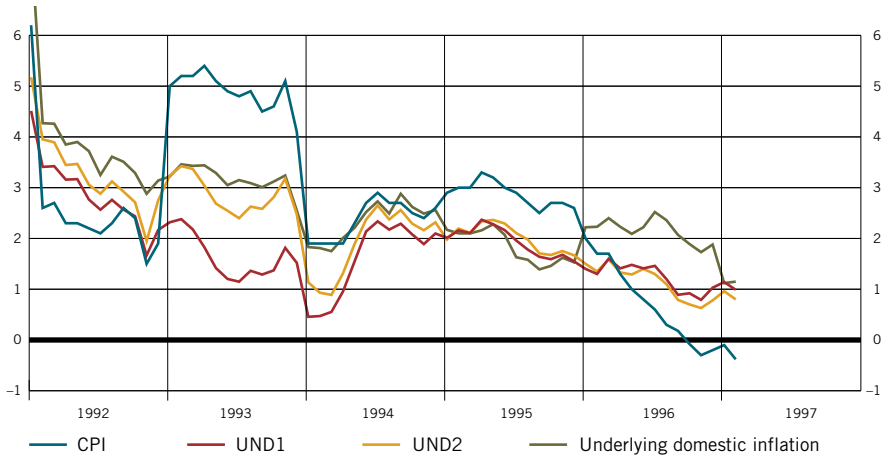
The path of registered inflation has been lower than expected in the December report.

Prices have been more subdued than expected for several categories of services, for example travel and transport. A number of transport markets have been de- or re-regulated in recent years and local authorities are using competitive tendering to a growing extent for the procurement of transport services, e.g. public transport. Another category is car repairs, where costs for materials and labour have fallen in connection with price adjustments to a competitive market for items such as the replacement of exhaust systems and brake linings. Moreover, prices for telecommunication services were lowered in a number of markets, e.g. international calls, around the turn of 1996 as a consequence of increased price competition between the largest suppliers.

Other factors behind the unexpectedly low path of the CPI include the reorganisation of real estate tax as of 1996; with the method used by Statistics Sweden to calculate the CPI, this led to an average fall in tax due on owner-occupied houses in January 1997. This suggests that, despite some increase in house prices, the average level of taxable property values was not raised.

Moreover, house mortgage interest costs continued to fall more rapidly than expected. Besides reflecting the downward movement of interest rates, this is an effect of the large extent to which households have opted to repay fixed-interest loans in advance in order to obtain new loans at lower interest rates. This may explain why interest costs

Figure 3.
CPI and underlying inflation.
Percentage 12-month change



Sources: Statistics Sweden and the Riksbank.

have fallen more markedly than one would expect from the maturity structure of house mortgage loans.

Increased competition and a lower inflation propensity have continued to have favourable effects on price formation.

The overall impression is thus that increased competition and a lower inflation propensity have continued to have favourable effects on price formation and that the path of underlying inflation is somewhat lower than we counted on in the December report. Moreover, registered inflation as measured with the CPI has been affected by transitory factors to a greater extent than expected.

NEW, HARMONISED MEASURE OF INFLATION

Harmonised Indices of Consumer Prices (HICP) were published by Eurostat, the statistical office of the European Communities, for the first time on 7 March 1997.[1] The HICP succeeds the interim index for comparisons of consumer price movements (IICP), which was published during 1996 and has been calculated from January 1995 to January 1997. The national statistical authorities are to publish the HICP on a monthly basis.

Measured with the HICP, the rate of inflation in Sweden in January 1997 was 1.3 per cent. Sweden, with Luxembourg, had the second lowest rate in the European Union; the lowest rate in January was registered for Finland (Table 1). In terms of the average rate in the past twelve months, however, the level of inflation in Sweden is the lowest in the EU. A major explanation for this is the cut in VAT on food at the turn of 1995.

The EU harmonisation of consumer price indexes started in the middle of 1993 and stems from the Maastricht Treaty, although ambitions in this direction have existed for several decades. Under the Treaty, the examination of which countries fulfil the convergence criterion on price stability for the third stage of EMU is to be made with an internationally commensurable measure of inflation.

Unlike the earlier IICP, the HICP is based on harmonised methods for collection and calculation. The IICP simply excluded products for which country differences were greatest: capital costs for owner-occupied dwellings, insurance services and fees for health and medical care. These items made up about 17 per cent of Sweden's CPI.

Table 1.
HICP inflation in EU countries.
Per cent

	January 1997	Average Jan. 1996 –Jan. 1997
Sweden	1.3	0.8
Luxembourg	1.3	1.2
Germany	1.7	1.2
Finland	0.9	1.5
Netherlands	1.8	1.5
Belgium	2.2	1.8
Austria	1.6	1.8
Denmark	2.6	1.9
France	1.8	2.1
Ireland	1.9	..
EU	**2.2**	**2.4**
United Kingdom	2.1	..
Portugal	2.8	2.9
Spain	2.8	3.6
Italy	2.6	4.0
Greece	6.6	7.9

Source: Eurostat.

1 The countries taking part in the work of harmonisation are the 15 member states of the EU, Norway and Iceland.

It will be some years, however, before HICP harmonisation is complete. To date, the national statistical institutes and Eurostat have reached agreement on rules for the classification of sub-indices, the treatment of new products, minimum requirements for quality adjustments and sampling procedures. The most important issues outstanding are product coverage and the revision of the weights. The long-term index which is an item in the Swedish system will not feature in HICPs.

For Sweden, the process of CPI harmonisation to date makes it necessary to make monthly price measurements for books, funeral services and electricity and to develop the measurement of prices for used cars, certain private educational services and banking services. Some of these changes have already been or will be incorporated in the national CPIs to the extent that they are consistent with their computing principles.

Items that were excluded from the IICP will be included, in principle, in HICPs once agreement has been reached on how to calculate them so that they qualify for a place in an internationally commensurable measure of inflation. Insurance services, formerly excluded, are an HICP item as of 1997. As yet, however, neither dwelling capital costs for owner-occupiers nor health costs are included. Tax on owner-occupied dwellings, an item in Sweden's CPI, will not feature in the HICP but the latter will include other costs for owner-occupied dwellings, e.g. electricity, heating and waste disposal.

At present the HICP is not a candidate as a target variable for monetary policy. As the work of harmonisation is still in progress, it is not clear just how the index will be calculated in the coming years. It will also be some time before a time series for the new index is available that is long enough to be suitable for monetary policy analyses. However, the HICP will be presented in future inflation reports as an important indicator of inflation as well as for international comparisons.

Factors of importance for future inflation

After a relatively mild slowdown that reached a low in the first quarter of 1996, activity in the Swedish economy has been recovering. The GDP growth rate for 1996 was 1.1 per cent. Growth in the second half-year came mainly from rising private consumption, accompanied by a continued increase in exports. The expansion of production was countered by destocking, particularly in the second half of 1996, as well as by weak demand for public consumption and investment.

INDUSTRIAL INVESTMENT BOOM FALTERED TOWARDS THE END OF 1996

Industrial production stopped rising in the autumn of 1996 but the fourth-quarter level was almost 6 per cent higher than a year earlier. In annual terms, total industrial production rose by rather more than 2 per cent in 1996 but growth was by no means uniform. The manufacture of telecommunication products, for example, rose almost 35 per cent, while pulp production fell 6 per cent. Since the autumn of 1996 the order inflow has been largely unchanged, as was reflected in the expectations of firms in the business tendency surveys from the National Institute of Economic Research. According to Statistics Sweden, however, in the fourth quarter of 1996 the order inflow was still rising strongly, in annual terms by around 9 per cent.

Industrial investment activity slackened towards the end of 1996. This tendency is supported by a negligible expansion of production capacity in the fourth quarter according to the National Institute's surveys. In 1996 as a whole, however, industrial in-

vestment was a major factor behind the economic recovery, rising almost 15 per cent.

The GDP ratio for total investment was still historically low in 1996 (Annex, Fig. 8). This is because residential investment has been the very low in recent years. Excluding the residential component, the investment ratio in 1996 was almost as high as in 1989 and 1990.

Industrial capacity utilisation tended to move up in the second half of 1996.

Industrial capacity utilisation remained relatively high in 1996 and even tended to move up in the second half. Actual capacity utilisation as registered by Statistics Sweden was 87.7 per cent in the third quarter or somewhat higher than in the second quarter (Annex, Fig. 4). In the fourth quarter, capacity utilisation as reported in the National Institute's surveys was 85 per cent, which was 1 percentage point higher than earlier in the year.[2]

In other parts of the business sector the supply of unutilised resources is generally good. In construction, for instance, capacity utilisation is very low. In segments of the services sector, however, activity has continued to recover. Wholesale and retail trade is an example where activity picked up appreciably in the fourth quarter of 1996. In computer consultancy and services there were signs of capacity shortages towards the end of 1996; in the December survey from the National Institute, a shortage of competent personnel was reported by 88 per cent of these firms.

Business profitability in 1996 appears to have been somewhat lower than the year before.

Business profitability in 1996 appears to have been somewhat lower than the year before. A compilation of the annual reports for 1996 that listed companies had presented by the end of February 1997 shows that profits before tax and minority interests had dropped about 2 per cent.[3] The companies with the best development of profits included enterprises in construction and real estate, banks and computer consultancy. Profits for manufacturing companies were down from 1995 by an average of about 20 per cent, while for forest industries the fall amounted to almost 60 per cent. It should be added, however, that the level of profitability in 1995 was exceptionally high.

IMPORT PRICES HAVE RISEN

During 1996 import prices fell until the autumn but since then they have risen. The upturn mainly reflected an increasingly weak exchange rate together with price increases for crude oil (Annex, Fig. 5). In January 1997 the average level of import prices was not quite 1 per cent higher than a year earlier; prices for energy-related products had risen about 25 per cent, while the average price level for other imported goods had fallen.

From November to March the krona has weakened more than 5 per cent.[4] This points to a continued increase in import prices during the spring of 1997. Crude oil prices, however, have moved in the opposite direction; to date in 1997 the price of crude has fallen more than 20 per cent to just over $19/barrel, which is the same level as in the summer of 1996.

Home market prices for industrial products have remained weak in the winter. The average level in January 1997 was almost 1 per cent lower than a year earlier. For energy-related products, however, home market prices have risen this winter; compared with the beginning of 1996 their January level was 20 per cent higher.

MONEY SUPPLY AND CREDIT POINT TO INCREASED DEMAND

The development of the money supply and credit are relevant for monetary policy primarily as indicators of demand rather than as being directly linked to future inflation.

During the autumn of 1996 the growth of the *non-bank sector's holdings of banknotes and coins (M0)*

2 This statistic is reported after rounding to the nearest whole number.

3 Figures compiled by Six AB on behalf of the Riksbank.

4 Based on exchange rates reported by the Board of Customs, weighted with each currency's share in Swedish imports.

moved up and reached more than 5 per cent at the end of the year and in the early part of 1997. This is the highest growth rate since September 1994 (Annex, Fig. 11). One explanation could be that, now that most banks have imposed charges for handling cheques, households are holding more cash.

The picture of the money supply supports the impression of a recovery in private consumption.

Still, the picture of the money supply does support the impression of a recovery in private consumption in the second half of 1996. The latest money supply statistics suggest, moreover, that this tendency continued after the turn of the year.

The rapid increase in the *broader money supply aggregate (M3)* has fallen back, to 7.5 per cent in January 1997 (Annex, Fig. 11). The M3 component that consists of household assets was rising by 6.5 per cent, accompanied by a fall of over 1 per cent in household holdings of non-M3 interest-bearing securities (national savings accounts, National Debt Office accounts, premium bonds and private bonds). Households have thus continued to adjust asset portfolios and will probably go on doing so this spring as a result of low interest rates and maturing private bonds. Growth of the *broadest measure of liquidity*, which includes non-M3 assets, has also tended to move up since the beginning of 1996. In December 1996 the 12-month change was over 7 per cent, which is approximately 2 percentage points higher than in mid 1996 (Annex, Fig. 11).

Lending to the household sector by credit institutions shows rising 12-month changes since the autumn 1996, though the rate has been modest (Annex, Fig. 12). The new lending has come mainly from housing intermediaries but credit from finance companies has also grown, above all for car purchases. This tendency probably reflects the combination of falling interest rates and rising household income. To some extent, the credit statistics also mirror early renewals of house mortgage loans and an increased turnover in the housing market. In the business sector the tendencies are much the same—increased deposits and a growing stock of credit. The extent to which this indicates a tendency to finance more investment with loans is uncertain. Investment in recent years has been financed mainly from earnings. The good business liquidity has been manifested in larger deposits and increased investment in other assets.

An accelerating growth of the money supply and credit was already evident at the time of the December report. This trend has become stronger. Both the money supply and borrowing are rising faster, which supports the impression of a recovery in domestic demand.

FEW POSITIVE LABOUR MARKET SIGNALS

Compared with the preceding three months, the seasonally-adjusted number registered as unemployed in the period December—February rose by 29,000 persons. More than half of the increase is explained by a contraction of labour market programmes. The registered unemployment rate in February 1997 was 8.8 per cent, which was above the level of 7.7 per cent a year earlier (Annex, Fig. 9). Total unemployment (the registered component plus participants in labour market programmes) also moved up during the winter.

Registered unemployment in February 1997 was higher than a year earlier. Total unemployment has risen, too.

Employment has continued to fall. During the winter the level dropped by about 32,000 persons. The decline occurred above all in the public sector and construction. The number of hours worked also fell this winter.

The annual level of employment in 1996 was 24,000 persons down on 1995. A fall in the number of public sector employees accounted for most of this. Employment in manufacturing, on the other hand, rose by more than 7,000 persons but the whole of this increase occurred in the first half-year; in the second half the change in industrial employment was also negative.

There have been few positive signs in the labour market: a decreased number affected by discharge notices in recent months and an increased number of new job vacancies.

There have been few positive signs in the labour market. During the winter the number affected by discharge notices has tended to fall, accompanied by some increase in the number of *new* job vacancies. The number of *unfilled* job vacancies was roughly unchanged.

RIGIDITIES IN THE SWEDISH LABOUR MARKET

In recent years the ability of Sweden's labour market to adapt to changes in the demand situation seems to have worsened. One sign of this is a change in the relationship between unemployment and job vacancies (the Beveridge curve). The relationship illustrates the "matching process" in the labour market.[5] If vacancies rise as unemployment falls (or vice versa), this reflects increased (decreased) labour demand and is represented by a move along the curve. But an increase in vacancies without a fall in unemployment, or higher unemployment without fewer vacancies, is represented by an outward shift of the curve, suggesting a loss of matching effectiveness.

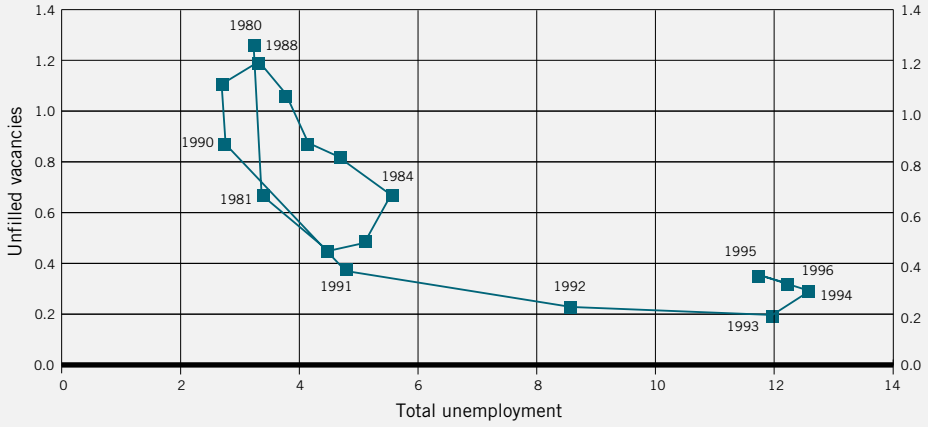
Labour demand fell sharply in the early 1990s; total unemployment[6] more than doubled from 1990 to 1992 at the same time as the number of unfilled vacancies fell by more than a third. From 1993 to 1994, on the other hand, total unemployment rose but so did the number of vacancies. This suggests that matching in the labour market has become less effective (Fig. 4).

Such a situation may arise for a number of reasons. Structures in the Swedish economy have changed dramatically in the 1990s. Besides affecting total labour demand, this has altered its com-

5 Described in, for example, Björklund, A. Edin, P-A., Holmlund, B. & Wadensjö, E. (1996), *Arbetsmarknaden* (The Labour Market), SNS Förlag, Chapter 8.

6 Defined as unemployment including labour market programmes, expressed as a percentage of the labour force including educational programmes (underlying unemployment).

Figure 4.
Total unemployment in relation to unfilled job vacancies (the Beveridge curve).* Per cent of labour force



Sources: Statistics Sweden and the Riksbank.
*Modified after Calmfors, L. (1994), Active labour market policy and unemployment—a framework for the analysis of crucial design features, *OECD Economic Studies*, No. 22.

position by sectors and occupational categories. All in all, the labour market has been required to become more adaptable. On top of this, the emergence of an "unemployment culture" may have made the unemployed less prone to look for work.[7] Another explanation for the altered relationship between unemployment and vacancies may be that longer periods of unemployment have partly deprived the unemployed of their occupational skills. The various explanations are interrelated in a complex manner, making it difficult, with the present state of knowledge, to assess their relative importance.

In general, however, the pattern in recent years suggests that Sweden is now experiencing the problems of persistently high unemployment that the rest of Western Europe has been facing in recent decades.[8] The question is whether unemployment will remain high if economic growth picks up in the coming years. Diminishing labour market efficiency implies that unemployment acts as less of a restraint on wage formation and the high unemployment becomes still more permanent. This could be one reason why 1995 settlements gave wage increases around 6 per cent even though unemployment was rising. Under such circumstances, a marked reduction of unemployment would seem to require a more adaptable labour market.

7 See Lindbeck, A. (1995), Hazardous Welfare-State Dynamics, *American Economic Review*, Vol. 85(2), May, pp. 9–15.

8 For a review of persistence mechanisms, see Apel, M. & Heikensten, L. (1996), Monetary policy, inflation and unemployment, Sveriges Riksbank *Quarterly Review* No. 3, pp. 5–23.

WAGE INCREASES STILL HIGH

The "underlying" overall rate of wage increases (negotiated components plus wage drift) in 1996 is judged to have been about 4.5 to 5 per cent. This is less than the registered wage increases in 1996, which averaged about 6 per cent (Table 1). The largest wage increases were noted in manufacturing, where wage drift was higher than in the preceding years, and in county councils. In these two sectors the registered rate of wage increases was almost 7 per cent. Wages in other sectors rose about 5 per cent. Excluding wage drift, the difference between the registered outcome and the negotiated wage increases[9] is explained by carry-over effects.[10]

Unit labour costs (ULC) rose almost 6 per cent from 1995 to 1996 in the economy as a whole. This was appreciably more than in the preceding years and it reflected a combination of rising wage costs and slower productivity growth. In the course of 1996, however, the increase in ULC slackened because the rate of wage increases fell back and productivity growth tended to improve (Annex, Fig. 10).

The future development of wages has been discussed in earlier inflation reports. The main argument for a more subdued tendency—regardless of the negotiating system that is adopted for 1998 settlements—is that among labour market organisations, expectations of inflation some years ahead had dropped from about 4 per cent in 1995 to less than 2 per cent at the beginning of 1997. Moreover, industrial profit levels are lower than at the time of the 1995 negotiations. It has also become obvious that firms now have appreciably less possibility of passing-through increased wage costs to consumer prices. This should strengthen the ability of firms to oppose high wage demands and curb wage drift.

There are many signs that Sweden has problems in the labour market that resemble those elsewhere in Western Europe and that the high unemployment is not exerting the desirable restraint on wage formation.

9 Estimated at 3.5 to 4 per cent for 1996.

10 The negotiated wage increases in 1996 were paid out earlier than in 1995.

The labour market situation should also favour a more subdued development of wage costs. The registered level of labour shortages—a good indicator of future wage drift—during 1996 was the same as in the period 1992-93. However, the labour market situation's effects on wage setting are difficult to assess. There are many signs that Sweden has problems in the labour market that resemble those elsewhere in Western Europe and that the high unemployment is not exerting the desirable restraint on wage formation. A probable explanation is that trade union wage policy does not pay sufficient heed to the high unemployment. Together with changes in labour demand and the prevailing rules in the labour market, this has tended to impair matching between unemployed persons and vacant jobs.

Wage negotiations in 1997 concern around 600,000 private sector employees and virtually all their unions want one-year agreements. That would make a coordination of wage negotiations feasible in 1998.[11] The wage demands in the 1997 negotiations indicate that wage formation has not yet been adapted to a low inflation economy. The union bids that have been tabled to date for 1997 are in the interval 3.5—4.5 per cent. In most cases the demands are defended on the grounds that existing settlements give wage increases of that magnitude for 1997, without acknowledging the different situation that prevailed two years ago. A sign in the right direction is that the 1997 settlement for the paper industry stopped short of 3 per cent.

RISING PRIVATE CONSUMPTION

The growth of private consumption picked up somewhat during 1996, particularly in the second half-year (Fig. 5). In annual terms, the fourth-quarter growth rate was not quite 2 per cent. The upswing came mainly from sales of passenger cars and food products; it also included clothes and services (charter travel, telecommunication services, financial services, betting and lotteries).

Consumption picked up although the mood became more pessimistic towards the end of 1996, after a temporary optimistic shift during the autumn (to judge from surveys of households' personal economic expectations; Annex, Fig. 7). As noted in earlier inflation reports, the main cause of the in-

11 The majority of settlements end in 1998; for 1997 they give negotiated wage increases of around 3.5 per cent.

Table 1.
Sectorwise wage formation.
Annual percentage change

	1993	1994	1995	1996
Private sector	3.0	2.6	4.0	6.3
manufacturing	3.4	3.7	4.8	7.4
trade	2.8	1.5	4.0	5.1
construction	3.8	2.8	3.9	4.3
Central government	7.3	2.8	2.5	5.7
Municipalities	3.1	3.2	1.0	5.3
County councils	3.6	3.6	2.8	6.6
Total economy	**3.5**	**2.8**	**3.2**	**6.1**

Sources: Statistics Sweden, Association of Local Authorities, Federation of County Councils and Riksbank calculations.

creased pessimism is no doubt the labour market situation. In the early part of 1997, however, there have been signs of households again becoming less pessimistic.

Everyday as well as infrequent purchases are expected to go on rising in volume according to the National Institute's services survey.

Retail turnover as measured by Statistics Sweden rose in the fourth quarter of 1996 at an annual rate of 1.5 per cent, which was more than in the third quarter (Fig. 5). According to the National Institute's services survey, retailers were relatively optimistic about the early part of 1997. Although expectations for the closing months of 1996 had not been entirely fulfilled, it was envisaged that the volume of both everyday and infrequent purchases would go on rising.

The number of new car registrations in the household sector was rising around the turn of 1996 at an annual rate of over 50 per cent. Of the new registrations in January and February 1997, directly imported cars made up over 10 per cent. House purchases, moreover, were about 25 per cent higher than a year earlier. As noted earlier, the increase in car and house sales was probably generated mainly by falling interest rates and real wage increases. Car sales have also benefited from the cut in the sales tax. House prices have fluctuated in recent years, with no clear trend. During 1996, however, it seems that an upward tendency began; the annual level was 1 per cent higher than in 1995 (Annex, Fig. 13).

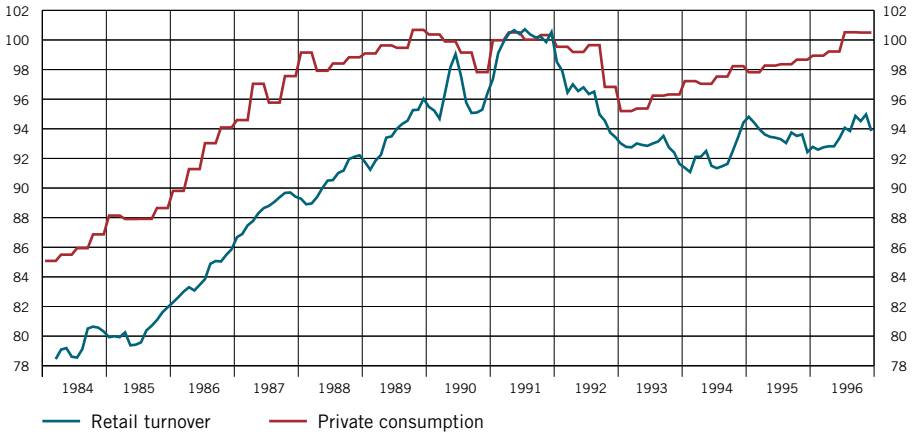
WIDER OUTPUT GAP IN 1996

The three methods for estimating the output gap (Whittaker-Henderson filter, unobserved component and production function) all show that in the fourth quarter of 1996 the registered level of production was below the potential level. As measured with these methods, the fourth-quarter output gap was between about –0.5 and –3 per cent (Fig. 6). In 1996 as a whole inflationary pressure from the demand side was lower than in 1995.

The Riksbank's assessments of sectorwise capacity utilisation, the labour market situation and price tendencies indicate that at the end of 1996 the economy had plenty of unutilised resources.

The Riksbank's overall assessment of sectorwise capacity utilisation, the labour market situation and price tendencies, indicates that at the end of 1996 the

Figure 5.
Private consumption and retail turnover.
Volume, seasonally adjusted quarterly data and moving 3-month average, respectively; index: 1991=100



Source: Statistics Sweden.

economy had plenty of unutilised resources. The output gap at that time is judged to have been around –2 per cent.

INFLATION EXPECTATIONS STILL FALLING

In February 1997 households expected that in the coming twelve months inflation would average 1.4 per cent, which is 0.3 percentage points lower than in November 1996 (Annex, Fig. 14). In the December 1996 surveys from the National Institute, manufacturing and service companies count on inflation one year ahead being about 1 per cent; compared with the previous survey in September 1996, these groups had lowered their expectations some tenths of a percentage point.

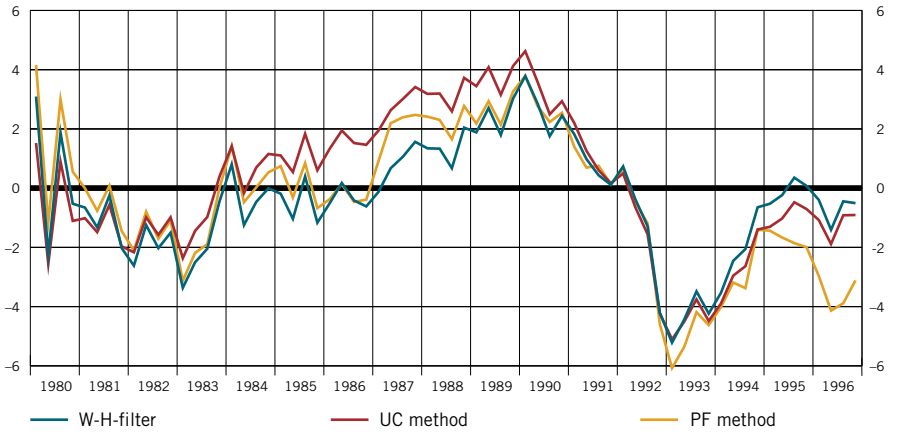
Surveys of agents in markets for labour, goods and money showed that in February, inflation some years ahead was still expected to be around 2 per cent.

Surveys of agents in markets for labour, goods and money showed that in February, inflation some years ahead was still expected to be around 2 per cent, which is much the same as in surveys from November 1996. Among purchasing managers and employer organisations, expectations of inflation both one and two years ahead are, on average, marginally higher than earlier, while among employee organisations and money market agents they are unchanged and somewhat lower, respectively. Looking five years ahead, the inflation expectations are much the same as in the November survey (Fig. 7; Annex, Table 2). The inflation expectations of money market agents in Prospera's survey are somewhat lower than in the February survey from Aragon even though the latter represent a downward adjustment of some tenths of a percentage point (Annex, Fig. 15).[12]

Forecasts by other observers of average inflation in 1997 and 1998 have been revised downwards in the early part of 1997. At the beginning of March it was envisaged on average that inflation would be 1.3 per cent for 1997 and 2.1 per cent for 1998. This is lower, by 0.4 and 0.1 percentage points, respectively, than the averages of forecasts published in December 1996 (Annex, Fig. 16).

12 The Prospera and Aragon surveys were both completed before the publication of the CPI for January 1997.

Figure 6.
Output gap calculated with three alternatives: the Whittaker-Henderson filter (W-H),* the Unobserved Component method (UC) and the production function approach (PF)**.
Per cent



*The W-H filter is based on a projection of actual GDP using the National Institute's forecasts for 1997 and 1998, that is, 2.7 and 2.4 per cent, respectively, and 2.4 per cent for 1999.
**Based on an estimate of 6.5 per cent for equilibrium unemployment in 1995–96 in Giorno et al. (1995), "Estimating potential output, output gaps and structural budget balances," OECD Working Paper No. 152.
Source: The Riksbank.

Interest and exchange rates

It is mainly via interest and exchange rates—the monetary conditions—that monetary policy influences the economy. These rates are of direct importance for future demand and inflation. Interest rates also contain information about the expected monetary stance and inflation expectations. Interest rates for the shortest maturities indicate market assessments of monetary policy in the near future, while long bond rates mainly mirror long-term confidence in economic policy as a whole. Exchange rate movements affect price setting directly via import prices and indirectly by influencing demand for Swedish products. The path of the exchange rate is likewise influenced by confidence in economic policy and inflation expectations.

The repo rate was lowered on 17 December from 4.35 to 4.10 per cent; since then it has not been changed. In the inflation report that was published on the same date it was noted that during the autumn of 1996 the outlook for inflation in the coming years had improved. In the course of 1996 the repo rate was lowered a total of 4.81 percentage points (Fig. 8).

The *shortest implied forward interest rates*[13] can be said to indicate the expected future repo rate. Since the publication of the December report these rates have risen. The upward movement began at the end of January. Whereas this indicator previously suggested further repo cuts, its current implication is that a repo rate low has been reached.

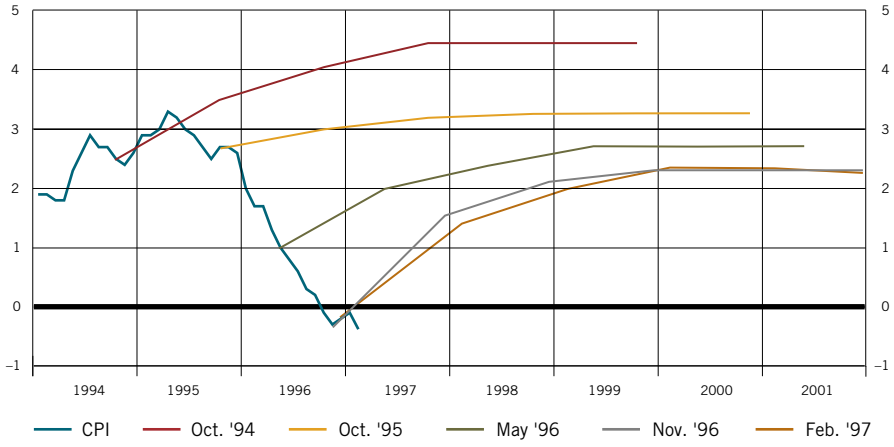
Monetary policy appears to have been relatively predictable in the short run during 1996.

Comparing market expectations with how the repo rate actually moves yields a picture of the extent to which the monetary stance has been congruent with its expected path. Expectations of the repo rate in the coming month or months have been largely fulfilled (Fig. 9). From this it can be concluded that during 1996 monetary policy appears to have been relatively predictable in the short run.

Further ahead, however, market expectations of the repo rate differed more widely from how this rate actually moved. One explanation for this is the new information, pointing to an increasingly favour-

13 A more detailed account of implied forward interest rates and how they can be used in the analysis has been presented in earlier inflation reports, e.g. 1996:4 (December), p. 17.

Figure 7.
Money market agents' inflation expectations*.
Per cent



*The paths for inflation show the rates expected one, two and three to five years ahead. The last two points are derived implicitly from the survey data.
Sources: Statistics Sweden and Prospera Research.

able outlook for inflation, that flowed in during 1996. In that the monetary stance was adjusted for this information, the short implied forward interest rates fell continuously during the year. The longer forward rates also moved down during 1996, indicating that the repo rate cuts were achieved without impairing confidence in economic policy's long-term commitment to price stability.

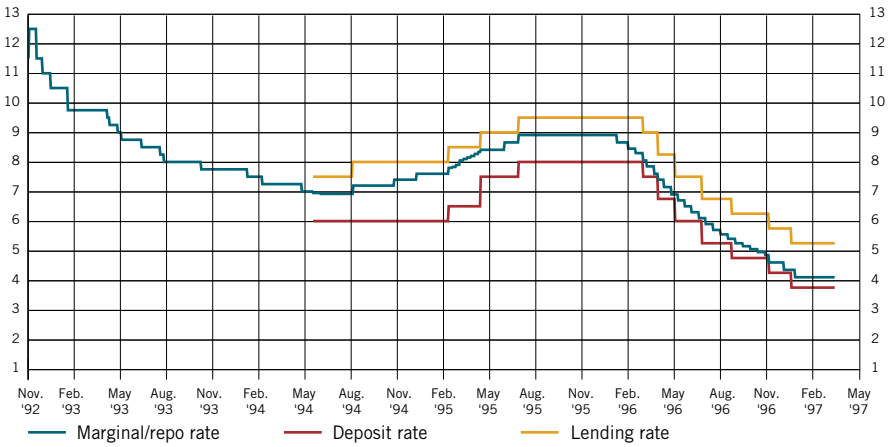
The *medium-term forward interest rates* have gone on falling; their level at the beginning of March was about 0.2 percentage points lower than in December 1996 (Annex, Fig. 17). The downward shift mainly reflects lower inflation expectations for the medium term; to a lesser extent it has to do with expectations of further repo rate cuts (compared with such expectations in December). The *long-term implied forward rates* have been largely unchanged since December 1996. Compared with their level a year ago, however, they have fallen about 1.7 percentage points. The movements in Swedish interest rates have accompanied a fall in the German implied forward rate and some increase in the US rate (Annex, Fig. 18).

The implied forward long-term interest rate difference with Germany is an indicator of changes in the credibility of economic policy's commitment to price stability.[14] Since December 1996 the difference with Germany has widened about 0.7 percentage points, to about 1.1 percentage points at the beginning of March. In the course of 1996, however, this difference narrowed markedly and is now about 1 percentage point smaller than a year ago.

The forward long-term interest rate difference with Germany has co-varied historically with the SEK/DEM exchange rate. A weaker period for the krona began in October 1996 (Annex, Fig. 21). Of the effective depreciation, a substantial part has come from a marked fall against the dollar and sterling. One contributory factor may have been a decreased short interest rate difference with other countries, above all the United Kingdom. On account of more favourable prospects for growth, US and UK monetary policy is relatively tighter than in many other countries in Europe. The fiscal consolidation in Europe and the price rise for oil may also have contributed to sterling's appreciation against other European currencies. Recently, moreover, the krona has probably been affected by unrest connected with the EMU process.

14 This assumes that German monetary policy represents full credibility.

Figure 8.
The Riksbank's instrumental rates.
Per cent



Source: The Riksbank.

Additional factors that may have contributed to the krona's depreciation include uncertainty about Sweden's position as regards the monetary union and the future direction of fiscal policy. The part played by these factors, which are capable of impairing long-term confidence in the low inflation policy, has probably grown recently. One indication is that since the middle of January the forward long-term interest difference has started to widen alongside a further depreciation of the krona.

All this means that from December 1996 to February 1997 the three-month ex ante real interest rate[15] rose 0.1 percentage points to 2.6 per cent, after falling almost 4 percentage points during 1996 (Fig. 10). The five-year ex ante real interest rate[16] moved up from 3.2 per cent in December 1996 to 3.3 per cent in February. In the same period the real (TCW) exchange rate weakened almost 3 per cent.

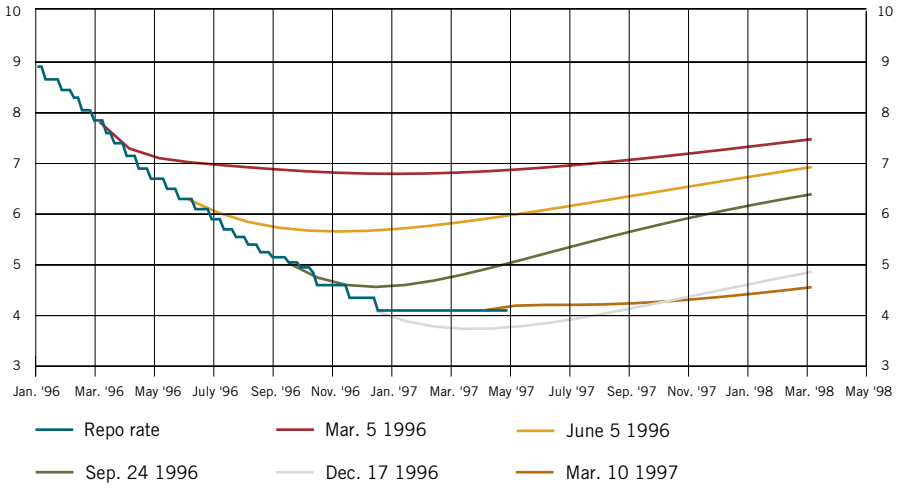
The monetary conditions have become somewhat more expansionary since the December report.

The somewhat higher real short-term interest rate in the early part of 1997 has thus been countered by a weaker real exchange rate. Since the December report, the overall monetary conditions—the impact of interest and exchange rates on demand—have become somewhat more expansionary.

15 The nominal rate for three-month treasury bills adjusted for the CPI change expected by households in the coming year.

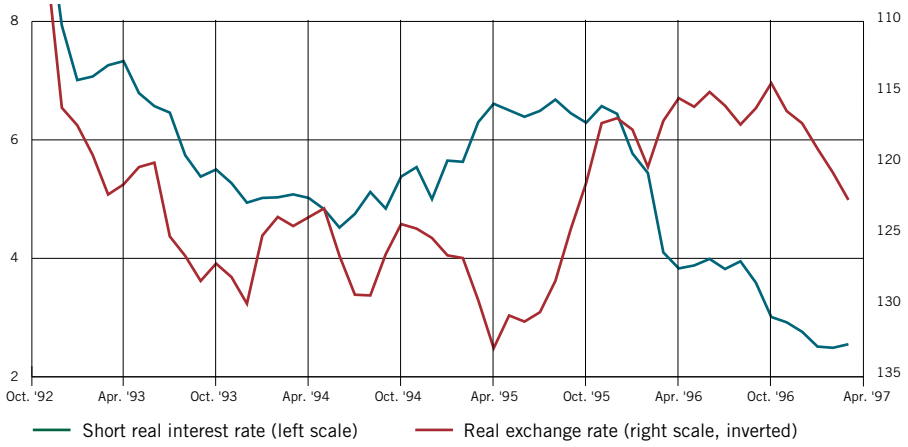
16 The five-year bond rate adjusted for financial investors' expectations of inflation five years ahead (Aragon).

Figure 9.
Actual and expected repo rate (implied forward interest rate). Per cent



Source: The Riksbank.

Figure 10.
Real three-month interest rate and real effective (TCW) exchange rate.
Per cent and index: October 1992=100



Source: The Riksbank.

Chapter 2

Inflation assessment March 1997

The assessment of inflation in the coming years is presented in this chapter, together with some conceivable alternative paths.[17] *The outlook is based on the analysis in Chapter 1. The monetary policy conclusions to be drawn from inflation's conceivable paths are discussed in Chapter 3.*

Recovery during 1996

An economic recovery has occurred in Sweden in the latter part of 1996 but the annual growth rate is somewhat weaker than foreseen in earlier inflation reports. The fall in public consumption was underestimated and stock reductions continued at a higher rate than expected, thereby tending to hold production back, particularly towards the end of the year. In the private sector, however, final domestic demand in 1996 largely followed the forecast path.

Private consumption picked up during the second half of 1996, accompanied by continued export growth. Demand for domestic consumption accordingly seems to be in the process of recovering and international demand for Swedish exports is still high. Thus, the development of demand appears to be good.

As destocking comes to an end, domestic and international demand should be sufficient to generate an accelerating growth of domestic production. Household financial assets are historically high relative to GDP and credit demand shows signs of turning upwards. It is therefore reasonable to suppose that private consumption will pick up by degrees in 1997 and 1998. This is accompanied by the prospect of persistently good export growth and a slackening of investment growth, above all in 1997.

The Riksbank concludes that GDP growth will rise in the coming years. In the main scenario, GDP growth in 1997 and 1998 is judged to be 2 and 3 per cent, respectively.

The Riksbank concludes that GDP growth will rise in the coming years. In the main scenario, the outlook for growth in 1997 and 1998 combined is judged to be much the same as in the December report, with rounded GDP growth rates of 2 and 3 per cent, respectively.

There are many indications of the existence of unutilised resources. They are to be found in the labour market situation, industrial production and investment, turnover in trade and in pricing at different stages. In the fourth quarter of 1996 the total output gap is estimated to have been about –2 per cent.

17 A technical assumption for the assessment is that economic policy remains unchanged (including unchanged instrumental rates). Some appreciation of the effective (TCW) exchange rate in the coming years is assumed, from the level of 119.

INFLATION PROPENSITY LOWER THAN EXPECTED

It is therefore considered that in the main scenario, growth in 1997 and 1998 will not entail capacity restrictions that would be liable to generate increased inflation. The available information on wages and wage negotiations in 1997 does not prompt any changes to the assessment in earlier inflation reports, that is, wage formation will gradually adapt to a low inflation economy. It seems, however, that the adjustment will not be sufficiently rapid and far-reaching to serve as a platform for an appreciable increase in employment.

The available information on wages and wage negotiations in 1997 does not prompt any changes to the assessment that wage formation will gradually adapt to a low inflation economy.

In the past twelve months, moreover, inflation expectations for the coming years have been lowered. In most surveys, the expectations one to two years ahead have been somewhat below the 2 per cent inflation target. There are also continued indications of increased competition, above all in markets for services, as well as a lower inflation propensity than we counted on.

Underlying domestic inflation in the coming years is expected, given an unchanged monetary stance, to be between 1.5 and 2 per cent.

All this suggests that in the coming years and given an unchanged monetary stance, underlying domestic inflation (the domestically generated component excluding changes in taxes and subsidies) will be between 1.5 and 2 per cent.

In view of a number of factors with transitory effects, during 1997 inflation as measured by the CPI is likely to be below the underlying rate. Even if market interest rates were to remain unchanged, *house mortgage interest costs* will go on falling in 1997 and for most of 1998 as such loans are renewed at the lower interest rates that were established in 1996. The downward movement of interest costs will be slowing but the effects on consumer prices will be substantial, at least in 1997.

The stronger *exchange rate* during 1996, together with falling oil prices, will also tend to keep import prices down during 1997. However, with the krona's depreciation since the previous inflation report in December 1996, the overall effect will be smaller. This inflation assessment starts from some appreciation of the nominal effective (TCW) exchange rate from the level of 119. This gives an exchange rate in 1997 and 1998 that is somewhat weaker than allowed for in the December report. It is calculated to raise the average level of registered inflation by some tenths of a percentage point in both 1997 and 1998.

As envisaged in the December report, inflation measured with the CPI will probably rise by degrees in the coming years.

As envisaged in the December report, we consider that in the coming years, inflation measured with the CPI will probably rise by degrees. However, this will mainly be a consequence of transitory factors, such as effects of interest and exchange rates, dropping out of registered inflation and of *changes in taxes and subsidies*. The latter are calculated to raise average inflation in 1997 by about 0.5 per cent, followed by much the same figure in 1998.

During 1997 inflation measured with the CPI is calculated to average around 0.5 per cent, followed by somewhat less than 2 per cent in 1998.

During 1997 the change in the CPI is expected to move up, to around 1 per cent at the turn of the year. The average level of inflation in 1997 is expected to be around 0.5 per cent. During 1998 registered inflation is likely to show some further increase, mainly because the fall in interest costs will be slowing. Moreover, as GDP growth picks up and the output gap rapidly narrows during 1998, some increase in underlying domestic inflation is conceivable, up to 1.5—2.0 per cent at the year-end. At the same time, the assumed ongoing appreciation of the exchange rate should continue to

subdue import prices in 1998. *During 1998 the rate of change in the CPI is estimated to go on rising so that the annual level is somewhat below 2 per cent.*

This inflation assessment means that although we now start from a somewhat weaker exchange rate, compared with the December report we now count on lower inflation. The path of inflation towards the end of 1996 and early in 1997 has been lower than expected on account of larger downward effects of a transitory nature. By itself, this lowers average inflation in the coming year compared with earlier calculations. In addition, recent developments provide further support for a decreased inflation propensity, which has prompted us to count on lower underlying domestic inflation than before. This also points to lower registered inflation in the years ahead.

TWO ALTERNATIVES

The essential factors for future inflation could develop differently so that, given an unchanged monetary policy, inflation is either lower or higher than we envisage. This warrants calculations of other conceivable paths for inflation, as alternatives to the main scenario. Two of the alternatives that are considered most probable are presented below.

Weaker private consumption might result in lower inflation compared with the main scenario.

• Weaker private consumption could lead to inflation being lower than in the main scenario. It is conceivable that the upswing in consumption around the turn of 1996 was generated mainly by the rapid real wage increases in 1996. If household consumption is largely determined by the actual development of income, the growth of consumption may be checked to the extent that household income rises more slowly in the years ahead. Moreover, persistently high levels of unemployment and uncertainty about future income could mean that household prudential saving remains high. With a weak increase in private consumption, GDP growth in both 1997 and 1998 might be around one half of a percentage point lower than in the main scenario. In this alternative, average inflation in 1998 could be around 1.5 per cent.

If the exchange rate remains weak and private consumption is stronger, inflation could be higher than in the main scenario.

• Another conceivable alternative is an exchange rate that remains weak and private consumption that is stronger than in the main scenario. The recent depreciation of the krona could be unchanged for a time or even continue as a result of, for example, uncertainty about the EMU process. In a scenario where consumption is growing rapidly, rising import prices imply higher inflationary pressure. The risks of higher inflation are accentuated in that a weaker exchange rate also implies increased demand for domestic products that compete with imports. In this alternative, compared with the main scenario the growth rate for 1997 and 1998 combined could be about 1 percentage point higher (with the emphasis on the latter year). Under such conditions it is possible that inflation in 1997 would average just over 1 per cent, while in 1998 it might approach the inflation target's upper tolerance limit.

Chapter 3

Monetary policy conclusions

The conclusions for monetary policy are considered in this chapter. Monetary policy's objective is price stability. The Riksbank has formulated this as limiting the annual increase in the consumer price index to 2 per cent, with a tolerance interval of ±1 percentage point. On account of the time lag before monetary policy measures affect inflation, the construction of monetary policy is based on the assessment of inflation in the coming two years. This assessment is presented in Chapter 2.

Inflation in the course of 1996 averaged 0.7 per cent. Falling interest rates, partly an effect of monetary policy, contributed to decreased interest costs for owner-occupied dwellings. In conjunction with, above all, a stronger exchange rate, this held back the change in consumer prices. During 1996 these factors generated a downward CPI effect of about 1 percentage point. While the underlying rate of domestic inflation fell in the course of the year, its annual level was approximately 2 per cent.

There are signs of a decreased inflation propensity in the Swedish economy that may have to do with increased confidence in the inflation target.

There are some signs of changes whereby the inflation propensity of the Swedish economy has decreased. This may have to do with increased confidence in the inflation target. It is quite probable that consumers have become more price conscious. Low, stable inflation makes shifts in relative prices more transparent and this in turn can make an automatic pass-through of costs to consumers more difficult. There have also been structural changes in the economy as a result of new rules and regulations, EU membership and new forms of competition. It should be added, however, that the comparatively low level of total resource utilisation makes such structural effects more difficult to evaluate.

In the December report it was concluded that the monetary stance was relatively well balanced and any room that might exist for further repo rate cuts was limited. New information about the economic situation is now available.

GDP growth in 1996 was lower than expected. This contributed to a path for inflation in 1996 and the early part of 1997 that was lower than the Riksbank counted on in the December report. However, the overestimation of inflation is due above all to transitory effects of falling interest rates and the stronger exchange rate in 1996. Increased competition and a reduced inflation propensity have also contributed, as is underscored by the path of consumer prices since the December report.

In earlier inflation reports in the past year the Riksbank has pointed out that the assessment of inflation is based in the main on information about re-

lationships between supply and demand, together with inflation expectations. Interest and exchange rates are important both because they affect the demand situation and as indicators of confidence in economic policy.

Provided there is stable confidence in economic policy's commitment to price stability, a weakening of the exchange rate generally has only short-run effects on price setting.

Exchange rate movements are highly important when forecasting inflation. The krona has fluctuated markedly since the end of 1992. This makes it a difficult factor in the context of monetary policy decisions.

Experience from recent years suggests that the direct impact of exchange rate movements on Swedish consumer prices has been limited. This is probably a combined result of weak demand and a decreased inflation propensity. Provided there is stable confidence in economic policy's commitment to price stability, a weakening of the exchange rate generally has only short-run effects on price setting. A depreciation may be a problem for monetary policy only when it acts as a sustained monetary stimulus—affecting growth and underlying inflation—and inflation expectations move up.

The value of the krona is not fixed, neither are there limits to its fluctuations. Monetary policy is conducted with the purpose of fulfilling the inflation target.

A starting point for the main scenario in this report is that the krona will appreciate from its level in recent months (in terms of the effective (TCW) exchange rate, from the level of 119). This is warranted by studies at the Riksbank which have shown that the krona is undervalued in a more long-term fundamental sense.[18] Although the assumed exchange rate is weaker than in the December report, the Riksbank counts on inflation being somewhat lower. Inflation in the course of 1997 is expected to average around 0.5 per cent, followed by somewhat less than 2 per cent in 1998. This assessment starts from an unchanged interest rate policy.

Monetary policy decisions presuppose a picture of the underlying inflation process. In this context it is of interest to observe underlying domestic inflation (the CPI excluding import prices, house mortgage interest costs and changes in taxes and subsidies). Inflation in this form is expected to be between 1.5 and 2 per cent in 1997 and 1998, with a rising tendency during this period.

Assessments of inflation two years ahead are uncertain and it is usually easy to pick out alternative scenarios. Two alternatives to the main scenario appear most probable at present:

- The first points to *lower inflation* as a consequence of weaker consumption. A weak development of household income in the coming year, persistently high levels of unemployment and uncertainty about future income could contribute to weaker growth and lower inflation.
- The other points in the opposite direction: *higher inflation* than in the main scenario. This could result from a weaker exchange rate, leading to higher growth and stronger inflationary pressure.

The main scenario and its underlying assumptions do not preclude somewhat more stimulatory monetary conditions because inflation in 1998 is expected to be somewhat under 2 per cent.

The main scenario and its underlying assumptions do not preclude somewhat more stimulatory monetary conditions. This is because inflation in 1998 is expected to be somewhat under the 2 per cent inflation target. However, as the composition of the monetary conditions—in terms of interest and exchange rates—is not controlled by the Riksbank, this does not necessarily mean that the instrumental rate can be lowered. The path of the exchange rate must also be taken into account.

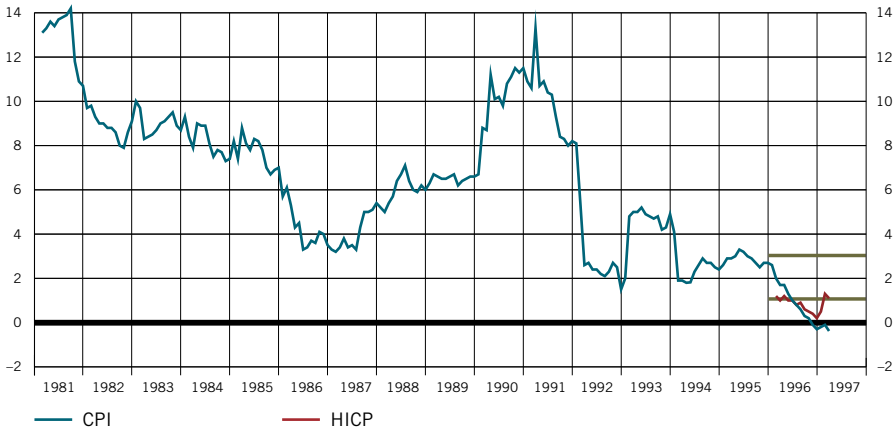
18 See Alexius, A. & Lindberg, H (1996), The krona's equilibrium real exchange rate, Sveriges Riksbank *Quarterly Review* No. 1

A comprehensive assessment warrants the conclusion that the monetary stance is well balanced.

A comprehensive assessment warrants the conclusion that the monetary stance is well balanced. Major changes have occurred in the past year, for instance in the repo rate. Time is needed to evaluate their effects. Developments in financial markets in recent months also have to be considered. This warrants a cautious line in monetary policy.

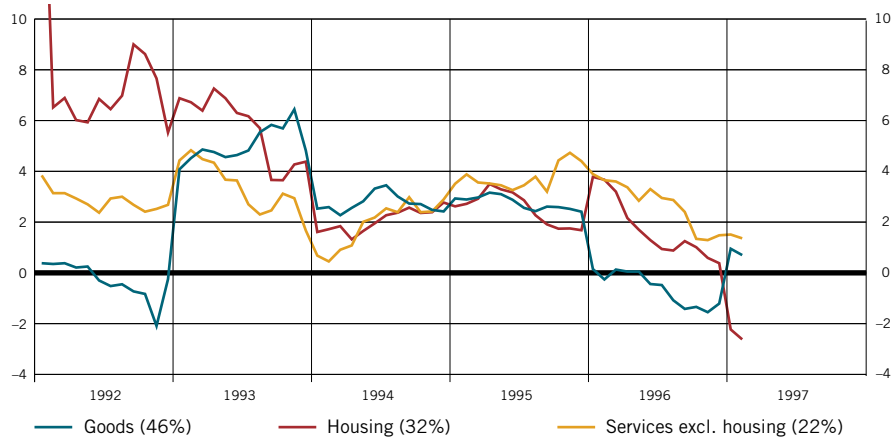
Annex

Figure 1.
CPI and HICP*.
Percentage 12-month change



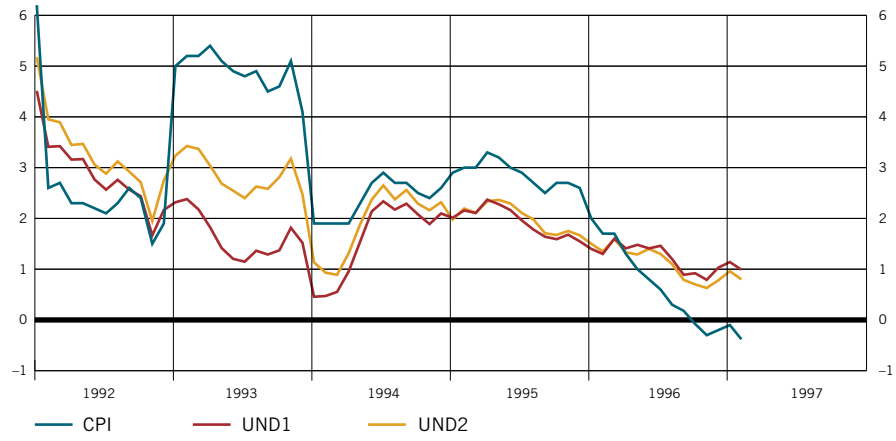
* Harmonised index for international comparisons of consumer prices.
Note. The horizontal lines from 1995 onwards represent the Riksbank's tolerance interval for the annual increase in the CPI.
Source: Statistics Sweden.

Figure 2.
CPI components.
Percentage 12-month change



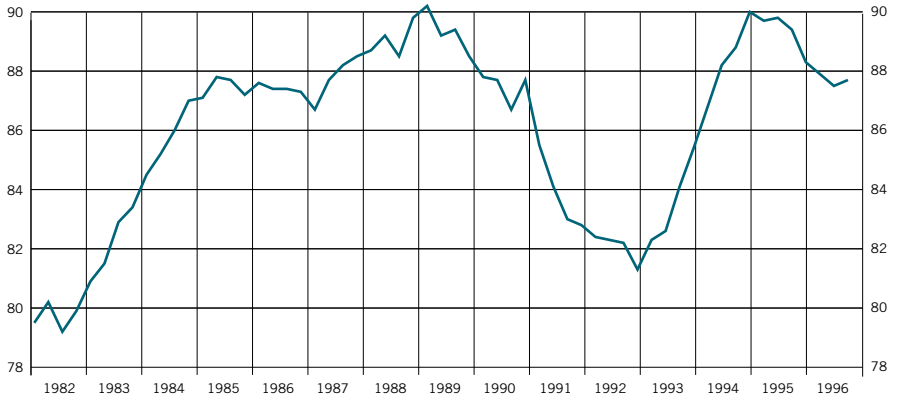
Note. The figures in parentheses are the component's CPI weight in 1997.
Sources: Statistics Sweden and the Riksbank.

Figure 3.
CPI and underlying inflation.
Percentage 12-month change



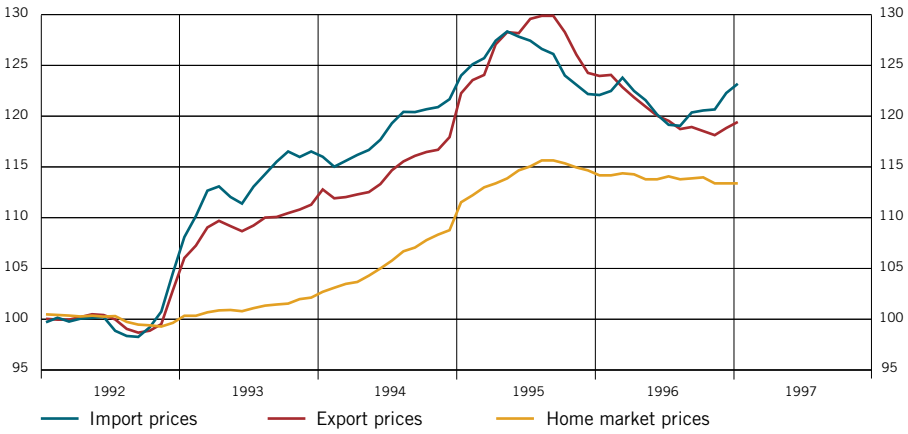
Sources: Statistics Sweden and the Riksbank.

Figure 4.
Industrial capacity utilisation.
Per cent



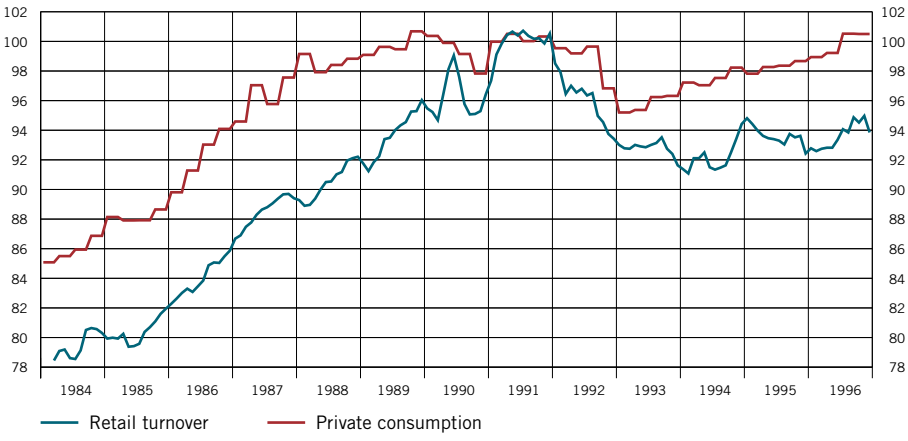
Source: Statistics Sweden.

Figure 5.
Import, export and home market prices.
Index: 1992=100



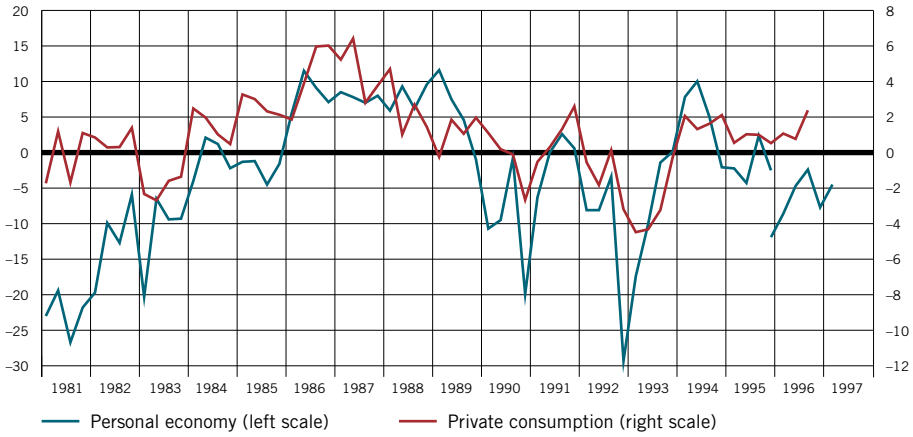
Source: Statistics Sweden.

Figure 6.
Private consumption and retail turnover.
Volume, seasonally adjusted quarterly data and moving 3-month average, respectively; index: 1991=100



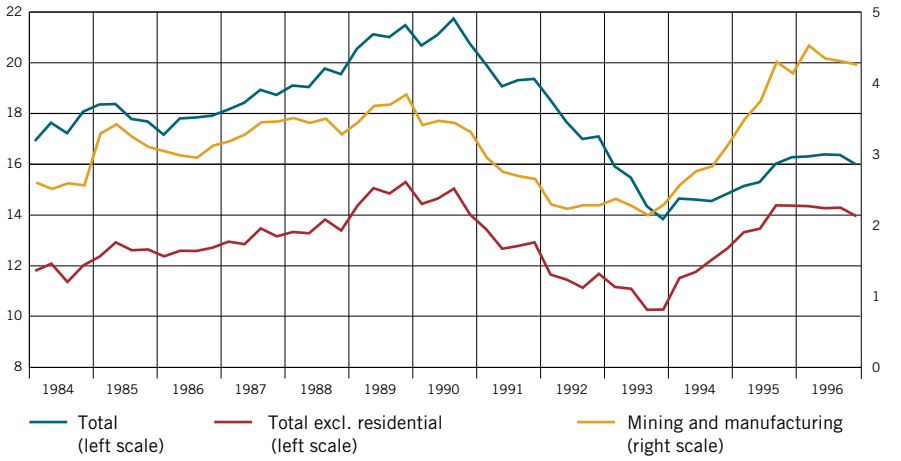
Source: Statistics Sweden.

Figure 7.
Households' personal expectations* and private consumption. Annual percentage change and net figure



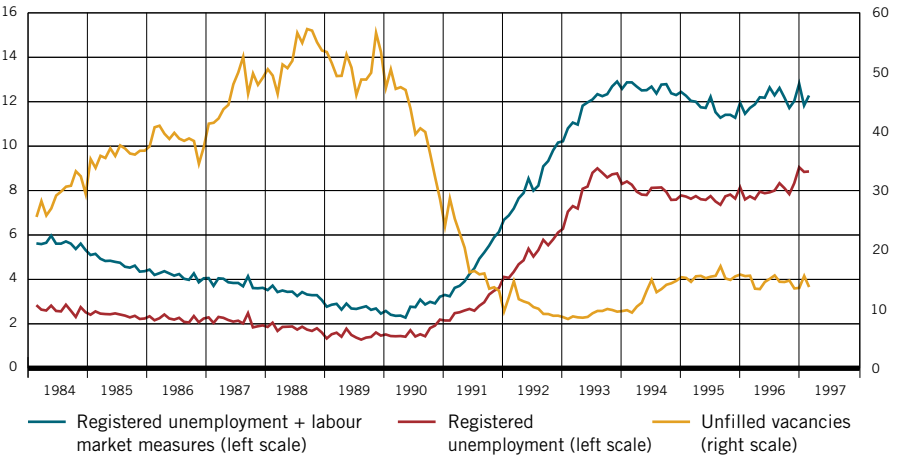
*The HIP-statistics were revised in October 1995.
Source: Statistics Sweden.

Figure 8.
Gross fixed capital formation relative to GDP: total, excl. residential and in mining and manufacturing. Seasonally-adjusted volume, per cent



Source: Statistics Sweden (National Accounts).

Figure 9.
Unemployment and job vacancies.
Per cent and thousands, respectively; seasonally-adjusted data



Sources: Statistics Sweden and National Labour Market Board.

Table 1.
Sectorwise wage formation. Annual percentage change

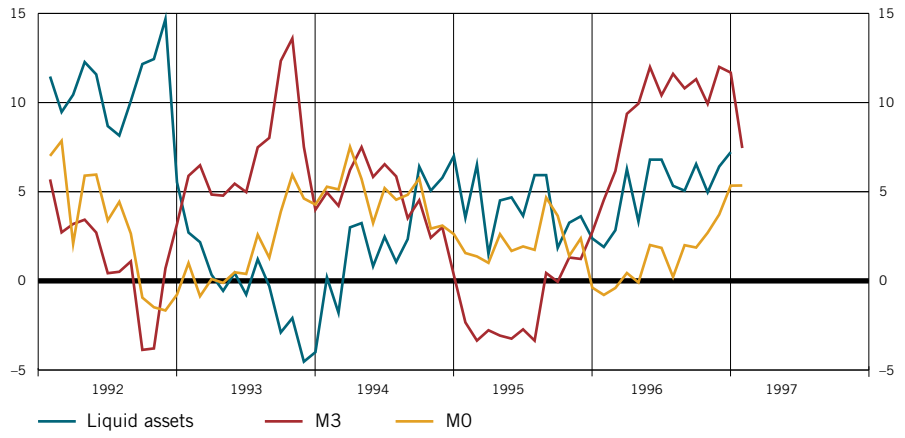
	1993	1994	1995	1996
Private sector	3.0	2.6	4.0	6.3
manufacturing	3.4	3.7	4.8	7.4
trade	2.8	1.5	4.0	5.1
construction	3.8	2.8	3.9	4.3
Central government	7.3	2.8	2.5	5.7
Municipalities	3.1	3.2	1.0	5.3
County councils	3.6	3.6	2.8	6.6
Total economy	**3.5**	**2.8**	**3.2**	**6.1**

Sources: Statistics Sweden, Association of Local Authorities, Federation of County Councils and Riksbank calculations.

Figure 10.
Unit labour costs (ULC) and labour productivity. Percentage 12-month change, moving four-quarter average

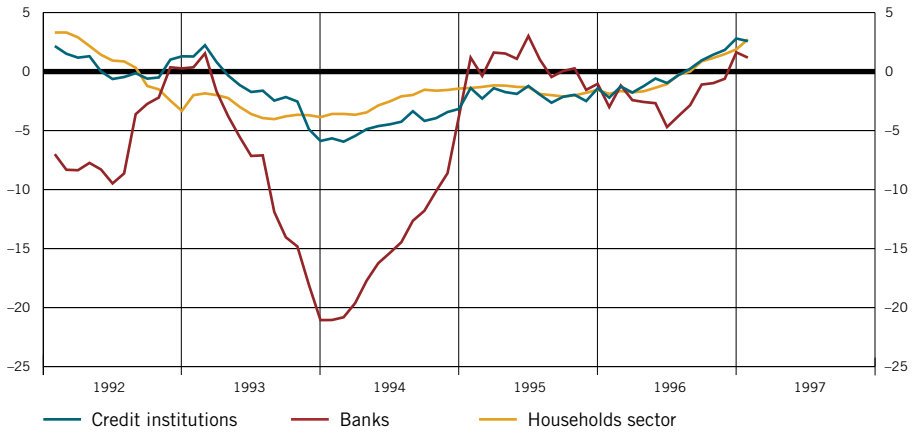
Source: Statistics Sweden (National Accounts).

Figure 11.
Money supply and liquidity. Percentage 12-month change



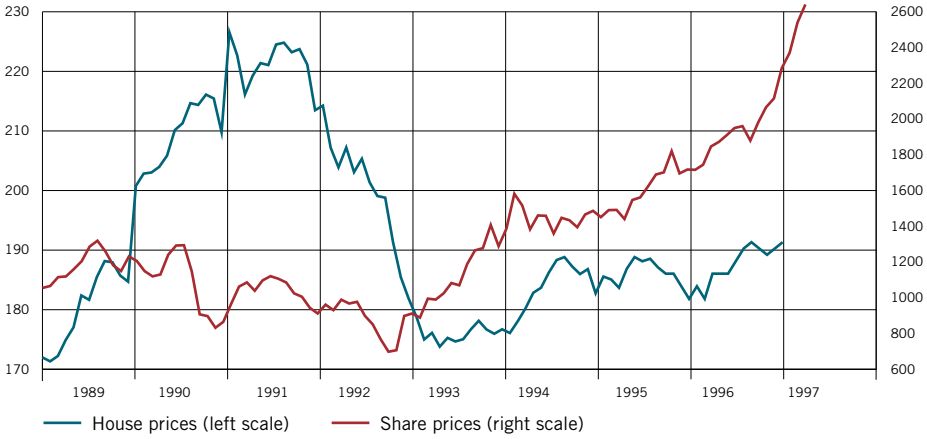
Note. The liquidity aggregate comprises the non-bank public's holdings of M3, certificates, treasury bills, national savings accounts, National Debt Office Accounts, premium bonds and private bonds.
Source: The Riksbank.

Figure 12.
Net lending by credit institutions: to resident non-bank public and household sector; and bank lending.
Percentage 12-month change



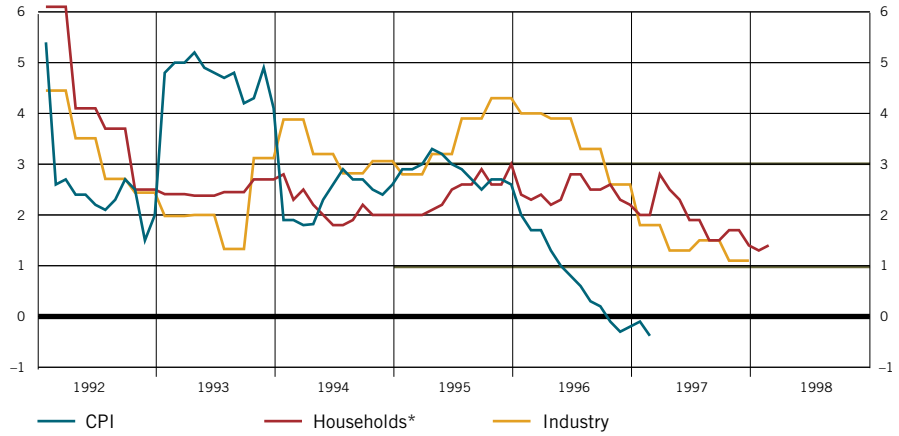
Note. From January 1995 onwards the figures include banks' repos with the non-bank public. Lending by housing institutions has been adjusted for the transfer of state housing loans to this category in July 1995.
Source: The Riksbank.

Figure 13.
Price index for owner-occupied housing (1981=100) and Stockholm Stock Exchange share price index (end 1979=100)



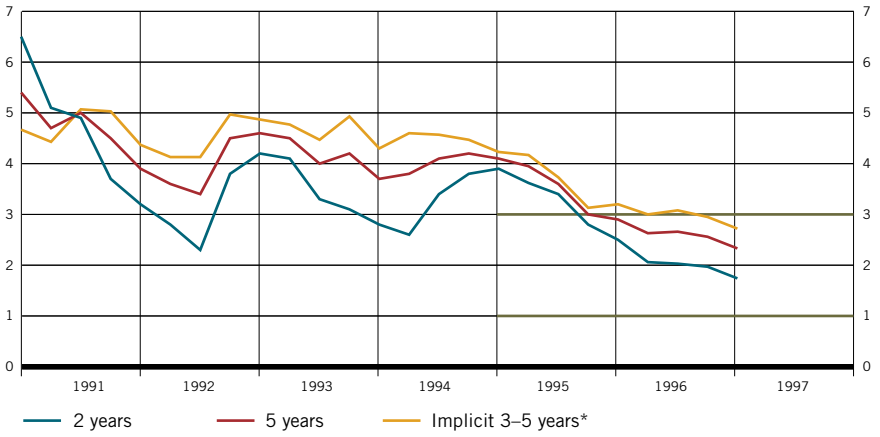
Note. Latest observation: 28 February 1997.
Sources: Statistics Sweden and Stockholm Stock Exchange.

Figure 14.
CPI and inflation expectations of households* and industry.
Percentage 12-month change



*As of 1996 the ten most extreme responses at either end are excluded; prior to 1996 the curve shows responses in the range 0—15 per cent.
Note. The curves for expectations have been shifted twelve months into the future so that they coincide with the period to which the expectations refer. The horisontal lines from 1995 onwards represent the tolerance interval of the Riksbank's target.
Sources: Statistics Sweden and National Institute of Economic Research.

Figure 15.
Bond investors' inflation expectations. Average annual percentage rates for the next two and five years



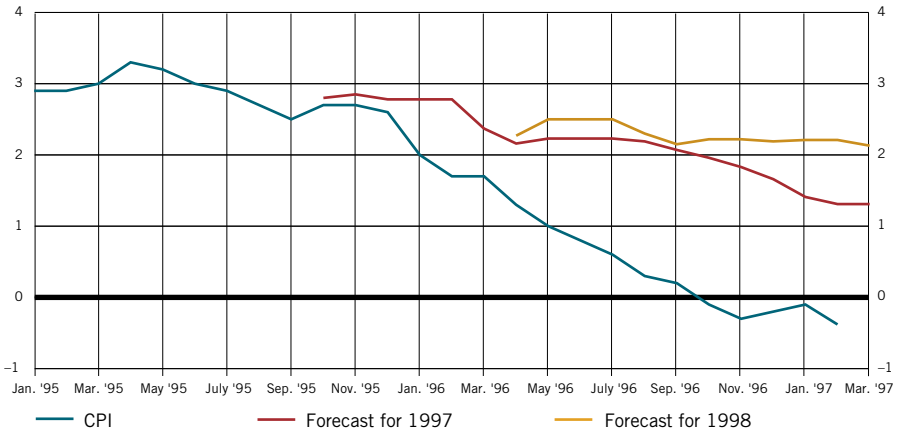
*The implied average expected inflation rate in the period from three to five years ahead, calculated by the Riksbank.
Note. The horisontal lines from 1995 onwards represent the tolerance interval of the Riksbank's target.
Source: Aragon Fondkommission.

Table 2.
Inflation expectations in February 1997 with the change from November 1996 in parentheses. Average figures, per cent and percentage points

	Annual change in CPI in:		
	1 yr.	**2 yrs.**	**5 yrs.**
Employer organisations	1.5 (+0.2)	1.7 (+0.2)	1.9 (0.0)
Employee organisations	1.4 (0.0)	1.6 (0.0)	1.9 (–0.2)
Purchasing managers, industry	1.6 (+0.3)	1.8 (+0.2)	2.1 (+0.1)
Purchasing managers, trade	1.6 (+0.2)	1.8 (+0.2)	2.0 (0.0)
Money market agents	1.4 (–0.1)	1.7 (–0.1)	2.1 (0.0)

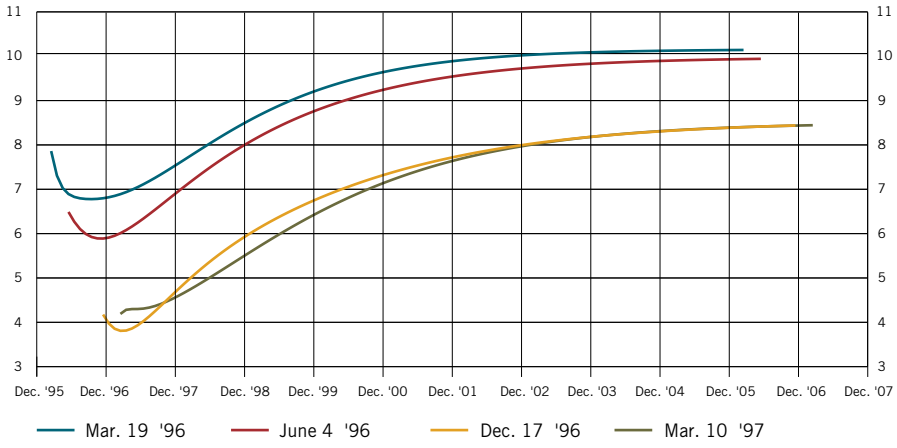
Source: Prospera Research AB.

Figure 16.
Conflation of inflation forecasts from selected forecasters. Per cent



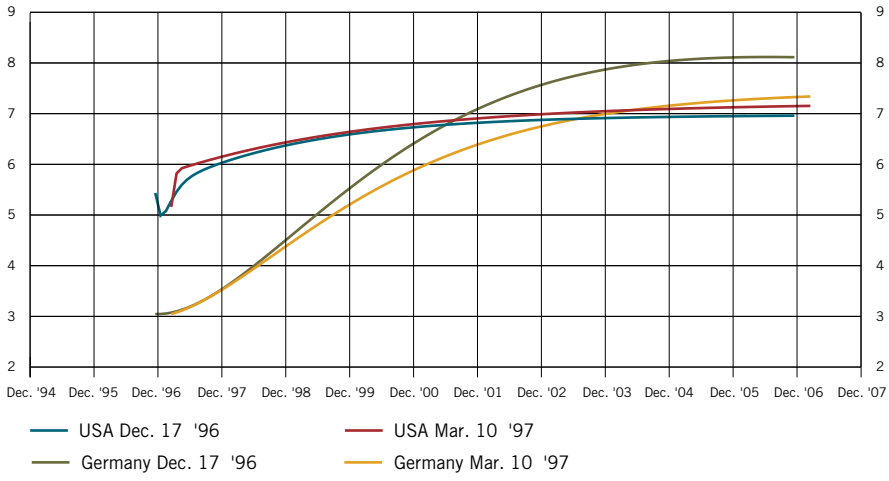
Sources: Forecasters and The Riksbank.

Figure 17.
Implied forward interest rate curves on 19 March 1996, 4 June 1996, 17 December 1996 and 10 March 1997. Effective annual rate, per cent



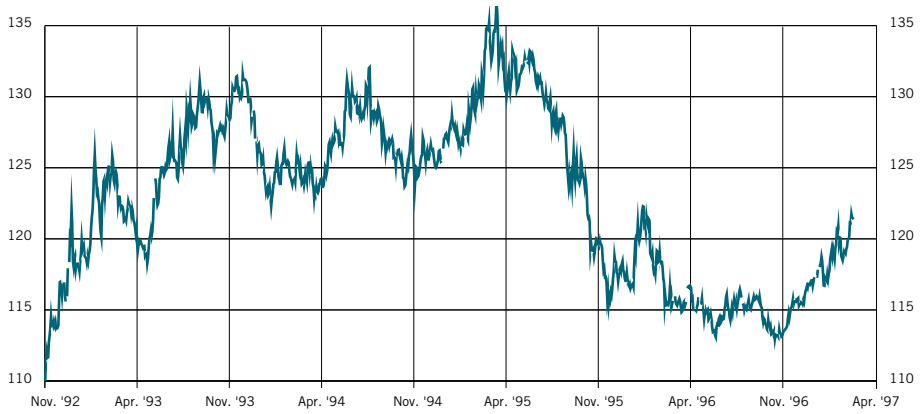
Source: The Riksbank

Figure 18.
Implied forward interest rates in the United States and Germany on 17 December 1996 and 10 March 1997. Effective annual rates



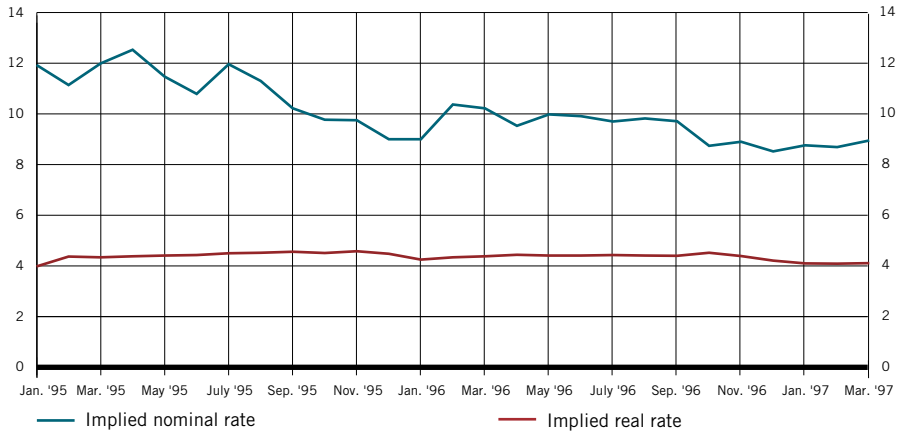
Source: The Riksbank

Figure 19.
Effective (TCW) nominal exchange rate. Index: 18 November 1992=100



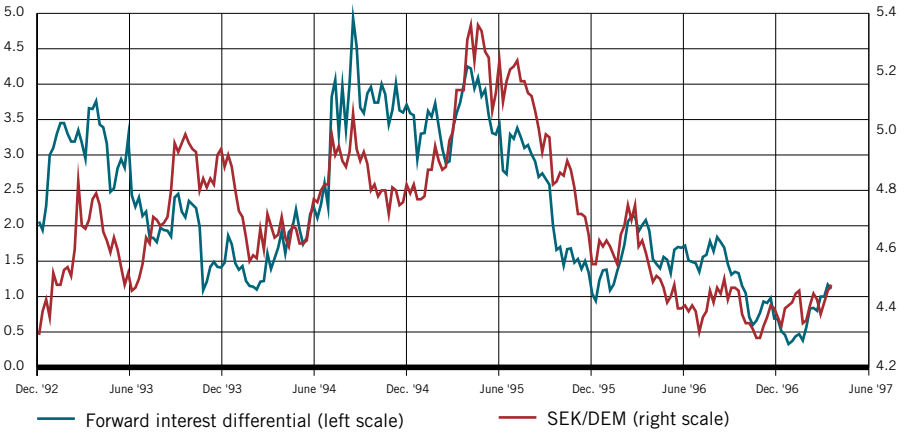
Source: The Riksbank.

Figure 20.
Implied real and nominal forward ten-year bond rates.
Per cent



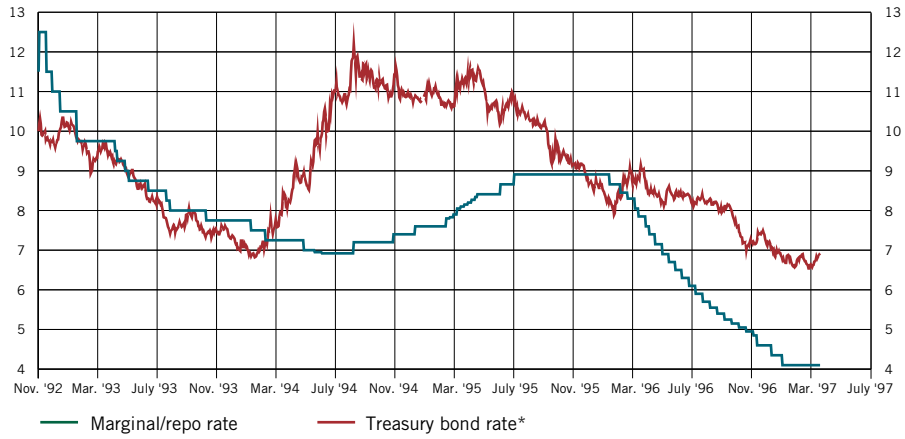
Sources: National Debt Office and the Riksbank.

Figure 21.
Forward ten-year interest rate differential with Germany and SEK/DEM exchange rate.
Percentage points and SEK/DEM



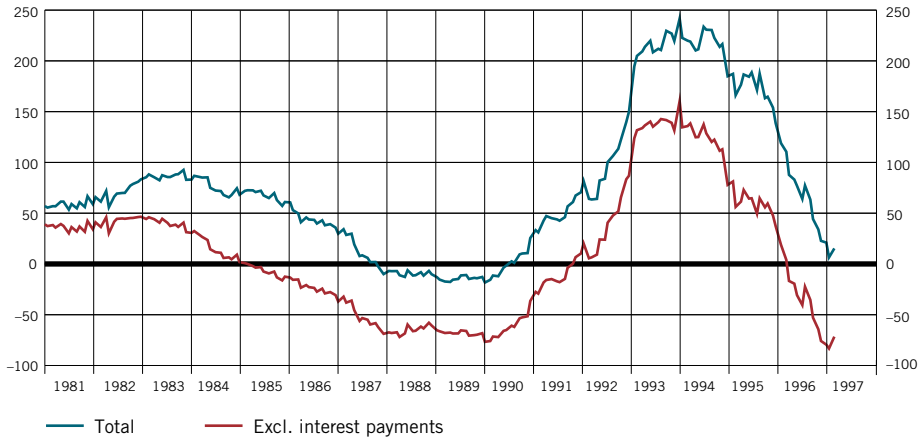
Source: The Riksbank.

Figure 22.
Repo rate and ten-year bond rate.
Daily quotations, per cent



*The ten-year treasury bond rate refers for 1992 to the Swedish issue no. 1030, maturing on 15 June 2001, for 1993 to issue no. 1033, maturing on 5 May 2003, for 1994, 1995 and 1996 to issue no. 1035, maturing on 9 February 2005 (from end September 1996 to end 1996 to issue no. 1038, maturing on 25 October 2006) and for 1997 to issue no. 1037, maturing on 15 August 2007.
Source: The Riksbank.

Figure 23.
Government borrowing requirement: total and excluding interest expenditure.
SEK billion, moving 12-month requirement



Source: National Debt Office.