

Review of the Swedish Convergence Programme

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1 Summary

This annex to the 1998 Spring Budget Bill reports the results of the sixth and final review of the Convergence Programme that the Government presented in June 1995.

The review shows that economic growth since 1994 has been approximately what was forecast in the Programme, namely about 2.5 per cent annually. The contribution of net exports to growth has been larger than anticipated, whereas the contribution of domestic demand has been smaller. Development of inflation and interest rates has been more favourable than expected. During the past year, inflation has been about one per cent and interest rates are 5 percentage points lower than they were when the Convergence Programme was first presented.

Employment developed weakly in 1996 and 1997. Consequently, unemployment is higher than was anticipated in the Programme. During the past year, however, employment has increased and unemployment is now falling significantly. It is expected to amount to 6.5 per cent of the labour force at the end of 1998, which is a reduction from about 8 per cent in June 1995.

The ambitious goal of consolidation of the public finances that was set out in the Convergence Programme has been reached. In 1997 the deficit in the general government balance was 0.8 per cent of GDP, i measured in accordance with the ESA-rules. This year the public sector is expected to show a financial surplus. The general government consolidated gross debt is falling relative to GDP for the fourth year in a row.

The calculation for the coming years shows that public finances are continuing to strengthen and that the objective of a surplus corresponding to 2 per cent of GDP as an average over the business cycle established by the Government will be achieved with some margin.

The calculation is based on the assumptions that annual economic growth in the OECD area will be around 2.5 per cent and that the rate of increase in Sweden's wages will be limited to 3 per cent annually. Under these conditions GDP may grow by almost 3 per cent annually up to the year 2001. Growth will be driven by stronger domestic demand to an increasing extent, inter alia, owing to growing household disposable incomes.

Economic policy is directed at reducing unemployment to 4 per cent in 2000. Central in this effort is an expansion of the number of study places in order to increase competence and the adaptability in the labour market.

2 The Swedish Convergence Programme

2.1 Background

This annex to the 1998 Spring Budget Bill reports the results of the sixth and final review of the Convergence Programme that the Government of Sweden presented in June 1995. The programme had its origins both in the serious imbalances that characterised the Swedish economy at that time and in the process to form an economic and monetary union and a single currency that has been under way in the EU for many years.

According to the EC Treaty, the Member States of the EU were required, if necessary, to adopt convergence programmes during the first stage of EMU. These programmes were to be the basis for assessing the progress that had been made on convergence in economic development, especially as concerns price stability and sound public finances, which are necessary in order to establish a single currency. During the second stage of EMU, which extends from January 1, 1994 to December 31, 1998, the Convergence Programme is a political commitment.

As a new EU member, Sweden presented its first Convergence Programme in June 1995. The programme was put forward by the Government. A large majority of the Riksdag supported its provisions. The Convergence Programme states that the Government shall conduct semi-annual reviews of the programme. Earlier reviews were presented on the following occasions:

- In November 1995 in the Government's bill, *A Policy for Work, Welfare and Growth* (Government Bill 1995/96:25, annex 2);
- In April 1996 in the Spring Budget Bill (Government Bill 1995/96:150, annex 2);
- In September 1996 in the Budget Bill (Government Bill 1996/97:1, annex 3);
- In April 1997 in the Spring Budget Bill (Government Bill 1996/97:150, annex 2); and
- In September 1997 in the Budget Bill (Government Bill 1997/98:1, annex 3).

The Convergence Programme states that the Government and the Riksdag would later take a position on Swedish participation in the third stage of EMU and that that position would be made in the light of further developments and in accordance with the Treaty. However the convergence criteria defined in the EC Treaty were said to express a sound economic policy and therefore should form the basis of economic policy, irrespective of the position taken on Sweden's participation in the monetary union.

In December 1997 the Riksdag, in connection with the Government Bill, *Sweden and Economic*

and Monetary Union (Government Bill 1997/98:25), decided that Sweden should not introduce the euro, when the third stage of EMU begins. With this decision it has been clear that Sweden is not going to participate in the monetary union from the start.

On July 1, 1998 the surveillance provisions in the Stability and Growth Pact is expected to come into force. According to the Council Regulation on strengthening the surveillance of budgetary positions and the surveillance and co-ordination of economic policies (EC 1466/97), those countries that have not adopted the single currency will present convergence programmes. The countries that join the monetary union will present stability programmes. The new stability- and convergence programmes will, in part, follow different rules than those applying under the second stage of EMU. A central feature of the new programmes is the requirement for a medium-term target of a budget that is near balance or has a surplus. In the new programmes, a more comprehensive surveillance procedure at the EU level with respect to compliance with targets and observance of the programme provisions is to apply. The Government intends to present a convergence programme in compliance with the new rules later.

2.2 The Goals of the Convergence Programme and the Direction of Economic Policy

The Convergence Programme states that the chief objectives of economic policy are strong growth, full employment and stable prices. In order to achieve these objectives the public finances must first be brought under control. Furthermore growth is to be effected in ways that do not lead to further deterioration of nature and the environment and do not increase the environmental debt.

The convergence criteria include the requirements that the rate of inflation and interest rates should not deviate too much from those in Member States with the lowest inflation rates. These requirements are well in line with the inflation objective established by Sveriges Riksbank (the central bank of Sweden) that the rate of increase in prices will amount to 2 per cent per year, with a tolerance interval of one percentage point on each side. In order to strengthen confidence in a policy aimed at stable prices, increased independence for the Riksbank was announced in the Convergence Programme. In addition a stable exchange rate is required. The Convergence Programme states as an objective the strengthening of the krona in relation to the rate that prevailed in June 1995.

Except under special circumstances, the public finances must not show a deficit larger than 3 per cent of GDP. The general government gross debt should

not exceed 60 per cent of GDP, or if it does, it must be declining at a satisfactory rate. At the time that the convergence programme was presented, there was a fundamental imbalance in the public finances, with a deficit of more than 10 per cent of GDP. Fiscal policy was aimed primarily at consolidating the public finances. Three objectives of budget policy were defined and established:

- The central government debt measured as a percentage of GDP would be stabilised by 1996, at the latest.
- During 1997 the deficit in the general government balance would not exceed 3 per cent of GDP; that is, Sweden would achieve the reference value for the convergence criteria on stable public finances.
- In 1998 the general government finances will be in balance, that is, revenue will match expenditure.

According to the Convergence Programme, budget policy would also aim at limiting the size of public expenditure, inter alia, with the purpose of reducing the vulnerability of public finances to swings in the business cycle.

In conjunction with the Convergence Programme, a far-reaching programme for consolidating the public finances was announced. The programme comprised specific measures that were estimated to strengthen the public finances on a sustainable basis by SEK 118 billion, the equivalent of 7.5 per cent of GDP. In 1996 the Consolidation Programme was expanded to include additional measures so that it totalled SEK 126 billion or the equivalent of 8 per cent of GDP. That amount referred to the direct effects of revenue enhancement and expenditure reduction, estimated net, taking into account, inter alia, that reduced transfers would lead to lower tax revenue. However the indirect effects, for example, of lower interest rates, were not included. In 1995 the Riksdag passed a decision in principle on the entire Consolidation Programme and the areas in which savings should be made were specified. At that time it was made clear that, to the extent that individual proposals were not implemented or yielded less than estimated, those measures would be replaced by others in order to achieve the intended savings.

The Consolidation Programme comprised a great many measures divided about equally between revenue enhancement and expenditure reduction.

The strengthening of public finances that followed the measures in the Consolidation Programme was largely secured in the first years of the programme: the effects of two thirds of the measures in the programme came in 1995 and 1996.

It was also announced in the Convergence Programme that there would be sales of state assets, with the aim of reducing the general government

gross debt. Those sales would include the assets that the State had taken over in connection with the banking crisis and its holdings of shares in Nordbanken. The sales were estimated to yield revenues of about SEK 50 billion.

The Convergence Programme contained an assessment of economic developments to the year 2000. According to that assessment, after the deep recession at the beginning of the 1990s, the recovery that began in 1994 would continue. The substantial imbalances in the Swedish economy – the public sector deficit, unemployment, expectations of high inflation and high interest rates – would gradually be reduced. According to that forecast, however, the objective of a deficit of less than 3 per cent of GDP in 1997 and a balance in general government finances in 1998 would not be achieved unless additional savings measures were taken.

3 Developments in the Economy 1994-1998

3.1 General Economic Developments

Economic developments since 1994 have broadly followed the path taken in the Convergence Programme. Financial developments – inflation, interest rates and the exchange rate – have been more favourable, whereas the expected improvement in labour market conditions has been delayed.

With the estimate that now can be made for 1998, GDP has grown by 2 ½ per cent per year in the four-year period from 1994 to 1998, in line with the forecast in June 1995 (see table 3.1). However the course of events has been somewhat different, primarily because the weakening trend in the business cycle that took place in Europe in 1996 was not foreseen.

In line with the Convergence Programme, growth has principally been driven by foreign trade and business investment. The relative cost position of the industrial sector improved by about 20 per cent after the depreciation of the krona in 1992, which made possible both reduced relative prices and improved profitability. However export growth during the past four years has been far stronger than estimated. Swedish export industries have increased their market share to a greater extent than should be expected, considering relative price developments. One explanation is that the sectoral composition of Swedish exports has been favourable relative to the growth in world markets. Imports have also grown quickly, but here the growth has been in line with import weighted demand and a trend to a rising share of imports. All in all foreign trade has made a considerably larger contribution to economic growth than was foreseen in the Convergence Programme. GDP

growth between 1994 and 1998 stood at 10 per cent and increased net exports accounted for almost half of that.

In contrast, investment activity has been weaker than estimated. This can partly be explained by weak developments in public investment and residential construction, inter alia, as a consequence of the budget consolidation. Investment in housing this year is estimated to be 40 per cent lower than in 1994, despite some increase over 1997, while public investment has been reduced by more than 15 per cent in the same period.

Improved profitability, lower interest rates and a gradually rising utilisation of capacity have caused a rise in business investment. Since 1994 this investment has grown by 44 per cent, which, however, is not as strong as expected in the Convergence Programme. Business investment measured as a share of GDP is estimated to be back at the same level this year as at the end of the 1980s, before the sharp drop in connection with the recession of 1991 to 1993. Investment in machinery has risen most, whereas residential investment has shown a considerably more modest increase. This may be interpreted to mean that capital formation is largely aimed at more labour saving production.

Private consumption has grown weakly for a long period, but has gradually increased its contribution to growth. The past year was the first in which the volume of consumption exceeded the level at the beginning of the 1990s. Despite these developments, the growth in consumption has been somewhat stronger than estimated in the Convergence Programme. It is principally pent-up demand for durables by households that is now being met.

TABLE 3.1 DEMAND AND OUTPUT

	SEK BILLION 1997	PERCENTAGE CHANGE IN VOLUME					
		1995	1996	1997	1998	1994-1998 ¹	1994-1998 ^{1,2}
Private consumption	922.9	0.8	1.3	2.0	2.5	1.6	1.2
Public consumption	449.3	-0.9	-0.2	-2.1	1.2	-0.5	-0.8
Central government	134.2	-2.1	-0.6	-5.0	2.5	-1.3	-0.8
Local government	315.1	-0.4	0.0	-0.7	0.8	-0.1	-0.8
Gross fixed investment	237.9	12.4	3.7	-4.8	7.2	4.4	8.8
Business sector	183.6	27.7	4.7	-0.1	7.8	9.6	11.9
Residential	23.8	-23.5	13.1	-25.7	8.8	-8.6	2.5
Authorities	30.5	-5.7	-8.0	-9.4	2.8	-5.0	2.6
Change in stocks	6.8	0.5	-1.1	0.7	0.1	0.1	0.1
Exports	761.4	12.9	6.1	12.8	6.3	9.5	7.6
Imports	639.5	10.2	3.7	11.7	6.9	8.1	6.7
GDP	1738.9	3.9	1.3	1.8	3.1	2.5	2.6

1. Average for the four year period 1994-1998

2. According to the Convergence Programme

TABLE 3.2 HOUSEHOLD INCOME

	SEK BILLION	PERCENTAGE CHANGE 1991 PRICES					
		1997	1995	1996	1997	1998	1994-1998 ¹
Wage bill	756.6	2.0	4.9	3.1	3.0	3.2	2.7
Hourly wages		0.6	5.3	3.6	1.8	2.8	1.2
Hours worked		2.0	0.1	-1.1	1.0	0.5	1.5
- number of employed		1.5	-0.6	-1.0	1.0	0.2	1.8
Public government transfers	387.9	-2.7	-2.1	-0.6	1.8	-0.9	-2.3
Net other income	191.4	6.1	-2.7	-5.9	3.3	0.1	6.6
Taxes	405.7	7.0	7.8	6.9	3.1	6.2	5.5
Disposable income	930.2	-1.0	-0.7	-1.7	2.5	-0.3	1.4
Net savings ratio, per cent		6.3	4.4	0.8	0.9	3.1	5.6

1. Average for the four year period 1994-1998

2. According to the Convergence Programme

The growing consumer demand has been financed to a much greater extent than expected by a reduction in savings. This year household real disposable incomes are estimated to be 1 per cent lower than in 1994. The forecast in the Convergence Programme predicted an increase of 5 per cent during the same period. The savings ratio has fallen from 8 per cent in 1994 and is estimated to amount to just over 1 per cent of disposable income this year. In the Convergence Programme household savings were assumed to level out at a long-term rate of around 4 per cent. As is clear from Table 3.2, the Consolidation Programme, in the form of drawdowns of transfers and increased taxes, has contributed negatively to the growth of household incomes by approximately the same proportions mentioned in the Convergence Programme. A weaker growth in employment has been made up for by the 12 per cent rise in real hourly wages between 1994 and 1998, compared with the estimate of 5 per cent. Therefore earned income has been able to increase at the rate that was anticipated in 1995. Instead it is the negative growth of other household income, inter alia, self-employed income and income from capital, which explains why disposable incomes have grown so weakly.

Labour market conditions have been considerably weaker than expected. The recovery in employment that took place in 1994 and 1995 faltered in 1996 and employment first began to grow again in the second half of 1997. The number of employed this year is estimated to be 36,000 higher or 0.9 per cent more than in 1994, while it was anticipated in the Convergence Programme that employment in this period would increase by 7 per cent or 290,000 persons. A rise in average hours worked has been able to satisfy the need for labour to some extent. Measured in hours worked, employment has thus been somewhat more expansive. Another explanation for the

slow growth in employment is that productivity – production per hour – has risen more quickly than expected. In the 1980s productivity rose about 1 per cent per year. In the 1990s the annual growth in productivity, both during the recession and during the recovery in the past four years, has been around 2 per cent. Some reasons for this slow growth in employment were probably the relatively rapid increases in real hourly wages and the fact that production growth took place mainly in less labour intensive parts of the economy.

The budget consolidation has led to a reduction in employment in the public sector of more than 65,000 persons since 1994. Private-sector employment has been more expansive and increased by close to 100 000 persons.

The development of employment meant that the level of unemployment did not fall as estimated, but remained at around 8 per cent until the middle of 1997. However in the past year, open unemployment has declined sharply. This year it is estimated to be 6.7 per cent, which is one percentage point higher than assumed in the Convergence Programme.

When the Convergence Programme was presented in June 1995, considerable doubt prevailed as to the future rate of inflation in Sweden. High interest rates reflected continuing expectations of high inflation and insufficient confidence in the Swedish economy. However as presented in Diagram 3.2 the rate of inflation in Sweden has now been entrenched at a low level. In 1996 and 1997 consumer prices rose at an annual rate of only 1 per cent and this year prices are estimated to rise 0,6 per cent. The budget consolidation has contributed to raising the price level through such measures as reduced residential subsidies and increased taxes on energy. Adjusted for these effects, the picture of low inflation becomes even clearer.

TABLE 3.3 KEY ECONOMIC INDICATORS

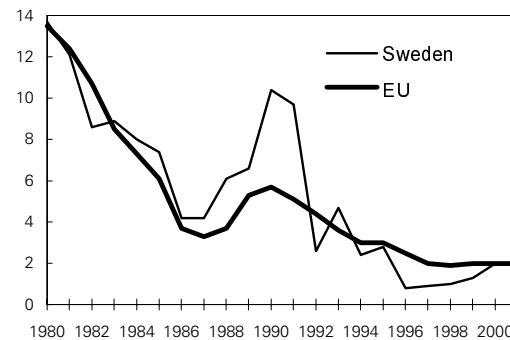
	1995	1996	1997	1998	1994-1998 ¹	1994-1998 ^{1,2}
<i>Annual percentage change</i>						
CPI, annual average	2.8	0.8	0.9	0.9	1.4	2.8
HICP, annual average		0.8	1.8	1.5		
LEVEL 1998						
<i>Level in per cent</i>						
Unemployment, per cent of labour force	7.7	8.1	8.0	6.7		5.6
Labour market programmes, per cent of labour force	4.4	4.5	4.3	4.2		4.0
Current account balance	2.2	2.6	2.7	3.5		4.0
Swedish five year bond rates	9.9	7.3	5.8	5.3		8.5
German five year bond rates	6.0	5.0	4.7	4.8		7.0
ECU index	126.1	115.1	117.2	117.4		118.0

1. Average for the four year period 1994-1998
 2. According to the Convergence Programme

Strong confidence that monetary policy will be able to achieve the price stability objective, combined with a successful budget consolidation, has resulted in a sharp drop in interest rates. The interest rate on five-year government bonds was at the beginning of April 4,9 per cent, which is five percentage points lower than when the Convergence Programme was presented and 3,5 percentage points under the level forecast for 1998. The decline is to some extent due to falling international interest rates, but the interest rate differential against other countries has shrunk markedly. The interest rate differential for five-year government bonds relative to Germany was 4 percentage points in June 1995. Thereafter it has gradually declined and at present it is only 0,4 percentage point. This differential is considerably less than what was expected when the Convergence Programme was presented.

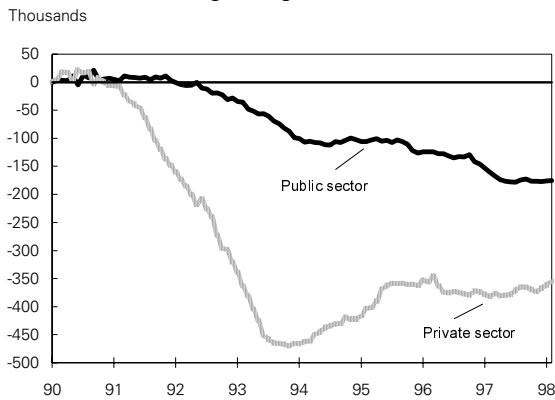
In the Convergence Programme the Swedish krona was judged to be undervalued and therefore should strengthen over the coming years. The krona has appreciated 7 per cent, compared with June 1995.

DIAGRAM 3.2
CPI development in Sweden and the EU
 Annual percentage change



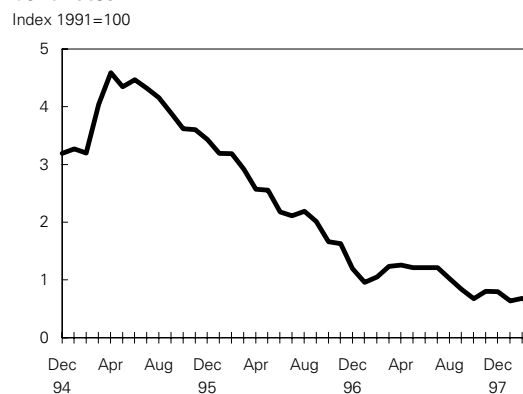
Sources: OECD, Statistics Sweden and Ministry of Finance

DIAGRAM 3.1
Change in private and public employment
 Three months moving average



Source: Statistics Sweden

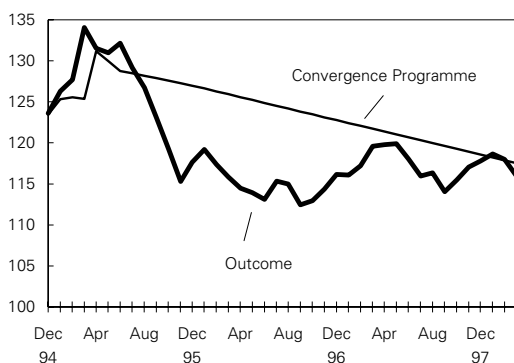
DIAGRAM 3.3
Interest rate differential relative to Germany, five year bond rates



Source: Hanson & Partners

DIAGRAM 3.4
ECU index

Index 1991=100



Sources: The Riksbank and the Ministry of Finance

3.2 The public finances

The objectives for public finances established in the Convergence Programme signified a very far-reaching consolidation. It can now be confirmed that the three objectives specified have been achieved:

- At the end of 1996 the central government debt corresponded to 83.6 per cent of GDP, a decline of 0.4 percentage points from the beginning of the year. Thereafter the debt ratio has continued to decline and is estimated to be 78.6 per cent of GDP at the end of 1998.
- The deficit in the financial balance was 0.8 per cent of GDP in 1997, measured according to the accounting principles as applied within the EU (ESA). Thus Sweden met by a good margin the reference value for general government finances, 3 per cent of GDP, as stated in the convergence criterion. Measured according to Swedish accounting principles for the national accounts, the deficit came to 1.1 per cent of GDP.
- In 1998 general government revenue are expected to exceed expenditure. The reported general government surplus is estimated to be 0.8 per cent of GDP.¹

Table 3.5 shows the general government balance in accordance with the rules for the European System of Accounts (ESA), which apply within the EU, inter alia, for assessing Member States' deficits. Accounting statements prepared according to the Swedish

¹ This figure includes the effect of making the property holdings of the National Insurance Pension Fund into a company during the year, a change that was booked as an improvement of the general government balance. After the subtraction of this effect and with the addition of dividends from the state-owned property company, Securum, which are not included in the financial balance, but all the same amount to real revenue to the State, the surplus in the financial balance becomes 0,2 per cent of GDP. Measured in accordance with Swedish national accounts the corresponding figure is 1.0 per cent of GDP.

National Accounts differ in certain respects from these rules.² There are plans to change the Swedish National Accounts to conform to ESA in 1999.

Starting in 1997 a new budget process was put into practice, which means, inter alia, that the Riksdag decides on the central government's nominal fixed expenditure ceiling for the coming three years. Thus in the spring of 1996 the Riksdag passed a resolution on the expenditure ceilings for 1997, 1998 and 1999 that meant, inter alia, that the ceiling for central government expenditure would be raised by less than 1 per cent a year in nominal terms.

In recent years financial policy has consistently been adjusted in order to achieve budget policy objectives. In the 1996 Spring Budget Bill the judgement was made that it would not be possible to achieve a balanced budget in 1998. Therefore the Consolidation Programme was expanded to include further savings that were estimated to strengthen the public finances on a sustainable basis in 1998 by SEK 8 billion. Thus the total Consolidation Programme was equivalent to 8 per cent of GDP.

TABLE 3.4 CHANGES IN GENERAL GOVERNMENT FINANCIAL BALANCE

PER CENT OF GDP
ACCORDING TO SWEDISH DEFINITION

	1994	1998 ¹	CHANGES 1994-1998	CONVER- GENGE- PROGRAMME ²
Revenue	59.7	62.5	+2.8	+1.9
Taxes	49.8	53.9	+4.1	+1.8
Other income	9.9	8.6	-1.3	+0.1
Expenditure	70.0	61.8	-8.2	-7.6
Household transfers	25.6	21.9	-3.7	-4.8
Subsidies etc.	7.2	6.3	-0.9	-0.8
Consumption and investment	30.2	27.9	-2.3	-3.1
Interest expenditure	6.8	5.8	-1.1	+1.1
Primary savings	-9.5	1.8	+11.3	+10.8
Financial balance	-10.3	0.8	+11.0	+9.5
Central government	-11.7	0.1	+11.8	+9.8
Social insurance	1.6	0.5	-1.1	-0.7
Local government	-0.2	0.2	+0.4	+0.3

1. Excluding effects of transferring real estate holdings of National Pension Fund to limited company form

2. Change according to Convergence Programme 1994-1998

Between 1995 and 1996 general government finances strengthened more than was expected. Therefore

² The differences with respect to the general government balance chiefly concern the timing of certain taxes and interest expenditures. As presented in the table, the estimate of GDP also differs, which is why the deficit and debt ratios are also affected by differences in accounting principles.

TABLE 3.5 GENERAL GOVERNMENT FINANCIAL BALANCE

ACCORDING TO ESA-RULES

	SEK BILLION 1997	PER CENT OF GDP				
		1994	1995	1996	1997	1998
Revenue	1091.9	59.7	59.6	62.3	62.1	62.1
Taxes and charges	941.6	49.8	50.2	52.8	53.5	53.5
Other income	150.2	9.8	9.4	9.5	8.6	8.6
Expenditure	1106.2	69.7	66.5	65.8	63.4	61.3
Household transfers	387.9	25.6	23.6	22.8	22.2	21.7
Subsidies etc.	116.6	7.4	7.7	7.6	6.7	6.2
Consumption	449.3	27.1	25.7	26.1	25.8	25.5
Investment	43.4	3.0	3.1	2.1	2.5	1.4
Interest expenditure	109.0	6.8	6.4	7.2	6.2	6.5
Financial balance	-14.2	-10.3	-6.9	-3.5	-0.8	0.8
Consolidated gross debt	1337.0	79.0	77.6	76.7	76.6	74.0
GDP, level	1744.7	1537.6	1657.4	1698.4	1744.7	1828.8
According to Swedish definition						
Financial balance	-19.1	-10.3	-7.8	-2.1	-1.1	1.6
Consolidated gross debt	1337.0	79.3	78.0	77.2	76.9	74.3
GDP, level	1738.9	1531.1	1649.9	1688.2	1738.9	1822.7

in 1997 in the Spring Budget Bill, as in the Budget Bill for 1998, it was estimated that there was scope within the framework of the budget policy objectives and unaltered expenditure ceilings for increased efforts to reduce unemployment, inter alia, by a further expansion of education programmes. In addition certain social insurance benefits were raised.

The total improvement in the general government balance between 1994 and 1998 is estimated at 11 per cent of GDP. The greater part of this improvement is attributable to a declining percentage of expenditures. General government expenditures have decreased a total of 3 per cent in real terms in this four-year period. Expressed as a percentage of GDP, expenditure has shrunk 8 percentage points, from 70 per cent to 61 per cent.

The tax ratio, taxes and fees as a proportion of GDP is estimated at 53.5 per cent this year, an increase of 3.7 percentage points since 1994. However tax receipts in 1998 can, in part, be regarded as temporarily high. One reason is the large capital gains during the previous year. Adjusted for temporary effects, the tax ratio is estimated to have increased by 3 percentage points.

The consolidation of the public finances mainly entails structural changes, that is to say a sustainable improvement in the general government balance. Table 3.6 gives a breakdown of the changes in the general government balance between 1994 and

1998. The component attributed to growth has here been defined as 75 per cent of the deviation in GDP annual growth from a trend value of 2.0 per cent. As is evident in the table, the growth can explain only a lesser share of the improvement in the general government balance between 1994 and 1998. In addition the tax base has grown more weakly than GDP, indicating that growth has been supported by foreign trade and investment. The underlying strengthening of the general government balance is estimated at 10 percentage points. The savings equivalent to 8 per cent of GDP realised under the Consolidation Programme are part of this underlying strengthening. Moreover local government consumption as a percentage of GDP decreased by 2 percentage points in volume, a decrease that was not included in the Consolidation Programme.

The general government consolidated gross debt has been reduced from 78.8 per cent of GDP at the end of 1994 to an estimated 74.2 per cent of GDP at the end of 1998. Developments with respect to debt have been considerably more favourable than expected. In the Convergence Programme it was estimated that general government gross debt would grow more quickly than GDP and the debt ratio would accordingly rise. At the end of 1998 general government gross debt will be SEK 190 billion less than anticipated in 1995. The greater part of this dif-

ference is explained by the improvements in the general government balance.

The general government net debt, due to rising asset prices, has only grown by SEK 35 billion in these years.

TABLE 3.6 CHANGE IN PUBLIC SAVING

PER CENT OF GDP

	1995	1996	1997	1998	SUMMA
Change in financial balance	2.6	5.7	1.0	2.7	12.0
Interest expenditure	-0.4	-0.4	0.0	0.7	-0.1
Economic growth	1.3	-0.5	-0.2	0.7	1.3
Tax bases/GDP	-1.5	1.0	0.2	-0.3	-0.6
Timing of tax revenue	0.2	0.9	0.0	0.3	1.4
One-off effects	-0.5	-0.1	-0.4	0.8	-0.2
Structural change	3.5	4.8	1.3	0.6	10.2

4 The Swedish Economy to 2001

4.1 The 1998 Starting-Point

Sweden's economy presently is in a distinct upward phase. According to preliminary data GDP increased at an annual rate of 3.3 per cent in the fourth quarter of 1997. Labour force surveys point to a continued marked improvement in labour market conditions. The number of unemployed in February 1998 was 93 000 less than one year ago and the level of newly announced job vacancies is high.

The financial crisis in Asia is a cause for concern, but it is expected to have limited effects on the Swedish economy. New orders to the export industry have declined somewhat, but continue on a high level. The competitiveness of Swedish industry continues to be strong.

This year foreign trade will increasingly be displaced by domestic demand as the propellant of growth. According to confidence indicators, households have a relatively optimistic view of both their own and the country's economies. The drop in interest rate levels and a rise in property prices, together with increasing stock prices have strengthened households' financial positions. This year real disposable incomes are estimated to grow by 2.5 per cent, after several years of negative growth. With falling unemployment, conditions are therefore favourable for growth in private consumption to continue to be brisk.

Statistics on apartment starts indicate that residential construction is now beginning to recover from a very sharp decline in 1997. After stagnating in 1997 business investments are also expected to increase. GDP growth is expected to amount to 3 per cent this year. It should be pointed out that this figure is affected by an 'overhang' because growth was especially strong at the end of 1997.

Several of the imbalances that characterised the Swedish economy when the Convergence Programme was presented have been overcome. Public finances are under control and this year a general government surplus of 0.8 per cent of GDP is expected, while the debt ratio has fallen four years in a row. The European Commission is recommending in its convergence report of March 1998 that the decision that an excessive deficit exists in Sweden be abrogated and that the convergence criteria with respect to the public finances can thereby be considered fulfilled.

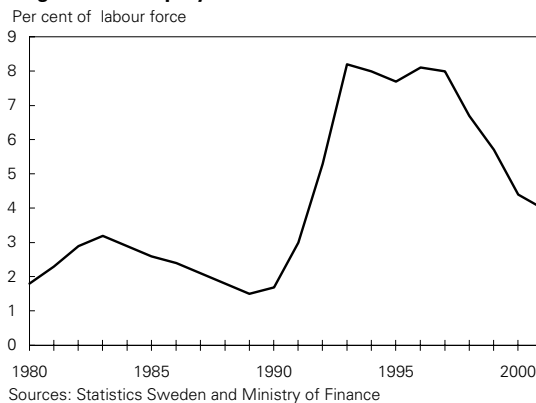
Inflation is stable at a low level. This year consumer prices are expected to rise by half a per cent during the course of the year. Measured by the harmonised consumer price index used to compare EU countries, the rate of inflation is estimated at 0.8 per cent during the course of the year.

The wage agreements entered into thus far indicate that wage increases will be smaller this year than

last, despite the increased demand for labour. The forecast calls for an average wage rate increase of 3.0 per cent, which is consistent with the estimates made in conjunction with the wage agreements.

The remaining imbalance in the Swedish economy is employment. However at present open unemployment is declining relatively quickly. The number of employed in February 1998 was 38,000 more than one year earlier. All this increase in employment has taken place in the business sector. During the course of 1998 unemployment is estimated to decline further so that by the end of the year it will be 6.5 per cent of the labour force. The size of the labour market programmes remains approximately unchanged at an average of 180,000 persons or 4.2 per cent of the labour force.

DIAGRAM 4.1
Registered unemployment



4.2 Economic Policy

The direction of economic policy that was laid down in the Convergence Programme will be pursued in the coming years. Stable macroeconomic conditions, including sound public finances and stable prices, comprise the conditions for bringing about an economic growth that will help reduce unemployment.

In the spring of 1996 the Government established the goal of halving the 1996 level of open unemployment before the end of the year 2000. This implies an unemployment rate of 4.0 per cent of the labour force. The Government has also drawn up a number of guidelines on how unemployment will be reduced. According to these guidelines, unemployment will be reduced by more people getting jobs or by training that gives them better qualifications for securing work. In addition the bulk of the increase in employment will take place in the business sector. Within the framework of a balanced budget there is room for some public expenditure increases. When these expenditure increases are made, public sector activities – in the form of education, health care and social services – will be given priority over transfers.

In accordance with the conclusions of the EU summit meeting on employment in Luxembourg in November 1997, Sweden is presenting in connection with the Spring Budget Bill a national action plan to implement the employment guidelines adopted at the summit meeting.

The main way to reduce unemployment in the long term is to improve workers' qualifications and thus better match the supply of labour with the demand at the prevailing wage level and wage structure. Therefore a considerable expansion in the number of places for students in the educational system is now under way. In the coming years 60,000 new university places will be added and 140,000 places in adult education. The focus on education aims at increasing flexibility in the labour market, averting shortages that can lead to inflation and strengthening the competence of the labour force. This effort should be seen, *inter alia*, against a background of a relative decline in the number of students and an enrolment rate that is lower than in many other countries. In co-operation with the business sector, a national programme directed at the unemployed to provide training in information technology will be initiated.

Lower unemployment with sustainable low inflation increases the demands on wage formation to function properly. Seen in a long-term perspective, the rate of increase in wages in Sweden has been higher than in competing countries. In recent years a very substantial increase in productivity has been able to compensate for this higher rate. However in the future the rate at which wages increase can hardly exceed that in other countries.

Wage formation, by tradition, is primarily a question for the social partners. However the Government, in consultation with representatives of the social partners, has assigned a special commissioner to try and see if the official regulations governing the wage negotiations, such as the regulations on conflicts in the labour market and conciliation can be changed in a way that facilitates wage agreements at a lower level.

Against a background of low inflation, reduced inflationary expectations and the social partners' realisation of the importance of a wage formation that does not drive inflation, the possibilities are deemed to be good that the rate of increase in wages can come down to a level that makes sustainable low employment possible in the future.

Budget consolidation will continue. In the 1997 Spring Budget Bill the Government established a specific budget policy goal for the period after 1998: general government finances will show a surplus equivalent to 2 per cent of GDP seen over one business cycle. The goal will be achieved gradually by a surplus of 0.5 per cent in 1999 and 1.5 per cent in the year 2000. Owing to cyclical factors, the general government balance will deviate from the numbers

above to the same extent that the economic growth deviates from what was anticipated in the 1997 Spring Budget Bill. Stronger cyclical growth than estimated will lead to a more rapid consolidation of the general government balance.

The goal of a surplus is motivated in part by the cyclical sensitivity of the public finances. A surplus under normal economic conditions avoids the risk of having to implement savings when the economy is weakening in order to prevent the deficit from becoming too large. This is in keeping with the requirement in the Stability and Growth Pact that the deficit in the general government balance should not exceed 3 per cent of GDP. In addition the general government financial position needs to be strengthened before the budgetary encumbrances that demographic developments will impose in the next century.

Control over expenditure growth in the local government sector is being exercised in a manner corresponding to the controls on central government expenditure. This will be achieved by the statutory balanced budget requirement that will take effect beginning in the year 2000. This requirement means that municipalities and county councils cannot plan to have financial deficits. Along with some restrictions on municipal tax increases, this balanced budget requirement establishes limits on municipal expenditures. The fiscal policy objectives permit an increase in municipal activity in the future. State grants to municipalities and county councils are therefore being raised in several stages for a total of SEK 20 billion by the year 2000. The purpose of this additional contribution is to improve the quality of education, health care and social services. In recent years resources for these activities have been drawn down considerably and increased productivity has not been able to match this drawdown in full.

An overhaul and reform of social insurance is presently under way. The aim is to refine the various insurance options by clarifying and tightening up the right to compensation. With that, expenditure control becomes easier. The Government has recently presented principles for a reform of the early retirement pension system. These principles are aimed in part at strengthening the activation principle; that is, work always will be rewarded before passive compensation.

In connection with the Spring Budget Bill, the Government is putting forward a proposal for sweeping reforms to the general old-age pension system. One of the aims of the reform is to create a more stable pension system in which the benefits are adjusted for changes in the economic and demographic conditions. Because income during the entire working life is to affect the size of the pension, the incentive to work is reinforced, even in the retirement pension system.

4.3 Outlook for Sweden's Economy to 2001

In the 1998 Spring Budget Bill the Government gives its assessment of economic prospects up to the year 2001. The growth forecast for the Swedish economy is based on a relatively favourable picture of the international business cycle. After weakening this year, as a consequence of the crisis in Asia, growth will accelerate again in 1999 and 2000, with growth for the OECD area of about 2½ per cent annually. Towards the end of the forecast period some moderation will occur. At the beginning of the forecast period, the Swedish economy was characterised by unused resources, both labour and fixed capital, which make possible a growth in production that exceeds the long-term trend without causing inflationary tendencies. With sustainable low inflationary expectations and a wage formation process that functions better than it did previously, the rate at which wages increase may be able to be limited to 3 per cent a year. At that level the Swedish export industry can remain competitive. Swedish firms will continue to win market share, but at a more moderate pace, allowing scope for export growth of 7 per cent a year in 1999 and 2000.

TABLE 4.1 FORECAST FOR THE SWEDISH ECONOMY

	SEK BILLION 1997	PERCENTAGE CHANGE			
		1998	1999	2000	2001
Private consumption	922.9	2.3	2.5	2.2	2.0
Public consumption	449.3	1.3	0.6	0.7	1.0
Central government	134.2	2.5	0.5	0.5	0.5
Local government	315.1	0.8	0.6	0.9	1.2
Gross fixed investment	237.9	7.2	7.6	7.0	5.7
Change in stocks	6.8	0.0	0.0	0.0	0.0
Exports	761.4	6.3	6.7	7.0	5.4
Imports	639.5	6.9	7.0	6.2	5.8
GDP	1738.9	3.0	3.1	3.4	2.6

A strengthening of domestic demand is making it necessary to expand capacity in that part of the business sector that appeals to the domestic market. Therefore during the period of the forecast, a broadening of the investment activity will occur that hitherto was concentrated in export-oriented industries. Residential construction is estimated to rise to a higher level as well.

The effects of the budget consolidation on Swedish households die away after 1998. Household real disposable income is estimated to grow at a relatively good rate during the forecasted period. Pensions will be raised in both 1999 and 2000 in excess of the upward adjustment for price increases when the re-

duction of the base amount that has been applied since 1992 will be abolished. Household savings are expected to increase somewhat relative to their very low level in 1998. This increase reflects, inter alia, more moderate growth of household wealth than that of the past few years. This provides scope for a growth in private consumption of more than 2.5 per cent a year.

The estimates indicate that some growth in public consumption can also take place within the limits set by the budget policy objectives. The increased emphasis on health care and social services represents a growth in municipal consumption of 0.8 per cent, after decreasing for four years.

During the years covered by the forecast, interest rates are expected to rise somewhat, both in Sweden and abroad. Large surpluses in the current account balance and continued low inflationary expectations should allow scope for a strengthening of the Swedish krona. For the same reasons the interest rate differential relative to other countries will be reduced somewhat more during the period of the forecast.

A good rate of growth and moderate wage increases provide the conditions under which the growth in employment that has now begun will continue and even strengthen. Under these conditions, it is estimated that the Government's goal of halving unemployment can be achieved by the end of the year 2000.

TABLE 4.2 FORECAST FOR KEY INDICATORS

	1998	1999	2000	2001
<i>Annual percentage change</i>				
Number of employed	1.0	1.5	2.0	1.1
Hours worked	1.0	1.4	1.9	1.0
<i>Level</i>				
Unemployment	6.7	5.7	4.4	4.0
Labour market programmes	4.2	4.0	3.9	3.5
Household real disposable income	2.5	2.9	3.7	3.1
Net savings ratio	0.9	1.3	2.9	4.0
Current account balance	3.5	3.7	4.0	4.3
Swedish five year bond rates	5.30	5.35	5.40	5.40
ECU index	117.4	116.0	114.5	114.0

The public finances after 1998

As presented above the Government has formulated an objective for public finances that means that the public sector is to show a surplus of ½ per cent of GDP in 1999, 1½ per cent of GDP in 2000 and thereafter 2 per cent of GDP. With the forecast of the economy reported above and the proposals presented in the Spring Budget Bill, the general government balance will exceed this objective by some margin.

For 1999 the general government balance is estimated at 0.8 per cent of GDP. Adjusted for the effect

of the conversion of the property holdings of the National Pension Fund into independent company status in 1998, the public finances will continue to strengthen. The objectives for the general government balance are also exceeded in 2000 and 2001. For this year the technical assumption is made that the budget policy objectives will be governing and that the excess that the calculations show will be used for income transfers to households.

As a result of the surplus, the consolidated gross debt will begin to decline starting in 1999. During the forecast period from the beginning of 1998 to the year 2001, the debt is estimated to decrease by over SEK 100 billion in total. Measured as a percentage of GDP, the decrease is even more pronounced and at the end of the year 2001 the debt ratio will amount to 63 per cent of GDP.

TABLE 4.3 FORECAST FOR PUBLIC FINANCES

PER CENT OF GDP
ACCORDING TO SWEDISH DEFINITION

	LEVEL	PER CENT OF GDP			
	SEK BILLION 1997	1998	1999	2000	2001
Revenue	1092.6	62.5	60.8	60.1	59.7
Taxes	941.7	53.9	52.9	52.4	52.3
Other income	151.0	8.6	7.9	7.7	7.4
Expenditure	1111.9	61.0	60.0	57.7	56.1
Household transfers	387.9	21.9	21.0	20.1	19.6
Subsidies etc.	118.4	6.3	6.1	5.8	5.5
Consumption	449.3	25.7	25.4	24.9	24.7
Investment	42.4	1.4	2.2	2.2	2.2
Interest expenditures	113.9	5.8	5.4	4.6	4.2
Primary saving	10.1	2.6	2.1	3.0	4.0
Financial saving	-19.1	1.6	0.8	2.3	3.5
Central government	-22.9	0.1	0.5	2.3	3.6
Social insurance	11.0	1.3	0.2	-0.2	-0.4
Local government	-7.2	0.2	0.2	0.2	0.3
Consolidated gross debt	1337.0	74.3	71.0	66.8	62.9
Net debt	377	20.0	18.1	15.8	13.1

4.4 Sensitivity Analysis for the Public Finances

In the past two decades there have been large swings in the general government balance. These swings have largely showed a covariance with economic trends.

Compared with other countries, Sweden has a large public sector, with proportionately high income taxes and substantial benefits from public insurance

of income. This means that both public revenues and expenditures vary with swings in total income. However a significant covariance between the general government balance and business conditions may also be the result of an active countercyclical fiscal policy; that is, discretionary measures are taken that weaken public finances during a recession and reinforce them during a boom.

With a view to shedding light on the sensitivity of public revenues and expenditures to economic fluctuations, two sensitivity analyses are shown below. They examine two alternative paths for economic development between 1999-2001. They differ from the base case calculation already described in the following ways:

- In alternative 1 the international situation, beginning in 1999, is assumed to be worse than what is anticipated in the base case calculation. Initially this leads to slower export growth, but the weakening economic conditions also spread to the domestic economy in the form of lower investments and a higher household savings ratio. Wage and price developments are not expected to deviate from the base case calculation. Fewer average hours of work and lower productivity owing to weaker economic conditions imply that employment will not deviate as much from base case calculation as the GDP level will.
- In alternative 2 domestic wage formation is expected to function worse and lead to wages increasing at a higher rate. This higher rate pushes up interest rates and weakens the cost position of sectors exposed to competition. Household incomes are first affected in a positive direction compared with the base case forecast, but a weaker employment picture and higher interest rates eventually dampen domestic demand. The higher labour costs are also expected to mean a more rapid rationalisation.

For both alternative paths of development, fiscal policy is assumed to take the same direction as in the base case scenario. It is assumed that no discretionary measures are taken to counter the slower growth. The scope of the labour market policy measures is the same as in the base case forecast. The municipalities are assumed to meet the balanced budget requirement in the year 2000. This assumption means that municipal consumption is to be adjusted with a view to how tax revenues are affected. Monetary policy is governed by the inflation objective. In alternative 2, this forces a rise in the instrumental rates relative to the base case calculation.

The results of the sensitivity analyses are summarised in Tables 4.4 and 4.5.

**TABLE 4.4 SENSITIVITY ANALYSIS I:
RECESSION**

DEVIATION FROM BASE SCENARIO, LEVEL
PER CENT

	1998	1999	2000	2001
GDP	0.0	-1.0	-3.0	-3.0
Private consumption	0.0	-0.9	-2.4	-2.2
Public consumption	0.0	-0.4	-1.0	-1.2
Hours worked	0.0	-0.9	-2.7	-2.7
Unemployment	0.0	0.5	1.5	1.6
Hourly wages	0.0	0.0	0.0	0.0
CPI	0.0	0.0	0.0	0.0
Short term interest rates	0.0	-1.0	-1.0	-1.0
Long term interest rates	0.0	0.0	0.0	0.0
Public sector financial balance	0.0	-0.5	-1.5	-1.7
Primary saving	0.0	-0.5	-1.1	-1.3

**TABLE 4.5 SENSITIVITY ANALYSIS II:
WAGE FORMATION**

DEVIATION FROM BASE SCENARIO, LEVEL
PER CENT

	1998	1999	2000	2001
GDP	-0.1	-0.5	-1.3	-1.8
Private consumption	0.2	0.1	-0.3	-0.6
Public consumption	0.0	-0.1	-0.2	-0.8
Hours worked	-0.2	-0.8	-1.7	-2.4
Unemployment	0.2	0.5	1.1	1.5
Hourly wages	0.9	1.9	2.9	3.4
CPI	0.3	0.5	0.5	0.5
Short term interest rates	0.5	1.0	1.0	1.0
Long term interest rates	0.2	0.5	0.5	0.5
Public sector financial balance	0.1	0.0	-0.5	-0.8
Primary saving	0.1	0.0	-0.4	-0.7

In alternative 1 the slower growth of the tax base means that revenue in the public sector grows more weakly than in the base case calculation. However both total wages and private consumption rise as a share of GDP. On the expenditure side unemployment related expenditures rise, as do certain transfers to households. All things considered, in 2001 the general government balance as a percentage of GDP is 1.7 per cent lower than in the base case forecast. The difference in GDP comes to 3 per cent. Thus the effect on public finances corresponds to more than half of the GDP difference.

In alternative 2 the effects on the public sector arise primarily on the expenditure side in the form of higher unemployment benefits and higher interest expenditures. The tax bases are initially preserved by the higher wage increases. Therefore the impact on the public finances during the period in question will

be relatively small – 40 per cent of the difference in GDP in 2001.

Compared with previous experience, this sensitivity analysis shows that the economic situation has relatively little effect on the public finances. One contributing factor is the balanced budget requirement in the municipal sector. Since many municipalities will be close to balance in coming years, municipal consumption and investments will have to be adjusted to swings in tax revenue and costs. Therefore in both alternatives public consumption is lower and it consequently contributes to the lower growth. Another contributing factor is that the rate of inflation is lower and more stable than it has been in the past.

Environmental Considerations in Economic Policy

Introduction

Economic policy has as its goals growth, employment and social justice. A main goal of the policy is growth that is ecologically sustainable in the long term. The Convergence Programme presented in 1995 includes a list of the requirements for long-term environmentally sustainable measures. The Programme notes that economic controls should be used to improve the conditions for protecting the environment and promoting sustainable growth. The Programme also stresses the increased responsibility that producers must take to limit the environmental impact of their goods and services.

It should be pointed out that environmental problems are largely international. It is Sweden's view that the ambitions in the environmental policy area should be raised in the context of European cooperation. The new Treaty of Amsterdam makes sustainable development a primary goal of the European Union.

In accordance with the Convergence Programme there is a semi-annual review of the performance of the Swedish economy in relation to the convergence criteria. The Government regularly reports developments in the environmental area and the environmental policy direction in connection with government bills and submissions to the Riksdag. The Government's most recent submission to the Riksdag on the environment (skr. 1996/97:50) gives an account of current environmental efforts in various parts of society to promote sustainable development.

The effects of environmental policy and economic policy are long term; therefore, it can be difficult to evaluate the environmental consequences of policy concurrently with its implementation. In certain cases, for example, legislation, the policy has an immediate effect, while in other cases, for example, changes in taxation, a long-term adjustment is re-

quired of society in order for the measures to have an effect. However since 1995 the Convergence Programme has indicated the direction of economic policy and therefore there are now grounds for making a general assessment of how the environmental objectives in the Convergence Programme have been fulfilled.

Economic Policy and Environmental Policy

During the long time that industrialisation was the dominant force, a growth in output often led to increased emissions of environmentally hazardous substances as well as higher consumption of energy and other resources. In recent decades changes in the pattern of growth, caused in part by environmental policy and increased environmental awareness, have helped weaken significantly the link between increased output and negative environmental effects. However the need for improvement and more efficient use of resources continues.

Economic policy determines what room households and businesses have for manoeuvre and influences their behaviour through changes in prices and incentives. Individual components of economic policy can unintentionally have as a side effect excessive exploitation of the environment and natural resources. The formulation of economic policy is thus important in achieving the conditions for sustainable development. Therefore it is essential at an early stage to analyse and take into consideration in decision-making the environmental consequences of those measures having an obvious connection to the environment. An important function of economic policy is that, through tax policy, it influences households and businesses to take the environment into consideration in their behaviour. In many instances taxes and fees are the most cost-effective means of

affecting the volume of emissions. Sweden has for a long time led the way when it comes to using environmental taxes and fees.

Environmental policy needs to be efficient and take into consideration the social benefits and costs. Environmental policy should therefore be designed to be as cost-effective as possible; that is, so that the desired environmental effect is achieved at the lowest possible cost. Thus society will have more resources left that can be used for additional environmental purposes. In addition to taxes, important instruments of environmental policy include legislation and information related measures, for example, environmental labelling and environmental accounting.

Significant Environmental Measures Since 1995

Since the Convergence Programme was presented in 1995, the Government has taken a number of environmental measures that promote economic development in environmentally acceptable forms. Some of the most important measures are reported here.

Both energy and carbon dioxide taxes have been raised regularly both before and after 1995. The most recent increase in the carbon dioxide tax entailed a slight general increase in the tax rate and a doubling of industry's tax. At the same time the rules on tax reductions for energy intensive industries were changed. This change was expected to lead to an increase in demand for biological fuels as a consequence of falling demand for oil. As a result carbon dioxide emissions are expected to decline. The changes in the taxation of company cars (see Government Bill 1996/97:19, bet. 1996/97:FiU1, skr. 1996/97:53) means that the tax has a higher environmental profile in that petrol costs for private use are to be borne by the car owner. A tax on gravel from natural sources was introduced in 1996. This tax is expected to reduce the proportion of such gravel used in roadbeds from 53 per cent to 30 per cent. Crushed rock will be used in its place. This change entails a marginal increase in building costs and a rise in energy consumption by industry.

To promote recycling, producer responsibility for a series of items has been introduced. In 1994 producer responsibility for packaging, waste paper and tyres came into effect. In 1997 the Government presented a bill on the handling of waste (Government Bill 1996/97:172) to the Riksdag. It means, inter alia, that the dumping of organic waste will not be allowed in the future. The Bill also contains the Government's guidelines on how producer responsibility for electrical and electronic products ought to function. A regulation on producer responsibility for vehicles came into effect January 1, 1998.

In 1997 the Government presented a bill on energy policy (Government Bill 1996/97:84). The bill contains a programme for ecologically sustainable energy systems. The programme includes support for wind power, small-scale hydroelectric power, combined power and heating production with biological fuels, the acquisition of new technology for the production of electricity and more funds for research. The programme also includes informational and educational measures and measures for acquiring technology in order to achieve better energy economy. The bill also provides for support for energy efficiency and measures for improving the environmental impact of electricity and heating plants around the Baltic. The measures are an important part of the Swedish policy on the climate.

In 1997 the Government presented a proposal for an environmental code. The purpose of the code is to promote sustainable development so that present and future generations are ensured a healthy and pleasant environment. A new instrument in the form of environmental quality norms is proposed, stricter requirements for environmental assessments are being imposed and the conditions under which environmental infractions can be tried are being tightened. The same requirements are to apply to all types of activities.

On the international level Sweden has the following priorities for environmental work in the EU: acid rain and climate change; chemicals and pesticides; ecological adaptation and biological diversity; and natural resource management. On a Swedish initiative the EU Commission has drawn up a proposal for an EU strategy to fight acid rain. With respect to climate change Sweden is a driving force in international efforts. In December 1997 the third meeting of the parties to the United Nations Climate Convention was held in Kyoto. The outcome of the meeting was that the EU will reduce emissions of six greenhouse gases, among them carbon dioxide, by 8 per cent, the United States by 7 per cent and Japan by 5 per cent between 1990 and the years 2008 to 2012. Discussions on burden sharing within the EU are expected to begin in spring 1998. Sweden is also promoting work in the EU to design a strategy for integrating environmental considerations into all sectors of society.

In the spring the Government is expected to present a bill on environmental policy. It is expected to contain 15 national environmental quality objectives concerning, inter alia, fresh air, water quality, wetlands, eutrophication, acid rain, the ozone and climate change as well as protected forest, rural and mountain areas, chemicals, built-up areas and protection against radiation.

The Environmental Situation in Sweden

As mentioned in the introduction, the environmental policy works slowly and the environmental consequences of economic policy are difficult to evaluate concurrently with its implementation. Therefore it is interesting to watch development over a longer period. The environmental effects and the state of the environment are largely complex variables that are often difficult to measure and assess.

The Convergence Programme stresses that the environmental debt must not increase. Hitherto the environmental debt has been defined as the cost of restoring the environment to a suitable level. Since 1995 the Government has expanded its efforts for sustainable development. In the 1997 Spring Budget Bill the Government defined its view of what is required for ecologically sustainable development. Three overall objectives were formulated: protection of the environment, efficient use of energy and natural resources, and 'sustainable use'; that is, safeguarding the ecosystems' long-term productive capacity. With the Government's broad approach to sustainable development, the above definition of environmental debt is insufficient. Several components of what the Government views as sustainable development are not included in the concept.

It is important to follow developments and assess the extent to which the development of society is sustainable and appraise the progress that has been made. The Environmental Advisory Council, in cooperation with the Swedish Environmental Protection Agency, has been entrusted the task of proposing indicators for environmentally sustainable development. The work of the National Institute of Economic Research (N.I.E.R) and Statistics Sweden on developing monetary and physical environmental accounts will also be taken into consideration.

Since indicators for environmentally sustainable development in Sweden are not yet ready, it is difficult currently difficult to do a comprehensive follow up of the development. However as soon as indicators become available, a follow up will be done.

What then can be said about the environmental consequences of economic policy since 1995 and the effects of the policy that has been implemented? Current statistics from Statistics Sweden and others yield a general picture primarily of environmental protection. Nevertheless, in order to have some basis for assessing how the environmental ambitions in the Convergence Programme have been followed up, the development of some environmental indicators related to the three objectives for environmental sustainability are described in the following three sections.

Environmental protection

In addition to natural processes, soil and water acidification is largely caused by acidic sulphur and nitro-

gen fall-out. Between 1980 and 1995 sulphur emissions in Sweden declined by about 80 per cent. This decrease is principally a consequence of switching to oil with a lower sulphur content. Since the beginning of the 1990s Swedish emissions have remained at a relatively constant low level. Despite this accomplishment, the sulphur problem is far from a solution as more than 80 per cent of the sulphur content in acid rain comes from foreign sources. Road and other forms of transport are responsible for more than 80 per cent of the emissions of nitrogen oxides. Between 1980 and 1995 these emissions were reduced by 20 to 30 per cent. The goal was a 30 per cent reduction.

Carbon dioxide is a greenhouse gas, which, like methane, nitrogen dioxide, ozone and several others is presumed to strengthen the greenhouse effect and thereby affect the global climate. Sweden's carbon dioxide emissions fell by about 30 per cent in the 1980s. However in the 1990s emissions have followed a weak upward trend. On the basis of numbers adjusted for a normal year, emissions of carbon dioxide are estimated to increase by 4 per cent to the year 2000. Calculated on a per capita basis emissions of carbon dioxide in Sweden are much lower compared with most other industrial countries. More than one third of the Swedish emissions come from road traffic.

Eutrophication of lakes and oceans is due to high concentrations of the growth nutrients, nitrogen and phosphorus, among other things. Until the middle of the 1980s eutrophication along the West Coast and the Baltic Sea were increasing. Since then the percentage of nitrogen and phosphorus has tended to stabilise or possibly fall. Waterborne emissions of nitrogen from Sweden to the surrounding sea have declined by around 20 per cent and a reduction of about the same size has occurred in total airborne nitrogen discharges into the Baltic Sea. There have been obvious improvements in many lakes even if every seventh lake is still too rich in nutrients.

Emissions of most metals have declined sharply during the past 20 to 25 years, from 20 to 30 tons a year at the beginning of the 1970s to about 1 ton a year. At present discharges of metals mostly come from other countries.

Economic activities based on the land, primarily agriculture and forestry, have the greatest negative effect on biological diversity in recent decades. The problems mainly have to do with destruction and degradation of natural habitats for plants and animals by cutting, drainage, afforestation and fertilising of natural feeding grounds. However considerable efforts are under way in these sectors to turn the situation around and instead adapt development in order to help protect biological diversity.

Efficient resource use

From a global perspective, many environmental problems are linked to energy production and use, principally through the use of fossil fuels. In 1995 Sweden's total energy supply was about 32 per cent higher than in 1970 (if losses incurred in the process of generating nuclear power are included) while gross domestic product increased in constant prices by about 48 per cent. This implies that the Swedish economy has become less energy intensive between 1970 and 1995. At the same time energy consumption in Sweden is relatively high compared with many other industrial countries, owing in part to the cold climate, energy intensive industry and the long transportation distances.

Sustainable use

Sustainable use means that the use of resources over the long term cannot exceed the rate at which nature can renew them.

The supply of timber in Sweden has increased by 65 per cent since the 1920s. The growth of timber has also increased. Felling has been lower than growth for a long time and is predicted to remain so for at least another few decades.

Estimates of the natural fish stocks in our coastal water have been made since 1974. Fish stocks and catches off both the east and west coasts generally declined during the 1970s and parts of the 1980s as a result of overfishing. Salinity and oxygen levels in the Baltic Sea have also fallen as a consequence of eutrophication and inadequate flows of water between the Baltic and the North Seas reduced the number of fish, especially cod. However in the 1990s the fish stocks and catches have been increasing again. The relatively large inflows of oxygen rich water to the Baltic Sea that took place in 1993/94, combined with restrictions on fishing, have led to an increase in the stock of cod beginning in 1995.

Recycling materials is a part of achieving sustainable use. Since 1994 recycling of materials has risen, for example, by 130,000 tons of packaging, 10,000 tons of paper and 10,000 tons of tyres. According to a report from the Environmental Protection Agency producers largely managed to achieve the recycling targets established for 1997 as early as 1996. New and in many cases higher recycling targets have now been adopted for the year 2001.

The Environmental Consequences of Economic Policy

The past 25 years' work in the environmental field has meant that the environmental degradation that had previously been accelerating in our country was curbed and in important respects reversed.

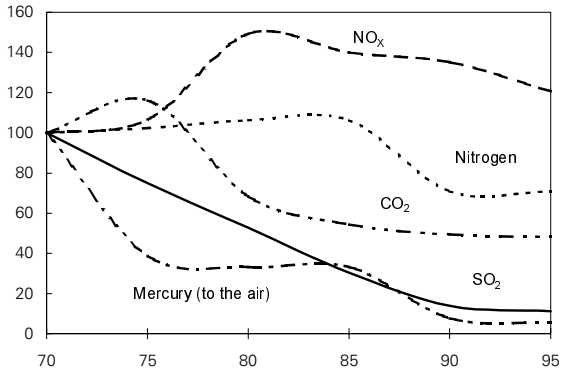
More than 25 years ago a requirement for national plans for urban and regional development with a basic environmental perspective was incorporated into economic and environmental policy and the Nature Conservation Act and the Environmental Protection Act were passed. There have been energy taxes since the 1950s, but they then had only government finances in view. In the 1980s more purposeful activity in the area of the environment began. Energy taxes were raised with a view to the damage to the environment. In 1984 charges on fertilisers and pesticides were initiated. In 1986 taxes on fuels were differentiated and in 1989 an environmental tax on domestic air traffic was instituted. At the beginning of the 1990s the environmental profile for energy taxes was further strengthened. A value-added tax on energy was introduced and a part of the tax on energy was converted to a tax on carbon dioxide. In addition a tax on sulphur in fuel and a charge for emissions of nitric oxide from combustion plants were initiated.

It has become apparent that the environmental and energy taxes that were introduced have in most cases had the intended effect. Swedish emissions of many environmentally harmful substances have dropped sharply. In Diagram A.1 below developments since 1970 for a few important substances are depicted. According to a report from Environmental Protection Agency, the tax on sulphur is responsible for almost 30 per cent of the total reduction in sulphur dioxide emissions in the 1990s. Nitric oxide emissions would have been 3 per cent higher without the charge on nitric oxide. The taxes on the differentiated fuels have led to Environmental Class 1 of diesel oil becoming equivalent to more than 80 per cent of the total diesel oil sales and there has been a complete changeover to Environmental Class 2 of petrol. According to Sweden's Second National Report on Climate Changes, environmental and energy taxes, inclusive of the value-added tax introduced between 1990 and 1996, are estimated to lead to emissions that will be 16.8 million tons (about 23 per cent) lower in the year 2000 than they would have been without the introduction of these measures. Investment subsidies to biological fuel heating, windpower, the expansion of district heating and solar heating plants between 1991 and 1997 are estimated to have led to reduced emissions of carbon dioxide in the year 2000 equivalent to 0.7 million ton (about 1 per cent of the total emissions). The programme for more efficient energy utilisation is estimated by the year 2000 to have resulted in a lowering of carbon dioxide emissions equivalent to 0.2 million tons (about 0.3 per cent of the total emissions). Altogether available information indicates that charges from so-called effects from the external environment on people's health have declined sharply in the past 25 years. At the same time problems remain, for example with acid rain, eutrophication, biological diver-

sity, poisonous chemicals and global issues such as the concentration of greenhouse gases in the atmosphere. In many instances environmental quality has not improved at the same rate as emissions have declined. The reason may be partly the continued fall-out from far away sources of emissions, but it often takes time before reduced emissions lead to reduced concentration of harmful substances in the soil and water.

DIAGRAM A.1
Emissions of a few important substances, 1970-1995

Index 100=Emissions 1970



Note: Information before 1980 is not entirely comparable with data for subsequent years, owing to changes in the estimation methods.
Source: SOU 1997:11, Na 18 SM 9701