

In this *Inflation Report*, Norges Bank's estimates for growth in domestic demand and employment for 1997 have once again been adjusted upwards, primarily reflecting three factors: First, the final deliberations on the government budget for 1997 resulted in a slightly more expansionary fiscal policy compared with the Government's proposal in the Final Budget Bill. Second, petroleum investment appears to be higher than previously assumed and third, growth in private consumption is stronger than projected in the December *Inflation Report*.

Private consumption expanded by almost 5% in 1996. Our estimate for growth in private consumption for 1997 is 4%. If this proves to be the outturn, consumption growth over these two years will reach 9%, while the household saving ratio will show a decline of a good 2 percentage points between 1995 and 1997. Such rates have not been seen since the previous cyclical boom in 1985-1986. Moreover, the sharp rise in house prices is highly reminiscent of developments in the mid-1980s.

There is reason to highlight the implications that may be associated with such developments. There are now signs of a debt-financed increase in asset prices, which may increase the risk of higher demand resulting in a renewed period of extensive debt consolidation in the enterprise and household sectors. In other words, the economic framework conditions may quickly change.

There is hardly any doubt that the sharp fall in interest rates through 1996 and 1997, in conjunction with marked wage growth, are some of the factors behind the brisk

growth in consumption. In addition, monetary policy has contributed to amplifying an already pronounced cyclical upturn because the krone exchange rate has been exposed to pressure, and the krone has appreciated. The central bank's mandate in such a situation is to orient instruments with a view to returning the krone exchange rate to its initial range over time.

The uncertainty attached to movements in the exchange rate is greater than usual, which has influenced the estimates presented in this report. If the exchange rate returns to its initial range, «core» inflation is projected at about 2¹/₄% in 1997 and 2¹/₂% in 1998.

These estimates point to continued moderate price inflation, although there is still a risk of an acceleration in price and wage inflation. An important factor in this context is the upcoming income settlement.

As monetary policy is oriented towards exchange rate stability, fiscal policy must assume responsibility for stabilising the economy.

It is well known that Norges Bank would have preferred an even tighter fiscal policy for 1997, with wider safety margins in view of the strong growth in the economy. As growth is projected to expand at a slightly faster pace in the period ahead, the issue of whether the budget programme is consistent with demand management considerations may be all the more relevant.

Kjell Storvik

NORGES BANK'S INFLATION REPORT

Pursuant to the Norges Bank Act, the central bank has an advisory function in the area of monetary, credit and foreign exchange policy. In its executive capacity, Norges Bank shall ensure the stability of the krone's value measured against European currencies. Sustained low price and wage inflation in line with or lower than that of trading partners is a necessary condition for a stable krone exchange rate.

The *Inflation Report* provides a survey of price trends and factors that influence price and wage inflation. It contains a broad review of the situation in the Norwegian economy and provides Norges Bank's professional evaluation of the outlook for prices for the next 12-18 months. In the leader above, the Governor provides a summary of Norges Bank's assessment of the situation.

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The cut-off date for the *Inflation Report* was 11 March 1997

1 INFLATION OUTLOOK

Growth in the Norwegian economy gathered further momentum in 1996. The projections in this report indicate that the economy during the next two years will be increasingly characterised by high capacity utilisation in enterprises, reduced unemployment and a shortage of labour for some occupational groups and regions. Mainland GDP growth is projected at 3¹/₄% this year and 2³/₄% in 1998.

Price inflation is projected at 2³/₄-3% in 1997, depending on movements in the exchange rate. Price inflation is estimated at 2-2¹/₂% in 1998.

The effects of changes in indirect taxes and electricity prices are the main explanation behind the relatively wide differences in the projections for consumer price inflation in 1997 and 1998, as has also been the case in earlier years. Excluding these effects, «core» inflation is projected at 2-2¹/₂% in 1997 and 1998, depending on movements in the krone exchange rate. «Core» inflation was 1¹/₂% in 1996.

1.1 The economic news

In the December *Inflation Report*, it was pointed out that growth in the Norwegian economy had accelerated in 1996 following three years of expansion. Activity in the economy was projected to remain at a high level, but growth rates were expected to moderate slightly in relation to recent years. The quarterly national accounts for the fourth quarter of 1996 and the most recent short-term indicators show that growth in the economy is continuing at a brisk pace:

- Mainland demand is still moving on an upward trend, with household consumption rising by almost 5% in 1996, ie the highest growth recorded since 1985/1986. Growth was particularly strong for purchases of consumer durables, especially cars. Although the growth in real income was high in 1996, households reduced their saving ratio by an estimated 1.3 percentage points between 1995 and 1996.
- Investment in the petroleum sector and mainland Norway picked up in the fourth quarter.
- Although there were signs of a levelling off in production towards the end of last year, mainland GDP rose by 3.2% in 1996. Mainland output, excluding electricity production, expanded by 3.7%.
- Employment growth is estimated at 55 000 in 1996, or 2.6%. Labour force participation rates are now at record levels, and there is a shortage of labour for some occupational groups and regions.
- Asset prices are rising sharply. Since our last *Inflation Report* the all-share index on the Oslo Stock Exchange

has advanced by 18%. In addition, available data indicate that house prices have risen further since the end of last year.

The year-on-year rise in consumer prices moved up from 1.8% in December 1996 to 3.0% in January and 3.3% in February of this year. The higher rate primarily reflects changes in indirect taxes in both 1996 and 1997 as well as an increase in electricity prices through the second half of last year and in January 1997. Excluding these factors, price inflation has still edged up the last two months.

Since the last *Inflation Report*, there have been changes in both interest rates and the exchange rate, and fiscal policy has shifted slightly in connection with the budget deliberations.

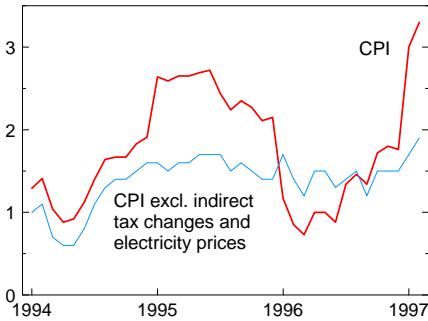
- The krone exchange rate was exposed to persistent pressures in periods of 1996 and at the beginning of 1997. Norges Bank responded by lowering its key rates on two occasions in January by a total of $\frac{3}{4}$ percentage point. The 3-month Euro-krone rate is now at about $3\frac{1}{2}\%$, ie a good half a percentage point below corresponding ECU rates. Most private banks have lowered their lending rates in pace with the fall in money market rates. Real after-tax interest rates for deposits and loans to households and enterprises are now down to a very low level. For example, the real after-tax interest rate for bank deposits is negative, and the most favourable real after-tax interest rate for housing loans is down to $\frac{1}{2}\text{--}1\%$.
- The krone exchange rate against the ECU has appreciated by 3.3% since the last *Inflation Report* was presented.
- The final budget for 1997 increases local government revenues by a good NOK 3bn compared with the Final Budget Bill. Growth in local government consumption is therefore expected to be slightly higher than assumed by the Government in the Final Budget Bill. The budget deliberations also resulted in increases in indirect taxes which will push up consumer price inflation in 1997 by a quarter of a percentage point.

1.2 Norges Bank's inflation projections

The projections in the December *Inflation Report* implied a scenario where consumer price inflation would edge up to about 3% at the beginning of 1997 and then drop to about 2% at the end of the year. This scenario primarily reflected changes in indirect taxes, higher electricity prices in the last half of 1996 and expectations of lower electricity prices later in 1997. Excluding changes in indirect taxes and electricity prices, price inflation was projected to move up during this year and next.

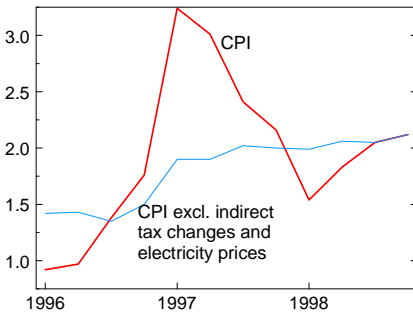
Since the last *Inflation Report*, price inflation quickened to 3.0% in January and 3.3% in February, which is slightly

Chart 1.1 *CPI, total and excluding indirect tax changes. 12-month rise in per cent*



Source: Statistics Norway and Norges Bank

Chart 1.2 *Consumer price inflation. Projections for CPI, total and excluding indirect taxes and electricity prices. 12-month rise in per cent*



Source: Statistics Norway and Norges Bank

higher than projected in December. The gap between our projections and the actual rise in consumer prices over these two months primarily reflects higher indirect taxes in the approved government budget and a further increase in electricity prices in January. Excluding these factors, «core» inflation rose from 1.5% in December to 1.7% in January and 1.9% in February, which is closely in line with the projections in the December *Inflation Report*.

The projections in the *Inflation Report* are based on assumptions about monetary conditions and fiscal policy. In line with previous practice, the average level of interest rates and the exchange rate over the last month is used as a technical assumption for the projections for 1997 and 1998. The assumption of an unchanged exchange rate is a pure technical assumption and does not reflect the orientation of monetary policy. Monetary policy instruments are geared towards returning the krone exchange rate over time to its initial range, as stipulated in the exchange rate regulation. A separate box discusses projections for economic developments based on a return of the krone exchange rate to the average for 1996. The differences between the two scenarios are fairly marginal for the projection period.

Excluding changes in indirect taxes and electricity prices, price inflation is now projected at about 2% both in 1997 and 1998, which is slightly higher than in 1996 but lower than projected in the December report. The downward adjustment in relation to the last *Inflation Report* is mainly related to technical assumptions about movements in the exchange rate, which contribute to a slightly lower rise in import prices and wage growth. When the estimated effects of changes in indirect tax and electricity prices are taken into account, the inflation estimates are slightly different from the projections in the last *Inflation Report*. On the assumption of an unchanged exchange rate, consumer price inflation is now estimated to drift up to 2³/₄% in 1997 followed by a decline to 2% in 1998.

In the December *Inflation Report*, wage growth was projected to edge up from 4¹/₄% in 1996 to 4³/₄% in 1997. Compared with the December report and based on the technical assumption concerning the exchange rate in this report, earnings in the exposed sector are expected to show a slight deterioration, which is the main factor behind the quarter percentage point downward revision of our wage growth projection for 1997, to 4¹/₂%. Against the background of lower interest rates, a slightly more expansionary fiscal policy and higher investment in the petroleum sector, activity levels are expected to be higher and the labour market tighter later in the projection period. Based on information about wage formation as embodied in Norges Bank's macroeconomic model RIMINI, wage growth is projected to reach 5% in 1998.

If the exchange rate returns to its initial range in the near

future, wage growth is projected at 4³/₄% in 1997 and 5¹/₂% in 1998, see box.

Import prices have shown a moderate rise for several years and are at the same level as at the beginning of the 1990s. This primarily reflects subdued international price inflation. Price inflation among our trading partners is expected to remain moderate in coming years, thereby contributing to a continued low rise in import prices. Historically, the rise in import prices is also influenced by domestic cost trends, domestic demand and competition. Higher domestic costs and continued strong demand growth point in isolation to higher import prices in the period ahead.

If the krone exchange rate remains at the current level, the rise in import prices will be restrained in the period ahead. However, there is normally a lag between changes in the exchange rate and changes in import prices. In the short term a change in the exchange rate will primarily translate into higher profit margins for foreign exporters, Norwegian importers and retailers. In the current situation with high domestic demand this tendency will normally be amplified. This may be related to the costs of adjusting retail prices, and operators at various stages of the distribution chain may choose not to change prices because of the substantial uncertainty associated with future exchange rate movements.

Based on the technical assumption about the exchange rate, import prices are projected to fall by 1 percentage point in 1997 and remain unchanged through 1998. Compared with the December report, the rise in import prices has been adjusted downwards by 2 percentage points both for 1997 and 1998. However, for 1997 some of the effect of falling import prices is expected to be offset by higher profit margins for Norwegian importers and retailers so that the effect on the rise in consumer prices will be weaker than indicated by the projection for import prices alone. Our projections are based on the assumption that higher profit margins will contribute ¹/₄ percentage point in 1997 and slightly less in 1998.

Changes in indirect taxes have also had a fairly substantial impact on consumer price inflation in recent years. Our projections are based on the assumption that increases in indirect taxes will push up the average rise in prices by 0.3-0.4 percentage point between 1996 and 1997. For 1998, we have assumed that indirect taxes will be changed in pace with projected price inflation.

Electricity prices rose sharply through the autumn of 1996 and in January 1997. Against the background of movements in forward prices for electricity, spot market prices and previously announced price changes, electricity prices are expected to decline later this year. On average, however, electricity prices are still expected to be 8% higher in 1997 than in 1996, contributing 0.3 percentage point to consumer price inflation in 1997. Changes in electricity prices are expected to reduce consumer price inflation marginally in 1998.

Table 1.1 *Consumer prices. Norges Bank's projections. Percentage change from previous year. Consensus forecast in brackets¹⁾*

	1997		1998	
USA	3	(2.9)	3	(3.1)
Japan	1 ¹ / ₄	(1.2)	1	(0.9)
Germany	2	(1.7)	2	(2.0)
UK	3	(3.2)	3 ¹ / ₄	(3.5)
Sweden	1 ¹ / ₂	(1.3)	2	(2.0)
Finland	1 ¹ / ₂	(1.4)	2	(2.0)
Denmark	2 ¹ / ₂	(2.8)	3	(2.6)
Norway's trading partners	2 ¹ / ₄	(2.1)	2 ¹ / ₄	(2.3)
EU-12-countries ²⁾	2 ¹ / ₄	(2.2)	2 ¹ / ₄	(2.4)

1) The average projection for consumer price inflation from various private institutions at September 1996.

2) ECU index weights.

Source: Norges Bank and Consensus forecast

1.3 Inflation expectations

Statistics Norway's general business tendency survey for the fourth quarter of 1996 shows that 38% of manufacturing enterprises expect higher prices in 1997 for products sold on the domestic market, whereas 14% expect a decline in prices. All total, manufacturing industry expects export prices to pick up in 1997.

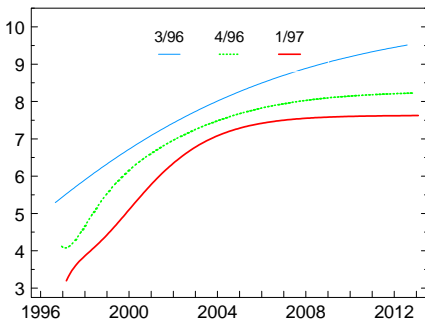
The Competition Authority's price projection for the period December 1996 to May 1997 is included in the latest report of the Technical Reporting Committee on Income Settlements (TRC). The forecast is based on information from private enterprises and public institutions concerning planned price changes during this period. According to the forecast, which was based on information available before the Storting's final decision on indirect taxes for 1997 and prior to the unrest in the foreign exchange market, prices will rise by 1.3% between December 1996 and May 1997, which implies an average price inflation of 2.6% between the first five months of 1996 and the first five months of this year.

The forward rate curve can provide information about inflation expectations in money and foreign exchange markets. This curve, which shows expectations about future short-term rates, is based on the effective yield on capital instruments in Norway with various maturities. Forward rates may – under certain conditions – be interpreted as the sum of the expected real rate of interest and expected future inflation. Chart 1.3 shows changes in forward rates over the last six months. Since the last *Inflation Report*, forward rates have fallen, probably in response to the recent interest rate cuts by the central bank, which have contributed to lower money market rates. Lower inflation expectations for the coming years are largely ascribable to the appreciation of the Norwegian krone.

Changes in Norwegian interest rates are heavily influenced by foreign interest rates. Changes in Norwegian forward rates may thus reflect changes in international interest rates. An alternative indicator is thus the differential between Norwegian and foreign forward rates, which may indicate changes in inflation expectations vis-à-vis other countries. However, there is substantial uncertainty attached to the interpretation of these calculations. The differential against German forward rates has narrowed in recent months, particularly for the first years, see Chart 1.4. This may indicate a decline in inflation expectations in Norway in relation to Germany. As a result of the cyclical slump, inflation expectations in Germany are very low for coming years.

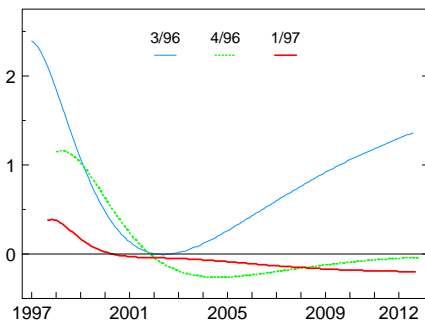
Norges Bank collects price inflation projections from 14 private institutions. For 1997, the institutions expect prices to rise by 2.4%, which is slightly lower than our projection. The price estimates range between 1.9 and 3.2%. Twelve institutions have also provided estimates for 1998. These institutions expect an average price inflation of 2.2% in 1998, with the lowest rate at 1.6% and the highest estimate at 3.9%.

Chart 1.3 *Forward rates in Norway. Expected short-term rates in per cent*



Source: Norges Bank

Chart 1.4 *Differential between expected short-term rates in Norway and Germany in percentage points*



Source: Norges Bank

Table 1.2 Various institutions' projections for consumer price inflation in Norway in 1997 and 1998¹⁾. Percentage change from previous year

	1997	1998
Ministry of Finance ²⁾	2 1/2	-
Statistics Norway ³⁾	1.8	1.2
TRC ⁴⁾	2.5	-
OECD ⁵⁾	2.5	2.4
Norges Bank	2 3/4	2
Private institutions ⁶⁾		
highest estimate	3.2	3.9
lowest estimate	1.9	1.6
average	2.4	2.2

1) Latest official projections from the respective institutions.

2) Projection from December 1996.

3) Unchanged exchange rate from January to end of period.

4) Based on unchanged average exchange rate from 1996 to 1997.

5) Consumption deflator.

6) Based on projections from 14 private institutions.

Among the public institutions the inflation projection published by Statistics Norway is lowest as this institution has based its projection on the exchange rate prevailing as from January of this year, whereas the Technical Reporting Committee and the Ministry of Finance have used the exchange rate for 1996.

1.4 The risks to the inflation outlook

Norges Bank's inflation forecast is based on assumptions concerning a number of variables that are not determined in our macroeconomic model RIMINI. Our inflation reports are based on technical assumptions about interest and exchange rate movements. Because of the special situation in the foreign exchange market, we have in this report included two boxes to illustrate the effect of changes in the technical assumptions concerning interest and exchange rates.

Other types of risks to the inflation outlook also reflect the uncertainty associated with historical relationships incorporated in the model, see Chart 1.5. There is an 80% probability that the innermost interval will reflect actual inflation rates and a 95% probability that inflation rates will be in the outermost interval. In addition to developments in the mo-

Assumptions regarding movements in the exchange rate

The krone appreciated towards the end of 1996 and in January this year. On 10 February the ECU index was 96.3. In the subsequent period to 10 March, the krone depreciated by 2.4%. The average in the period 10 February to 10 March was 97.4, which is around 5% stronger than the average exchange rate in 1996.

The exchange rate regulation, issued in May 1994, defines Norges Bank's mandate for the implementation of monetary and exchange rate policy. The regulation states that "in the event of significant changes in the exchange rate, monetary policy instruments will be oriented with a view to returning the exchange rate over time to its initial range".

Projections presented in this *Inflation Report* are based on the technical assumption that the effective exchange rate remains the same as the average for the period 10 February - 10 March. This assumption does not reflect the orientation of monetary and exchange rate policy, which is based on the above quote from the exchange rate regulation.

In this box we will therefore look at the effects of a reversal of the appreciation in the krone ex-

change rate, based on the technical assumption that the effective exchange rate will return to the average level prevailing in 1996 from the second quarter of this year. This assumption entails that the exchange rate in 1997 will be roughly in line with the assumptions in the last *Inflation Report*.

As mentioned otherwise in this report, it will take time before a sustained appreciation of the krone exchange rate translates into lower import prices and lower consumer prices. This means that a swift return to the exchange rate's initial range may have a small impact on price inflation. However, the extent of this effect is uncertain and probably depends on how quickly the exchange rate depreciates.

Several factors may result in higher wage growth. The effect on domestic prices may translate into higher nominal wage growth in order to achieve a given real wage growth. Export enterprises' profitability is rising, and the room for wage growth in these enterprises will therefore be greater. If these enterprises are wage leaders, higher wages in export sectors may also feed through to other sectors. Increased demand for Norwegian goods will then result in greater la-

ney and foreign exchange markets, the factors below may result in higher price inflation:

- A catch-up in pay following moderate wage increases in the first half of the 1990s may entail higher wage growth.
- Variations in growth may generate greater pressures in parts of the labour market than expected, which may in turn result in higher wage growth in some sectors and in the economy as a whole.
- A relaxation of fiscal policy in relation to our estimates will result in higher demand than projected in this report.

bour demand. This may also contribute to higher wage growth.

A shift calculation based on our macroeconomic model RIMINI indicates that if the exchange rate returns to the 1996 level, consumer price inflation will move up by quarter of a percentage point in 1997 and around half a percentage point in 1998, compared with the alternative where the exchange rate remains unchanged at the current level. Price inflation could therefore be as high as 3% this year and around 2¹/₂% next year. According to RIMINI, wage growth may then reach 4³/₄% in 1997, increasing further to around 5¹/₂% cent in 1998.

These estimates are based on assumptions about this year's wage settlements which are largely established. The model does not take account of this, however. The difference in wage growth in the two scenarios may therefore be smaller than indicated by the model-based calculations.

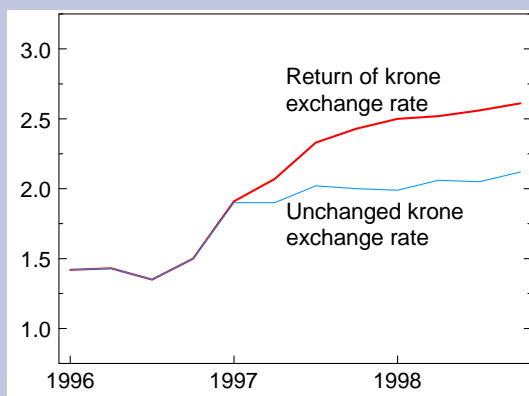
The effects on the real economy of a return of the exchange rate are fairly small. RIMINI calculations indicate that higher prices will quickly

feed through to wages so that real wages do not show any substantial change. This isolated effect of a depreciation on private consumption is thus marginal. A depreciation of the krone affects the exposed sector in particular. Production and investment in this sector rises but as price elasticity for both imports and exports is relatively small, the volume effects are not substantial.

Overall, calculations based on RIMINI indicate that mainland GDP will not be affected to any substantial extent by movements in the exchange rate, but growth in 1998 may be estimated at 3% if the exchange rate returns to the 1996 level, against roughly 2³/₄% if the exchange rate remains unchanged. Employment growth will remain largely unchanged in 1997, but will increase by a quarter of a percentage point next year.

The calculations indicate that, in isolation, developments in the real economy are only affected to a limited extent by the various assumptions regarding the exchange rate in 1997 and 1998. It is primarily the nominal path that will change, which reflects the technical assumption that nominal interest rates are the same in both scenarios. This entails that the scenario with a weaker exchange rate and higher inflation results in higher domestic demand.

Alternative scenarios for CPI (excluding changes in indirect taxes and electricity prices)



Effects of a return of the exchange rate to the 1996 level

	1997		1998	
	% change in growth	Estimate	% change in growth	Estimate
Mainland demand	0	4	1/2	3 1/2
Mainland GDP	0	3 1/4	1/4	3
Employment	0	2	1/4	1 1/2
Annual wages	1/4	4 3/4	1/2	5 1/2
Consumer prices	1/4	3	1/2	2 1/2

- Real after-tax interest rates close to zero may result in lower saving and higher-than-projected consumption based on both current income and debt-financing.

Forces that may lead to a lower rise in prices than projected are:

- The policy of wage moderation may have a greater impact on this year's wage negotiations than assumed. Furthermore, weaker earnings in the export industry may result in lower-than-projected wage growth.
- A stronger-than-projected expansion of the labour force may attenuate pressures in the labour market.

Effects of lower interest rates in a cyclical upturn

According to the RIMINI model, a 1 percentage point decline in interest rates will result in a $3/4\%$ rise in domestic demand after two years and an increase of around $1\frac{1}{2}\%$ after four years. The effects of higher demand on domestic production are to some extent offset by increased inventory decumulation and higher imports. In the model, a 1 percentage point decline in interest rates only has a marginal effect on price and wage inflation in the first two years. Productivity will increase in the short term because production is adjusted faster than employment. According to RIMINI, the effects on the labour market are moderate and thus only contribute to a marginal increase in price and wage inflation over a one to two year horizon. A more detailed discussion of the effects of changes in interest rates in RIMINI was presented in a separate box in the *Inflation Report*, 1/1995.

The figures derived from RIMINI and other macroeconomic models reflect the historical information embodied in the models. For RIMINI, the data are primarily from the 1980s and early 1990s. Such empirical data provide little basis for evaluating changes in the underlying structure of the economy. The deregulation of the credit market in the mid-1980s is an example of such structural shifts. The data will not always provide a sufficient basis for evaluating the effects of changes in interest rates in a situation that deviates from previous experience. We have very little experience concerning the effects of changes in interest rates in a cyclical upturn in an economy where the credit supply is determined by the market. Data from

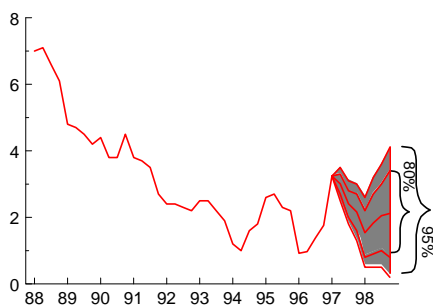
the mid-1980s can provide some guidance, but it may be difficult to differentiate between the effects of low interest rates at the time and the effects of deregulation.

An assessment of the current situation indicates that adjustments should be made for at least two factors in the model:

- It takes more than a year for a fall in money market rates to feed fully through to bank interest rates in RIMINI. Increased competition among banks seems to have reduced this lag compared with the information on which RIMINI is based. There is also reason to believe that interest rates in large state banks, eg the Norwegian State Housing Bank, will now shadow market rates more closely than previously.
- The RIMINI model contains a labour-hoarding effect, which is an indication of companies' general reluctance to change workforce levels in response to changes in the business cycle. This will result in increased production and higher productivity growth as demand rises, rather than higher employment. In the current phase of the business cycle, however, many companies are operating at high capacity utilisation and the potential for higher production without an increase in employment may be limited. It is therefore highly likely that a further rise in aggregate demand will not result in higher productivity gains to the same extent as at the start of an upturn.

If these adjustments are incorporated in the RIMINI model, domestic demand will be 1 percentage point higher and employment half a

Chart 1.5 *Uncertainty in the inflation projections. 12-month rise in per cent*



Source: Statistics Norway and Norges Bank

- A tighter-than-projected budget may reduce demand pressures in the economy.
- Electricity prices may fall by a greater margin than assumed.

There is also substantial uncertainty attached to movements in oil prices. If oil prices continue to fall, in line with recent tendencies, domestic costs may rise at a slower pace. Major fluctuations in oil prices may also have an effect on the exchange rate. It is therefore uncertain what the effect of lower oil prices on inflation will be in coming years.

Another uncertain factor is how a possible reform of the pension system, to be negotiated during this year's income settlements, will influence price and wage inflation in the period ahead.

percentage point higher after two years than if interest rates had remained unchanged. After four years, domestic demand and employment will be 2 and 1¹/₄ percentage points higher, respectively. Wages will increase by half a per cent after two years and by 1¹/₄% after four years. The effect on prices is relatively moderate; consumer prices will be a quarter per cent higher after two years and half a per cent higher after four. House prices show a good 3% increase after two years and a good 6% after four.

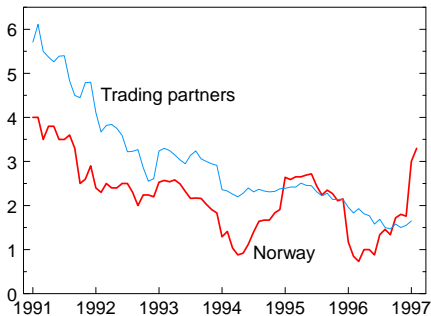
It must be emphasised that these estimates represent isolated effects of a fall in interest rates. The effect of the change in interest rates that has in fact taken place in the economy over the last year will be partly offset by a reduction in other demand components, through fiscal policy for example. On the other hand, in the current situation, changes in interest rates are being accompanied by a sharp rise in house prices and employment, among other things. The rise in house prices over the last year has, for example, provided households with wealth gains which can be conservatively estimated at NOK 70bn. It is uncertain what share of these gains will translate into higher demand. The overall picture resulting from this is reflected in our economic projections in this report.

The estimates also illustrate that the time lag associated with the effects of a fall in interest rates is relatively long, but the duration of these lags is uncertain. This also depends on other conditions in the economy and is probably sensitive to changes in private sector expectations.

Another element of uncertainty relates to the extent to which the demand for labour can be met by an increase in the labour force. The estimated effects on employment may seem substantial taking into account the current situation in the labour market. The calculations derived from the model are based on the assumption that the flexible adaptation of the labour force observed in Norway so far in the 1990s will continue. This flexibility is not unlimited. Labour force participation rates are now higher than in the peak year 1987, and the size of the reserves still available in the economically inactive segment of the population, that can be utilised in the short term without a general increase in the wage level, is uncertain. Furthermore, a larger-than-assumed share of the increase in demand may translate into higher imports rather than increased domestic output and employment.

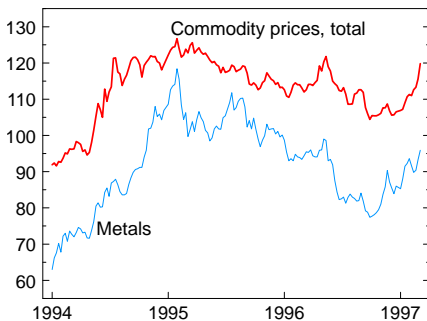
Traditional model-based calculations will normally not be able to indicate whether a fall in interest rates may trigger a significant shift in expectations and a sharp rise in demand, for example on the basis of realised and expected asset gains. To the extent that interest rates, in addition to the change, have an impact - which is indicated by the experience of the mid-1980s - household reactions to interest rate changes may be stronger when the real rate of interest approaches zero or falls below zero than in the case of a higher real interest rate. The effects may therefore be greater than those estimated above.

Chart 2.1 Consumer prices. 12-month rise in per cent



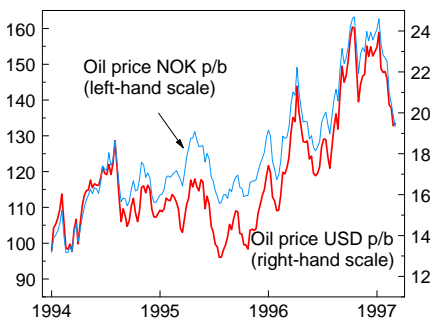
Source: Statistics Norway and OECD

Chart 2.2 Commodity prices, total and metals. 1990=100



Source: the Economist

Chart 2.3 Oil prices in NOK and USD



Source: The Economist

2.1 Consumer prices

The 12-month rise in consumer prices increased from 1.8% at the end of 1996 to 3.0% in January and 3.3% in February. An estimated $\frac{3}{4}$ percentage point of the increase in the year-on-year rate between December and January reflected the effects of indirect tax changes in 1996 and 1997. Whereas lower car taxes contributed to reducing price inflation in 1996, increases in various indirect taxes at the end of last year have contributed to pushing up the rate since January 1997. Increases in electricity prices in the autumn of 1996 and in January 1997 have also contributed to higher price inflation.

Excluding changes in indirect taxes and electricity prices, price inflation was 1.5% in 1996. The year-on-year rate for this measure of inflation has edged up the last two months and stood at 1.9% in February.

Since October 1996 consumer price inflation in Norway has been higher than among our trading partners where inflation has hovered around 1.6% the last six months. In addition to national consumer price indices, EEA countries have also been publishing harmonised price indices since January 1997. According to this price index, price inflation in EU countries was 2.2% in January whereas the rate in Norway was 3.2%.

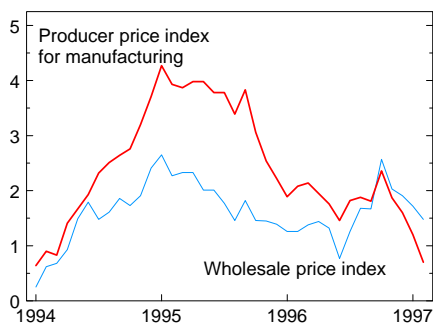
2.2 Commodity prices and import prices

According to the quarterly national accounts, prices for traditional merchandise imports rose by 0.4% between 1995 and 1996. Sluggish cyclical trends in Europe and moderate international price inflation have contributed to containing external price impulses. A slight appreciation of the import-weighted krone exchange rate through 1996 may also have had the same effect. Import prices at the end of 1996 were at the same level as in 1990, entailing that import prices have had a dampening impact on price inflation in Norway for a number of years.

The Economist's all-items index (measured in SDRs) has moved on an upward trend the last four months, bringing the index to a higher level than one year earlier in spite of the sharp fall in prices in the summer of 1996. The recent increase in prices has primarily been fuelled by higher food and metal prices, aluminium in particular. Since the December *Inflation Report*, the all-items index has risen by 18.4%, whereas the average between 1995 and 1996 was a negative 2.2%.

Oil prices rose from USD 19 to 24 p/b in 1996, reflecting continued strong demand growth. So far in 1997 oil prices have edged down to the current level of about USD 19 p/b. It

Chart 2.4 Wholesale and producer price indices. 12-month rise in per cent



Source: Statistics Norway

Table 2.1 National accounts price deflators. Percentage growth from same period one year earlier

	1996			
	Q1	Q2	Q3	Q4
Domestic demand	1.8	2.3	2.1	3.2
Private consumption	0.6	1.4	1.7	2.2
Public consumption	2.8	3.4	4.0	5.5
Mainland gross fixed investment	3.1	1.9	3.2	2.9
Exports, traditional goods	-3.0	-1.0	-2.6	1.2
Imports, traditional goods	0.4	-0.1	0.2	0.9
GDP	2.1	3.1	4.4	6.8
Mainland GDP	1.1	2.0	1.6	3.0

Source: Statistics Norway

would appear that a mild winter and lower-than-projected growth in Europe are the main factors behind the decline in oil prices. Oil prices in NOK stood at NOK 133.5 p/b on 10 March.

2.3 Wholesale and producer prices

Producer and wholesale price trends can provide an indication of future consumer price movements. The year-on-year rise in producer prices in manufacturing industry has edged down in the last two months to 0.7% in February, reflecting lower prices for a number of export products, especially refined petroleum products and industrial chemicals. For goods sold on the domestic market, the rise in prices slowed towards the end of last year, and in the first two months of 1997 was a little more than 2%.

In recent months the rise in wholesale prices has been subdued, with a year-on-year rise of 1.5% in February. The rise in wholesale prices for consumer goods has also been moderate, with a year-on-year rise of 1.7% in both January and February.

2.4 National accounts deflators

The national accounts price deflators indicate a higher rise in prices for private consumption through last year. The rise in prices for services was 2.9% in the fourth quarter of 1996, whereas prices for goods rose by 1.8%. The rise in prices for public consumption also edged up last year, with the annual rise at 5.5% in the fourth quarter. The price deflator for gross output for mainland Norway also showed a higher rise, reflecting a higher rise in domestic prices and a reversal of the earlier fall in prices for traditional merchandise exports.

3.1 Interest and exchange rates

Interest and exchange rate movements affect demand conditions in the economy and can provide information about market expectations concerning future inflation.

Effective 3-month rates in Norway have been 1.4 percentage point lower than the average for 1996. In December and the beginning of January money market rates fell sharply while the krone appreciated. Against this background, and in conjunction with heavy central bank exchange-market interventions during this period, Norges Bank lowered its key rates, first by 0.5 percentage point on 9 January and then by 0.25 percentage point on 10 January. In connection with the reduction on 10 January the central bank announced that it would not intervene in the exchange market to any substantial extent for a period.

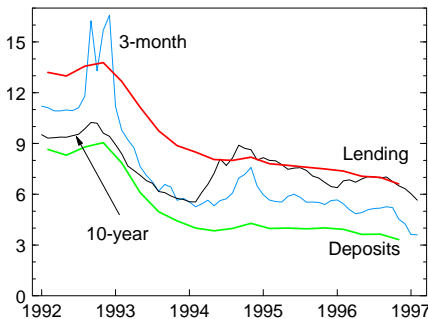
The differential against German 3-month rates has narrowed substantially in recent months, and was 0.2 percentage point on 10 March this year. Since mid-December Norwegian 3-month rates have been lower than corresponding ECU rates, and the differential was -0.8 percentage point on 10 March.

The fall in money market rates in recent months has translated into lower lending and deposit rates in banks. Norges Bank's interest rate statistics for the fourth quarter show that the average lending rate in commercial and savings banks fell by 0.9 percentage point during 1996, with a decline of 0.4 percentage point in the fourth quarter. Most private banks have reduced their lending rates further in the first two months of 1997.

Changes in long-term rates provide an indication as to expectations concerning short-term rates. In addition, long-term investments are often linked to these rates. Long-term rates rose in the period to September last year, but have since moved on a falling trend. From a peak in September 1996, 10-year government bond yields have fallen by a little less than 1.5 percentage points to date. Corresponding European yields have also declined since September last year, but by a smaller margin than Norwegian yields. The yield differential between Norwegian and German 10-year government bonds, which was 0.8 percentage point in mid-September 1996, narrowed to 0.1 percentage point on 10 March. The corresponding yield differential against the theoretical ECU decreased in the same period from 0.3 to -0.3 percentage point.

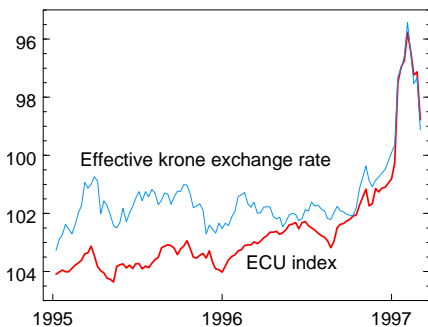
Both the effective krone exchange rate and the ECU index have strengthened since the December report, see Chart 3.2.

Chart 3.1 Interest rate movements in Norway. Banks' deposit and lending rates, 3-month Euro-rate and 10-year government bond yield



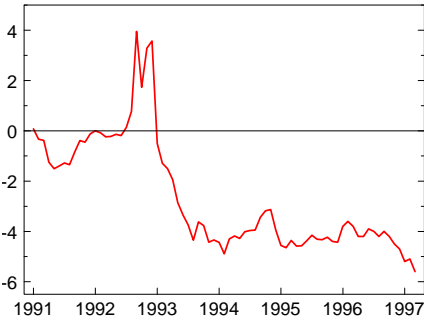
Source: Norges Bank

Chart 3.2 ECU index and manufacturing industry's effective krone exchange rate. Rising curve denotes appreciation



Source: Norges Bank

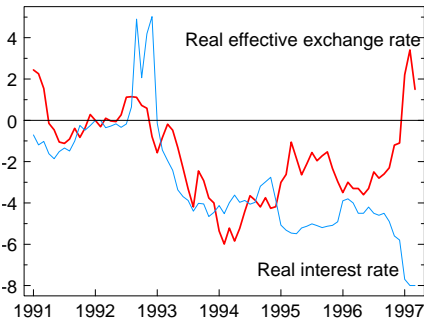
Chart 3.3 *Norges Bank's Monetary Conditions Index (MCI). January 1992=100*



When aggregating, the real interest rate is given a weight of $\frac{3}{4}$ and the real effective exchange rate a weight of $\frac{1}{4}$

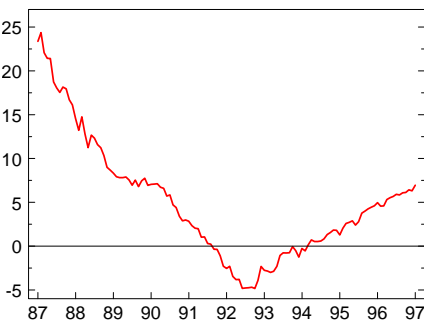
Source: Norges Bank

Chart 3.4 *Components in the MCI. January 1992=0*



Source: Norges Bank

Chart 3.5 *Total domestic credit (C2). 12-month rise in per cent*



Source: Norges Bank

The krone appreciated from mid-December to the beginning of February, reaching a peak for the period on 6 February with an ECU index of 95.4. Later in February and in March the krone weakened and was 98.5 against the ECU index on 10 March. In the 14 days to 10 March the exchange rate has ranged between 96.6-99.3.

Norges Bank's Monetary Conditions Index was constructed to summarise the effects of changes in the real exchange rate and the real interest rate on domestic demand, see Chart 3.3. A fall in the index indicates that interest and exchange rate movements are having a more expansionary effect on the real economy. The index has only shown minor short-term variations in the last three years. The effect of a lower real interest rate, which in isolation has contributed to a slightly more expansionary monetary policy in recent months, has been partly offset by the appreciation of the Norwegian krone in real terms.

Interest and exchange rate developments are discussed in greater detail in a separate survey in this issue of Economic Bulletin: *Financial market developments and Norges Bank's operations*.

3.2 Monetary growth

Changes in the money supply are used in many countries as an indicator of future inflation. Econometric studies of Norwegian data indicate that historically there has not been a close correlation between monetary growth and inflation in Norway. However, a fairly stable relationship between changes in monetary growth and growth in nominal mainland GDP has been observed. Combined with other economic indicators, monetary variables may provide information about economic developments when taking into account that monetary growth rates tend to vary widely.

After remaining fairly stable at about 6% through 1995, the 12-month rise in M2 fluctuated between 2.5 and 8.9% in 1996, and was 6.0% at the end of 1996. A breakdown of monetary growth by source shows that the central government's revenue surplus contributed to a substantial withdrawal of liquidity. The main source of monetary growth is bank lending.

Annualised growth in M2 was 3.9% at the end of January 1997.

3.3 Credit growth

As from January 1997 the credit indicator (C2) comprises private and municipal gross domestic debt in NOK (which was the previous credit indicator) in addition to private and municipal domestic foreign currency debt.

The credit indicator rose by 7.0% in the 12 months to end-January, against 6.2% in the 12 months to December 1996. Year-on-year growth has moved on a steadily rising trend

since October 1992 when it was -4.4% . The real value of household gross domestic debt is now approaching the level prevailing at the beginning of 1990, although the ratio of debt to disposable income is still substantially lower.

A disaggregation of credit by borrower sector shows that enterprises still account for the largest share of credit growth. Based on preliminary estimates, year-on-year growth in enterprises' NOK borrowing was a good 10% at the end of November, whereas the figure for households was slightly more than 5% .

Table 4.1 *Supply and use of goods and services. Percentage growth from previous year*

	1996	1997	1998
Mainland demand	3.9	4	3
Private consumption	4.7	4	3 1/4
Public consumption	1.6	2 1/2	1 3/4
Mainland fixed investment	4.4	5 1/2	4
Accrued oil investment	-1.2	19	4
Exports	8.2	7	5
Of which:			
Oil, gas, and pipeline transport	15.9	10	6 3/4
Traditional goods	9.4	6	5
Imports	2.5	8 1/4	4 3/4
Traditional goods	6.5	7 1/2	4
GDP	4.8	4 1/4	3 1/4
Mainland GDP	3.2	3 1/4	2 3/4

Source: Statistics Norway and Norges Bank

4.1 Main features

Preliminary national accounts figures show that mainland GDP expanded by 3.2% between 1995 and 1996. Excluding the decline in electricity production, growth was 3.7%. Private consumption rose by almost 5% and traditional merchandise exports by nearly 10%. Combined with employment growth of 55 000, the sharpest real wage growth in 10 years and a record-high current account surplus, last year constituted a new peak in this upturn which has continued since the beginning of 1993.

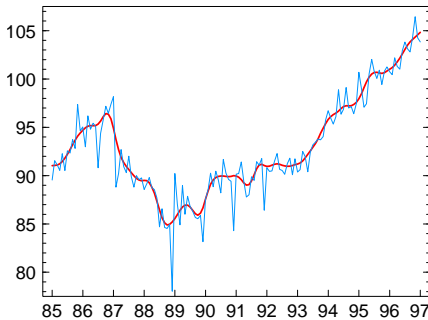
As in the last *Inflation Report*, growth is projected to moderate this year and next, although it appears that the cyclical boom will continue. The technical assumptions concerning interest and exchange rates in this report, however, entail lower interest rates and a stronger exchange rate than assumed in December.

The fall in interest rates may particularly stimulate housing investment in addition to other investment and interest-sensitive consumption, ie consumer durables. The fall in interest rates may also provide further impetus to consumption in the period ahead as a result of the increase in resale home prices and other asset prices. The estimate for consumption growth has therefore been adjusted upwards to 4% in 1997. As a result of the Storting's deliberations on the Final Budget Bill, public consumption will also be higher in 1997 than assumed earlier. Moreover, the estimates for petroleum investment have been adjusted upwards by a substantial margin, which may generate strong growth impulses in the mainland economy. A stronger-than-projected krone exchange rate may, however, contribute to slightly lower export growth and higher import growth.

Mainland GDP growth is now projected at 3 1/4% this year, a quarter percentage point higher than in the December report. Employment growth is projected at 2% this year, and LFS unemployment is estimated to decline by about half a percentage point to 4 1/2%. The number of registered unemployed is put at 3 3/4%.

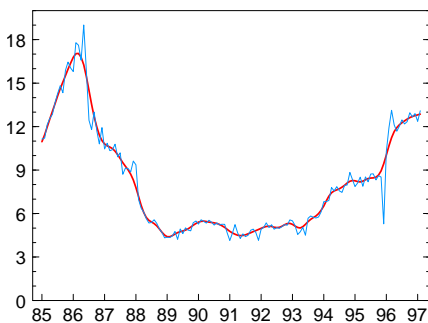
Growth is set to continue in 1998. Mainland GDP growth is projected at 2 3/4%, and consumption growth may reach 3 1/4% as a result of the sharp growth in real income. Employment growth is also likely to continue, and LFS unemployment may edge down to 4%. The number of registered unemployed is estimated at a little less than 3 1/2% next year.

Chart 4.1 Retail sales index. Trend and seasonally adjusted. Index 1995=100



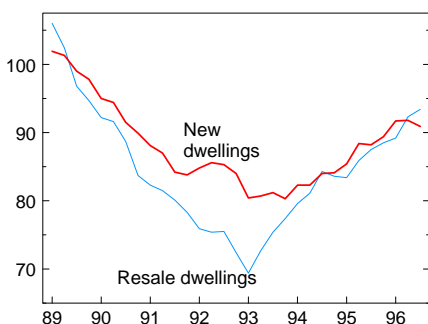
Source: Statistics Norway

Chart 4.2 New car registrations. Trend and seasonally adjusted. In thousands



Source: Statistics Norway

Chart 4.3 Real prices of dwellings. Index 1989=100



Source: Statistics Norway and ECON

4.2 Households

Household consumption expanded by almost 5% between 1995 and 1996. Consumption growth, which has been brisk for several years, continued to be the main driving force behind the growth in domestic demand. Consumption of goods has shown a particularly sharp rise, expanding by a good 6% over the last year. The sharp rise in car purchases accounts for more than half of the growth in the consumption of goods and more than 1½ percentage points of total consumption growth in 1996. For services, growth picked up in 1996, but is still expanding at a slower pace than the consumption of goods.

Consumption growth reflects the sharp rise in household income in recent years, which has been accompanied by a substantial improvement in household wealth. The increase in household financial wealth is mainly ascribable to higher house prices, positive investments in financial assets and a rise in share prices. In addition, the decline in lending rates has reduced the cost of debt-financed consumption.

The growth in real household income is projected to continue at a brisk pace, albeit at a slightly slower rate than in 1996. The decline in interest rates is expected to result in a further rise in house prices and other asset prices in the period ahead. In 1996, prices for existing homes rose by a little more than 10% in nominal terms. Demand for resale homes is now robust, and it appears that house prices will rise further this year. Resale home prices in nominal terms are projected to rise by more than 10% this year and by a further margin in 1998.

A further impetus to consumption growth will be generated in the period ahead by the fall in interest rates and the rise in resale home prices and other asset prices. It appears that household financial savings declined towards the end of last year, and credit growth has been expanding over a longer period. As we have witnessed in earlier years, the fall in interest rates may also stimulate interest-sensitive components of consumption, ie consumer durables.

In the December *Inflation Report*, consumption growth was projected at 3½% in 1997. The growth estimate for 1997 has been adjusted upwards to 4% based on the developments described above. Consumption growth is expected to slow to 3¼% in 1998. The household saving ratio fell by 1.3 percentage points, to 5.7%, between 1995 and 1996. The saving ratio is projected to continue to fall in 1997 and 1998 by 1 and ½ percentage point respectively, entailing that the household saving ratio may drift down to 4% in 1998.

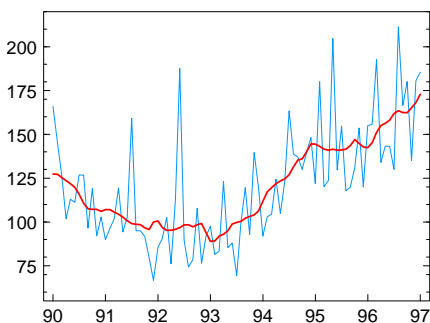
Housing investment is projected to rise by 8% in both 1997 and 1998.

Chart 4.4 *Housing starts and housing investment. Index 1993=100*



Source: Statistics Norway

Chart 4.5 *Commercial building starts. Index 1993=100. 1000 sq.m. Seasonally adjusted and trend. Per month*



Source: Statistics Norway

4.3 Fixed investment

Preliminary national accounts figures show that mainland fixed investment generated substantially weaker demand impulses in 1996 than in the previous two years. Public sector investment also rose by a smaller margin than assumed in the Final Budget Bill, which may be ascribable to a shift from 1996 to 1997 of some local government investment in connection with the primary school reform. Manufacturing investment continued to show solid growth, and activity linked to the construction of a new main airport Gardermoen also contributed to a rise of nearly 7% in mainland business fixed investment last year, compared with a growth of around 20% in 1995 and 1994.

Investment is at a high level, and as a share of mainland GDP investment in 1996 was at about the same level recorded in the previous peak year 1987. Conditions seem conducive to a continued high level of investment, with high capacity utilisation, expectations of continued low interest rates and solid earnings. The investment intentions survey for the first quarter points to appreciably lower investment growth in the manufacturing sector this year compared with last year. All in all, mainland business fixed investment is projected to rise by 5% this year and a little less next year, which implies a high level of investment in both 1997 and 1998.

Petroleum investment has declined over the past 3 years and has thereby had a dampening impact on the upturn. Towards the end of 1996 petroleum investment showed a sharp rise, however, and Statistics Norway's investment intentions survey points to a pronounced increase in petroleum investment this year. Petroleum investment is projected to grow by almost 20% this year. The figure in the December *Inflation Report* was substantially lower, and the higher estimate entails that petroleum investment will contribute to further growth in the economy in the period ahead.

4.4 Fiscal policy

Our estimates for public sector demand are based on the approved government budget for 1997. In the Final Budget Bill for 1997 the Government proposed an increase in the level of direct and indirect taxes. Underlying budget expenditure was expected to rise by 1/4% between 1996 and 1997, and the budget's tightening effect was estimated at 1% of mainland GDP, measured by the non-oil, cyclically-adjusted budget surplus net of interest payments.

The final deliberations on the 1997 budget resulted in an increase in total budget expenditure of about NOK 1.8bn in relation to the proposed expenditure level in the Final Budget Bill. In addition, budget revenues were reduced as the majority in the Storting did not accept a reduction in the municipal tax rate for personal taxpayers accompanied by an in-

crease in contributions to the Tax Equalisation Fund, as proposed by the Government. Combined with higher block transfers to municipalities, this entails an increase in local government revenues of a good NOK 3bn this year compared with the Government's proposal. The approved budget for 1997 is not quite as tight as the Government's fiscal programme as presented in the Final Budget Bill.

As a result, local government consumption is expected to be higher than assumed by the Government in the Final Budget Bill. Our estimate for general government consumption in 1997 has therefore been revised upwards by 1½ percentage points compared with the December report. In line with the projections in December, the national accounts figures show that public sector investment growth was lower last year than estimated in the Final Budget Bill. It would appear that some local government investment in connection with the primary school reform has been shifted from 1996 to 1997. As in the December report, the estimate for investment growth in the public sector is 3% this year, which is higher than the estimate in the Final Budget Bill. The estimate for public expenditure on goods and services in 1997 has been adjusted upwards from 1.2% in the December report to 2.5%.

Table 4.2 *Projected GDP. Percentage growth from previous year*

	1996	1997	1998
USA	2.4	2 1/2	2 1/4
Japan	3.6	1 1/2	2 1/2
Germany	1.3	2 1/4	2 1/2
France	1.3	1 3/4	2
UK	2.3	3	3
Sweden	1.1	2	2
Finland	3.2	4	3 1/2
Denmark	2.2	3	3
Norway's trading partners ¹⁾	1.9	2 1/2	2 1/2

1) Weighted by export weights.

Source: OECD, Consensus forecast, Norges Bank

4.5 Foreign trade

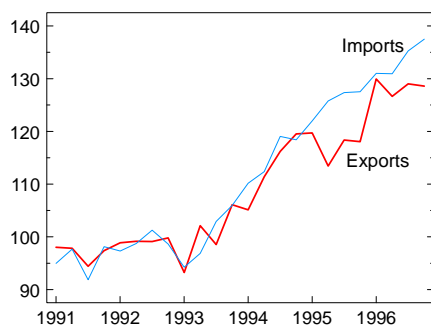
Traditional merchandise exports expanded by 9.5% between 1995 and 1996. Growth was particularly strong in the first half of last year. The sharpest growth was recorded for exports of engineering products and goods produced in primary industries.

GDP growth among Norway's main trading partners was moderate last year, with preliminary figures indicating a growth of 1.9%. Export growth in 1996 was therefore much higher than market growth among our trading partners. This partly reflects the increase in exports to new markets in Europe and Asia. For example, traditional merchandise exports to Asian countries rose by over 23% last year. Exports to the US and eastern Europe also expanded. In these countries market growth was higher than the average for Norway's trading partners.

In the US economy, the solid growth recorded in recent years is expected to continue. In Japan and many European countries, the planned fiscal consolidation is expected to restrain economic growth, whereas lower interest rates and growth in the international economy will have the opposite effect. We expect a gradual pick-up in growth in these countries. GDP growth among trading partners is projected to rise to an average 2½% in both 1997 and 1998.

Export growth is expected to be buoyed by solid economic growth in the US, eastern Europe and Asia in the period ahead. The moderate growth in continental Europe will have

Chart 4.6 *Traditional merchandise exports and imports. Index 1993=100*



Source: Statistics Norway

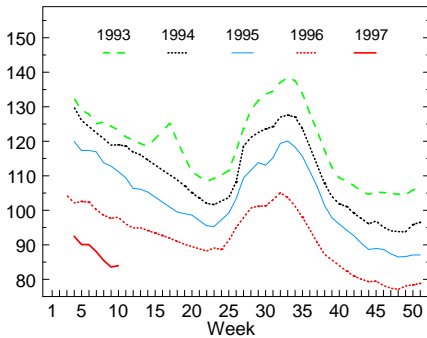
a dampening effect on export growth. Our assumption of an appreciation of the krone exchange rate also points to lower export growth in 1997, with traditional merchandise exports projected to rise by 6% in 1997 and an estimated 5% in 1998.

Prices for a number of important traditional export goods fell through 1996 after rising sharply the previous year. The decline in prices was steepest for metals, pulp and paper products, industrial chemicals and fish. Export prices for traditional goods fell by a total of 1.3% between 1995 and 1996. Prices for traditional merchandise exports are expected to decline by about 1/2% in 1997 followed by a small increase in 1998.

Traditional merchandise imports rose by 6.5% last year, and are expected to expand by 7 1/2% in 1997 and 4% in 1998. The slower import growth between 1997 and 1998 reflects lower domestic demand growth and reduced growth in petroleum investment.

Prices for traditional merchandise imports rose by 0.4% in 1996, according to the quarterly national accounts. These prices are expected to fall by about 1% in 1997 compared with 1996. The assumption of an appreciation of the krone is the main factor behind the projected drop in import prices this year. Import prices are projected to remain unchanged in 1998.

Chart 5.1 Registered unemployment. Weekly figures. 1000 persons



Source: Directorate of Labour

5.1 Employment and unemployment

Employment growth was robust last year. According to preliminary national accounts figures, employment rose by 55 000, or 2.6% between 1995 and 1996. The supply of labour also rose by a much larger margin than demographic trends would indicate, resulting in a decline of only 0.5 percentage point in unemployment. According to Statistics Norway's Labour Force Survey (LFS), the unemployment rate was an average 4.9% in 1996. The figures should be interpreted with some caution as the LFS was revised last year. For purposes of comparability, the figures must be adjusted for breaks in the LFS. Adjusting for the revision, Statistics Norway's estimate for unemployment in 1995 was 5.4%, 0.5 percentage point higher than the level published earlier.

Figures from the Directorate of Labour indicate a steady decline in unemployment through last year, continuing in the first two months of 1997. The number of registered unemployed was 3.7% at the end of February adjusted for normal seasonal variations. This is 0.6 percentage point below the level one year earlier. Unemployment has not been this low since 1989. Employment growth is projected to continue at a brisk pace both this year and next, accompanied by a further decline in unemployment in the same two years. Employment growth may reach 2% this year and 1¹/₄% next year. The projected growth in the labour force implies, however, that LFS unemployment will only show a moderate decline, to about 4¹/₂% this year. In 1998, unemployment may fall to 4%. Based on unadjusted LFS figures, this corresponds to 4 and 3¹/₂% respectively. The number of registered unemployed is estimated at about 3³/₄% this year and about 3¹/₂% in 1998.

5.2 Wages

The national accounts show an overall growth in wages per person-year (including overtime) of 4.4% between 1995 and 1996. The TRC estimated average annual wage growth at 4¹/₄%, which is consistent with Norges Bank's projection in the December *Inflation Report*.

Some of the pay increases awarded in connection with the wage settlement last year became effective relatively late in the year. This means that the wage level at the beginning of 1997 was already substantially higher than the average for last year. Even if no wage increases are awarded this year, average wages in 1997 will be about 2% higher than last year, according to the TRC.

The social partners have signalled continued support for the wage moderation approach. In the private sector, unions have demanded real wage increases for low and middle in-

come groups, but there are indications that some groups in the public sector will demand relatively high wage increases. In the Final Budget Bill, the Government puts wage growth at 3¹/₂% this year.

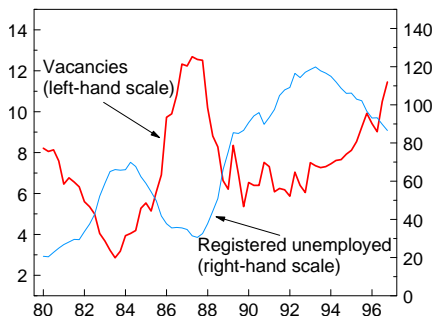
In the December report annual wage growth was estimated at about 4³/₄% between 1996 and 1997. This was based on previous experience relating to wage formation during a cyclical upturn as embodied in Norges Bank's macroeconomic model RIMINI. If the krone exchange rate remains at the current level, this will result in slightly lower profitability in export enterprises than previously assumed, which may reduce wage growth somewhat. On the other hand, our inflation projection has been adjusted upwards compared with the December report. However, this is not expected to have a noteworthy effect on wage growth. On this basis, we have lowered our estimate for overall annual wage growth to 4¹/₂% this year.

A continued decline in unemployment both in 1996 and 1997 implies rising labour market pressures during the projection period. Some sectors are already facing shortages of skilled labour. There is a shortage of labour in the public health and care sector, and according to Statistics Norway's general business tendency survey nearly 10% of manufacturing enterprises report that a shortage of qualified labour is limiting or will limit production in the near future. This share has been close to zero in recent years. This points to growing mismatches in the labour market. A further indication of mismatches can be found in the ratio of number of vacancies to number unemployed compared with the previous cyclical boom in the 1980s. Chart 5.2 shows that the number of registered unemployed is still almost three times as high as in the mid-1980s, while the number of vacancies is nearing the peak recorded in 1987. This indicates that a declining share of the jobs available match the qualifications of the unemployed. The shortage of labour may therefore develop into a more serious problem than the level of unemployment alone would indicate, and further brisk growth in demand may more quickly translate into higher price and wage inflation than so far in the 1990s. Based on the historical information embodied in RIMINI, wage growth is projected at 5% in 1998.

If wage growth is not matched by corresponding productivity gains, this may influence price-setting by enterprises and thereby result in higher price pressures in the economy. Mainland productivity growth is projected at about 1¹/₂% both this year and next. Based on our estimates for wage growth, this will result in an annual rise in unit labour costs in mainland Norway of around 3% the next two years.

Our wage projections entail that wage growth in Norway will be ³/₄ percentage point higher than projected wage growth among our trading partners in 1997, and 1¹/₄ percentage points higher in 1998.

Chart 5.2 *Number of registered unemployed and vacancies. 1000 persons*



Source: Directorate of Labour

MAIN MACROECONOMIC AGGREGATES

Percentage change from previous year, if not otherwise stated

	Accounts		
	1996	1997	1998
Real economy			
Private consumption	4.7	4	3 ¹ / ₄
Public consumption	1.6	2 ¹ / ₂	1 ³ / ₄
Total gross investment	3.1	8 ¹ / ₂	3 ³ / ₄
Accrued oil investment	-1.2	19	4
Mainland Norway	4.4	5 ¹ / ₂	4
Enterprises	6.7	5 ³ / ₄	5
Dwellings	-3.4	8	8
General government	4.9	2 ³ / ₄	-3 ¹ / ₄
Mainland demand	3.9	4	3
Exports	8.2	7	5
Oil, gas and pipeline transport	15.9	10	6 ³ / ₄
Traditional goods	9.4	6	5
Imports	2.5	8 ¹ / ₄	4 ³ / ₄
Traditional goods	6.5	7 ¹ / ₂	4
GDP	4.8	4 ¹ / ₄	3 ¹ / ₄
Mainland Norway	3.2	3 ¹ / ₄	2 ³ / ₄
Labour market			
Employment	2.6	2	1 ¹ / ₄
Labour force, LFS	2.2	1 ¹ / ₂	3 ³ / ₄
Unemployment, LFS	4.9	4 ¹ / ₂	4
Prices and wages			
Consumer prices	1.3	2 ³ / ₄	2
Annual wages	4 ¹ / ₄	4 ¹ / ₂	5
Import prices, traditional goods	0.4	-1	0
Export prices, traditional goods	-1.3	-1 ¹ / ₂	1 ¹ / ₄
Crude oil prices, NOK (level)	131	129	131
External account			
Trade surplus, NOKbn (level)	97.2	102	106
Current account surplus, NOKbn (level)	75.4	76	81
Current account surplus, % of GDP	7.5	7	7
Memorandum item			
Household saving ratio	5.8	4 ³ / ₄	4 ¹ / ₄