Macroeconomic effects of different ways of using the real return on the Norwegian Government Petroleum Fund*

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The new guidelines for economic policy presented by the Norwegian Government in March 2001 permit an increased use of petroleum revenues. At the same time the regulation on monetary policy was changed from an exchange rate target to an inflation target. In this article the macroeconomic effects of different ways of using the extra revenues compared to a balanced reference path are studied using a large-scale macroeconometric model for Norway. The calculations show that the effects are very different, depending on whether the revenues are used for increased activity in the public sector, for income tax reductions for individuals or for lower indirect taxes on goods and services. This is in line with traditional multiplier analysis. The calculations show further that interest rates and hence exchange rates may stay unaltered compared to the reference path, due to an implicit increase in the inflation target. In this sense, the new fiscal and monetary policy guidelines appear to be well adapted to each other.

Introduction

In connection with the presentation of the Long-Term Programme in March 2001 (Report no. 30 to the Storting, 2000-2001), the Norwegian Government introduced new fiscal policy guidelines that will result in a higher non-oil budget deficit in the years ahead than planned earlier (Report no. 29 to the Storting, 2000-2001). The guidelines imply that the structural, non-oil budget deficit over time will increase in step with the expected higher real return on the Government Petroleum Fund. The Fund will nevertheless increase as a result of transfers of central government oil and gas revenues.

The Government's proposal received broad political support, and may therefore be assumed to be a guideline for fiscal policy in the coming Storting (the parliament) period. However, the political parties appear to have different perceptions as to what extent the budget weakening shall be used either to increase spending or to reduce revenues. The various ways of weakening the budget will have different macroeconomic effects on the Norwegian economy. In this article it is our intention to shed light on these effects. We look at three different policy changes: higher spending on public consumption and investment, reduced income taxes and reduced indirect tax rates. We first calculate the effect of a given budget weakening relating exclusively to each of these alternatives. We then calculate the effects of a combined package, with an equal emphasis on each of the alternatives.

The calculations are made using Statistics Norway's macroeconomic model MODAG and cover the period 2002-2010. Even though we have chosen to concretize the policy changes in a way that will demonstrate the typical aspects of each type of change, it must be emphasized that all concrete policy measures have their own special effects and that other ways of concretizing the changes may produce different results.

An important consequence of increasing the "use of petroleum revenues" today is that, other things equal, there will be less to use in the future, i.e. a lower budget surplus today must be matched by reduced deficits in the future. (According to the scenarios published in the Long-Term Program, the reversal seems to take place in 2027.) It is assumed that this question was considered when the new guidelines were drawn up; our analysis is confined to the medium-term

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Table 1. Structural, non-oil surplus, bill. NOK, current prices

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
New guidelines[1]	-20,4	-25,2	-34	-41,9	-49,2	-56,6	-64	-71,3	-78,5	-85,4
Baseline scenario[2]	-20,4	-21,3	-22,4	-23,9	-24,6	.	.	.	.	.
Estimated effect of new guidelines	-	-3,9	-11,6	-18	-24,6	.	.	.	.	.

[1] According to the Revised National Budget for 2001, Report no. 2 to the Storting (2000-2001), p. 39-40.
[2] The structural, non-oil surplus for 2001 is calculated applying annual growth of 4.8 per cent, equivalent to estimated trend growth in GDP of 2¼ per cent and price inflation of 2½ per cent.

macroeconomic implications of different ways of advancing this phasing in of petroleum revenues.

A main concern among Norwegian politicians is the effects of increased use of petroleum revenues on inflation and competitiveness of Norwegian companies. It is important to point out in this connection that it cannot be an objective in itself to determine a way to use the revenues that has minimal effects on the Norwegian economy. If avoiding effects were the main objective, we could either refrain from using the revenues or give them away to other countries. The point of increasing "the use of petroleum revenues" must be that there are aims we want to achieve, and the benefits of these achievements must be compared with their (positive or negative) macroeconomic effects.

In conjunction with the presentation of the new fiscal policy guidelines, the Government also approved a new regulation of monetary policy. Even though the new regulation states that the objective of monetary policy shall be to contribute to consumer price inflation of about 2.5 per cent, the consequences for the setting of interest rates are still unclear. This depends not only on how interest rates actually influence inflation over time, but also how Norges Bank (Central Bank of Norway) perceives the relationship and how it should be used to achieve the target. Moreover, it will depend on how the new regulation and Norges Bank's application of this regulation influence market participants' expectations and behaviour, particularly with respect to the exchange rate. At the moment, we do not have sufficient observations of these conditions to model them, and have instead chosen to carry out the calculations applying two different, but known alternatives: one alternative in which both interest rates and the exchange rate are held constant, and another alternative in which interest rates are set in line with the earlier monetary policy regulation, which aimed at maintaining a stable krone exchange rate against European currencies. It must be emphasized that neither of these alternatives reflects the current monetary policy, but are meant to provide a basis for a discussion concerning how interest rates and exchange rates may be influenced by changes in fiscal policy.

The orientation and dimension of the shifts

As we shall calculate the effects of the new guidelines, we must have some idea of what the former guidelines entailed. We have chosen to look at the effects of the new guidelines in relation to a baseline scenario in which the structural, non-oil Government deficit accounts for the same percentage of mainland GDP as in 2001. In the Revised National Budget presented in May 2001, the Ministry of Finance estimated the structural, non-oil deficit for 2001 at NOK 20.4 billion, i.e. 1.9 per cent of mainland GDP. In the baseline scenario, this deficit increases in value by estimated trend growth in mainland GDP in current prices. The Revised National Budget also contained estimates of the structural, non-oil deficit in the years ahead if the new guidelines are applied. We have apportioned the shifts in such a way that the budget deficit increases by an amount equivalent to the difference between these estimates and the baseline scenario.[1] Moreover, the baseline scenario is designed in such a way that it primarily is intended to reflect reasonable trends in the Norwegian economy, with a stable unemployment rate of 3.5 per cent, which is close to the level recorded by Norway in recent years.

The calculations are made by changing the three different types of fiscal instruments each year in the coming Storting period (2002-2005), with the budget deficit increasing in relation to the baseline scenario as shown in the bottom line in table 1. Policy then remains unchanged in real terms up to 2010 (i.e. unchanged in real terms in relation to the orientation in 2005 as the direct and indirect tax system is adjusted for inflation), which means that the budget balance in these years may develop differently from that which follows from the new fiscal policy guidelines and differently from one scenario to another. In this way, we both determine the potential for policy changes in the coming Storting period as a result of the new guidelines and reveal their consequences for the following five years.

Increasing public spending or reducing revenues will generally influence the level of activity in the economy, and hence have an effect on the budget balance through automatic stabilizers, such as higher tax revenues as a result of a broader tax base or reduced ex-

[1] In Parliamentary Bill no. 1, Amendment no. 4 (2001-2002) the estimated path for future real return was slightly adjusted downwards. At the same time, however, the estimate of the structural, non-oil deficit in 2001 was reduced, leaving the scope for more expansionary policy according to the new rule almost unchanged.

Table 2a. Higher expenditure on public consumption and investment, deviation from the baseline scenario

Bill. NOK, current prices	2002	2003	2004	2005	2006	2007	2008	2009	2010
with unchanged interest and exchange rates									
Budget balance	-3,9	-11,6	-18	-24,6	-28,2	-29,1	-31,3	-33,9	-36,4
Expenditure impetus[1]	11,6	28,4	41,7	59,3	66,4	72,9	78,7	83,5	87,3
Automatic stabilizer effect	7,7	16,8	23,7	34,7	38,2	43,8	47,4	49,6	50,9
Automatic stablizer effect as a % of the impetus	*0,66*	*0,59*	*0,57*	*0,59*	*0,58*	*0,6*	*0,6*	*0,59*	*0,58*
with interest rate response, given exchange rate									
Budget balance	-3,9	-11,6	-18	-24,6	-28,8	-30,7	-33,3	-36	-38,3
Expenditure impetus[1]	11,2	26,8	38,4	53,7	59,9	65,4	70,2	73,9	76,7
Automatic stabilizer effect	7,3	15,2	20,4	29,1	31,1	34,7	36,9	37,9	38,4
Automatic stabiliser effect as a % of the impetus	*0,65*	*0,57*	*0,53*	*0,54*	*0,52*	*0,53*	*0,53*	*0,51*	*0,5*

[1] The expenditure impetus is distributed between consumption and investment on the basis of their value in 1997-prices in the base year.

Table 2b. Civilian public consumption and investment, deviation from the baseline scenario

Per cent, constant prices	2002	2003	2004	2005-2010[1]
with unchanged interest and exchange rates	3,1	6,7	8,7	11,1
with interest rate response, given unchanged exchange rate	3	6,3	8	10,1

[1] The increase in per cent is kept unchanged through the period.

penditure on unemployment benefits as a result of lower unemployment. The magnitude of these effects will vary from one fiscal measure to another. This means that the initial fiscal impetus must be of varying strength if the effective weakening of the budget is to be the same. The magnitude of these effects will also depend on the interest rate (and exchange rate) response to the fiscal measures.

Higher expenditure on consumption and investment

In the scenario with higher public expenditure on consumption and investment, we have limited the spending increase to civilian purposes. All expenditure items for both central and local government (measured at constant prices) are increased by the same percentage rate, irrespective of whether they relate to expenditure on wages or purchases of goods and services. The calculations show that in order to increase the budget deficit by a little less than NOK 4 billion in 2002, expenditure can be increased by about NOK 11 1/2 billion measured at current prices (equivalent to about NOK 7 1/2 billion in 1997 prices, or 3.2 per cent at constant prices), as these increases in the next round contribute to generating net revenues of about NOK 7 1/2 billion through automatic stabilizers.

Table 2a shows that roughly half of higher expenditure on civilian public consumption and investment later strengthens public budgets via automatic stabilizers in the model. The slightly weaker stabilizer effects in the scenario where monetary policy aims at maintaining an unchanged exchange rate imply that there is less scope for spending increases in this scenario. Since the real economic effects of the fiscal impetus decline over time, partly as a result of higher inflation accompanied by deteriorating competitiveness and possibly a higher interest rate, the subsequent effects on public budgets will also decline somewhat over time. The percentage increase in civilian public consumption and investment (measured at constant prices) in this scenario is shown in table 2b.

Reduced income taxes

In this scenario, we have chosen to reduce income taxes. From table 3a, we see that the subsequent effects on the budget increase over time the first few years. This is because households increase consumption only gradually when income rises; after some time, however, consumption is adapted to the new income level.

The reason that the feed-back effect of reduced income taxes is substantially lower throughout the period than with higher public consumption and investment is that the latter measure has a direct impact on employment in the public sector and on public expenditure on goods and services, and this results in higher tax revenues. A corresponding direct effect on employment is not recorded when the higher budget deficit is used for tax reductions.

If the tax relief is distributed as an equal percentage increase in the size of the personal allowance (tax-free allowance) and the threshold for applying the surtax on higher incomes, table 3b shows the changes for which there is scope for income earners in tax class 1. For tax class 2, there is scope for changing the amounts by the same percentage change.

Reduced indirect taxes

There are a number of indirect taxes in the Norwegian tax system, many of which are introduced for purely fiscal reasons, but many are also based on the desire to increase market prices and thereby reduce consumption of the taxed products for health or environmental reasons, etc. Instead of either reducing all these taxes, or alternatively selecting some taxes that should be excluded from the reduction, we have chosen to concentrate the entire reduction on the value

Table 3a. Reduced income tax, deviation from the baseline scenario

Bill. NOK, current prices	2002	2003	2004	2005	2006	2007	2008	2009	2010
with unchanged interest and exchange rates									
Budget balance	-3,9	-11,6	-18,1	-24,7	-24,3	-24,6	-25,9	-27,2	-28,3
Tax reduction impetus	4,5	13,9	23,1	32,7	34,1	35,3	36,6	37,9	39,2
Automatic stabilizer effect	0,6	2,3	5	8	9,8	10,7	10,7	10,7	10,9
Automatic stabilizer effect as a % of the impetus	*0,13*	*0,16*	*0,21*	*0,25*	*0,29*	*0,3*	*0,29*	*0,28*	*0,28*
with interest rate response, given exchange rate									
Budget balance	-3,9	-11,6	-18	-24,6	-24,9	-25,6	-27,1	-28,3	-29,4
Tax reduction impetus	4,4	13,7	22,5	31,5	32,7	33,9	35,1	36,3	37,6
Automatic stabilizer effect	0,5	2,1	4,5	6,9	7,8	8,3	8	8	8,2
Automatic stabilizer effect as a % of the impetus	*0,12*	*0,15*	*0,2*	*0,22*	*0,24*	*0,25*	*0,23*	*0,22*	*0,22*

Table 3b. Tax-free allowance and threshold for surtax on higher incomes, the current amount and amount in the calculations

NOK, related to the income level in 2001	2002	2003	2004	2005 - 2010[1]
Current amount				
Tax-free allowance, tax class 1	28 000	28 000	28 000	28 000
Threshold for surtax, tax class 1	289 000	289 000	289 000	289 000
Alternative with unchanged interest and exchange rates				
Tax-free allowance, tax class 1	30 600	34 800	39 300	44 300
Threshold for surtax, tax class 1	307 100	349 100	394 200	445 100
Alt. with interest rate response, given unchanged exchange rate				
Tax-free allowance, tax class 1	30 600	34 700	38 900	43 600
Threshold for surtax, tax class 1	307 100	347 900	390 700	437 500

[1] The amounts are kept unchanged through the period.

Table 4a. Reduced VAT rate, deviation from the baseline scenario

Bill. NOK, current prices	2002	2003	2004	2005	2006	2007	2008	2009	2010
with unchanged interest and exchange rates									
Budget balance	-3,9	-11,6	-18	-24,6	-24,8	-24,4	-25,2	-26,5	-27,5
VAT reduction impetus	4,6	13,3	20,9	29,7	30,8	31,3	31,7	32,3	32,8
Automatic stabilizer effect	0,7	1,7	2,9	5,1	6	6,9	6,5	5,8	5,3
Automatic stabilizer effect as a % of the impetus	*0,14*	*0,12*	*0,14*	*0,17*	*0,19*	*0,22*	*0,21*	*0,18*	*0,16*

Table 4b. VAT rate in the calculations

Per cent	2002	2003	2004	2005-2010[1]
with unchanged interest and exchange rates	23,1	21,5	20,4	19,1

[1] The rate is kept unchanged through the period.

added tax (VAT), which after being broadened in July 2001 covers most goods and services. The VAT rate on food is reduced by half of the reduction in the full VAT rate. In this case, the subsequent effect on the budget balance - according to table 4a - is somewhat weaker than in the case with a reduction in the income tax. The explanation for this is that when indirect taxes are reduced, some of the increase in income at first accrues to enterprises through lower wage growth and only part of this will later be transferred to households. The portion that is retained by enterprises will strengthen their financial position, but in the model used will not have a direct impact on their demand.

The current VAT rate is 24 per cent. The reduced VAT rates for which there is scope in this scenario are shown in table 4b.

For the calculations involving a lower VAT rate, we have refrained from showing the scenario in which the interest rate is set in keeping with the former monetary policy regime, i.e. with a view to stabilizing the exchange rate. The reason for this is that in this scenario inflation, measured by consumer prices, is lower than in the baseline scenario the first few years, which under the former monetary policy regime implied that interest rates would be reduced. However, in this case lower inflation is due to the direct effects of lower indirect taxes on prices, and according to the monetary policy regulation Norges Bank shall not take account of these direct effects when setting interest rates.

Macroeconomic effects

Tables 5-7 provide a summary of the main macroeconomic effects of the three alternative ways of weakening the budget balance, as this follows directly from calculations using the MODAG model. It must be emphasized that the work on this model is a continuous research project where we know from experience that the model's description of the functioning of the

Norwegian economy can change over time. There are thus no absolute truths concerning the effects of such policy measures. There may also be effects that the model does not take sufficiently into account, for example because the model is quantified on the basis of macroeconomic time series and not microeconomic cross-section observations. The data may also be obtained from a period with a regulatory or policy regime that differs from what we have had the opportunity to observe or incorporate, cf. the recent revision of monetary policy.

It should also be pointed out that the measures have long-term effects that may deviate from the effects in the medium term. The long-term effects, which are often in focus when economists discuss the effects of various fiscal measures, are partly safeguarded in the model, but the model relationships indicate that they use a long time to be manifested. By studying developments up to 2010, however, we will often see the direction these effects are taking towards the end of the period.

Production and employment

As seen above from the discussion concerning the dimension of the various shifts, the effects on the level of economic activity of a given weakening of public budgets are greatest in the scenario with higher public consumption and investment (even though the effects begin to decline towards the end of the period, while the effects increase in the other two scenarios). With an unchanged interest rate, mainland GDP in the course of the Storting period expands by nearly 4 per cent more than in the baseline scenario, and the deviation from the baseline scenario then remains at this level in the following five years. With an interest rate response as under the former monetary policy regime, the increase in the period to 2005 is slightly lower and slows considerably in the following years. This is because the increase in the level of activity in this scenario is so strong that it has a clear impact on inflation and thus interest rates. A substantial portion of the increase in output directly reflects increased activity in the public sector; the impact on value added in enterprises is about one percentage point lower than for mainland Norway as a whole. The reversal in the years after 2005 is also stronger.

The situation is the reverse in the scenario with reduced income taxes. Since the level of activity in the public sector is unchanged, the increase for enterprises here is greater than for mainland Norway as a whole. Moreover, the effect rises over time. The latter applies to an even greater extent in the scenario with a lower VAT rate; here the effects in the first few years are modest, but they gradually pick up to the level in the income tax scenario.

The various time profiles for production are found again in employment measured in man-hours, but the difference in level between the expenditure shift on the one hand and the income tax reduction shift on the other is more pronounced here. This is because production in the public sector is more labour-intensive than in enterprises. Moreover, the difference between the two tax relief shifts is less in the long term, because hourly wages decline in relation to the baseline scenario in the VAT shift whereas they increase in the income tax shift. This means that enterprises tend to use more labour and fewer product inputs in the VAT shift while the reverse applies in the income tax shift.

The labour market and wages

The differences between the various scenarios are considerable for the labour market and wage determination. The strong employment growth in the expenditure scenario translates into a pronounced decline in unemployment up to 2005, when the unemployment rate is reduced by over one percentage point in relation to the baseline scenario, i.e. unemployment (measured by the Labour Force Survey) in this scenario is reduced to a little less than 2 1/2 per cent of the labour force. In the MODAG model, wages are determined by striking a balance between the level of producer real wages (adjusted for productivity) and the level of the unemployment rate. The effects of a decline in unemployment on wages are greater the lower the level of unemployment is. Since a rise in wages results in an increase in prices in the next round and thereby reduces real wages, with a subsequent need for a further rise in nominal pay, it takes a long time before wages reach their new equilibrium level. The expenditure shift thus shows that wages rise in relation to the baseline scenario through most of the period even though the decline in unemployment is reversed somewhat during the last few years. Although the increase in wage growth gradually slows, wages in 2010 are as much as 10 per cent above the level in the baseline scenario. The increase in consumer prices-real wages is about 5 1/2 per cent.

In this scenario, the effect on the labour supply is also pronounced; the labour force increases by a good 75 000 or nearly 20 000 a year, an increase that must thus come in addition to the increase in the baseline scenario. By way of comparison, the actual increase in the labour force has been less than 20 000 a year in the last few years. Higher real wages contribute to increasing the labour supply for all occupational groups. In addition, also higher demand for labour in the public sector contributes to an increase in labour supply by young people and women, a phenomenon particularly observed in the 1970s when local government employment rose sharply. It may be more difficult to achieve a corresponding effect on the labour supply today given the current high level of labour force participation rates. On the other hand, it may be the case that the need for an increase in the labour supply measured by number of persons is overesti-

mated as the model presupposes that in the public sector the increase in number of persons shadows the increase in man-hours. If the demand for labour turned out to be as strong as in this scenario, it is not inconceivable that both the shortage of labour and higher real wages will result in an increase in average working hours. A large number of employees in the public sector now work part-time and Statistics Norway's Labour Force Surveys show that many part-time workers want to increase their working hours (67 000 underemployed in the second quarter of 2001). To the extent that the higher demand for labour will be focused on persons with special qualifications, so that a substantial portion of the increase in wages benefits these groups, the immigration of workers – who often want to work full time – may also increase.

The increase in the number employed will be substantially lower in the two tax relief scenarios. This is partly because of considerably lower growth in employment measured in man-hours and partly because the entire increase takes place in the private sector where average working hours are higher than in the public sector. In the scenario with lower income taxes, the unemployment rate will fall by about two tenths, and with a VAT reduction by only one tenth in the latter part of the period. The difference between these two scenarios is slightly greater with regard to the labour supply because the income tax reduction contributes to boosting real disposable wages – and hence the labour supply – more than in the case with a reduction in indirect taxes. With an income tax reduction, wages will rise marginally, while a reduction in indirect taxes will result in a decline in wages in relation to the baseline scenario because the level of prices falls. This is because direct taxes have very small effects on wage determination according to the model, which is also in line with a number of different analyses of Norwegian data.

Inflation and interest rates

With the new inflation target for monetary policy, the discussion concerning an increased use of petroleum revenues has particularly focused on the effects on inflation and interest rates. Given the way the model describes the functioning of the Norwegian economy, the inflationary impetus of a more expansionary fiscal policy will primarily come through wages (cost push) and only to a limited extent through higher demand in product markets (demand pull). Given the substantial difference in wage developments between the scenarios, the effect on prices will therefore also differ. In the expenditure scenario, the effect on consumer prices increases gradually to a good 4 per cent in relation to the baseline scenario, which results in a maximum increase in the annual inflation rate of 0.7 percentage point. Inflation increases by an average 0.5 percentage point over the period.

How Norges Bank will respond to this increase in inflation will depend on the inflation rate in the baseline scenario. Under the earlier monetary policy regime, the objective of monetary policy was to maintain a stable krone exchange rate against European currencies, which Norges Bank interpreted to mean that over time inflation had to be close to the level in the euro area. Monetary policy in these countries has an inflation target of 0-2 per cent, but actual inflation is higher than this at the moment even though it is gradually slowing. If we assume that inflation in these countries is reduced to 2 per cent in coming years and that the baseline scenario includes a corresponding inflation rate in Norway, the scenario with an increase in spending will thus result in an annual inflation rate of about 2.5 per cent, a result that will be in line with the new monetary policy regulation's target. In that case, a tightening of monetary policy in relation to the baseline scenario will be unnecessary. However, this then presupposes that the increase in the (implicit) inflation target is looked upon as part of the policy change.

In the calculations, the exchange rate is kept unchanged so that import prices are the same in all the calculations. If higher inflation were to weaken the krone exchange rate, import prices will increase and contribute to amplifying the increase in inflation. Generally, a given increase in import prices has the same impact on consumer prices as an equivalent increase in wages. It might then be necessary for Norges Bank to raise interest rates. In the alternative including an interest rate response, we show the interest rate increase that would have been required to prevent a depreciation of the krone exchange rate, as was the case under the earlier monetary policy regime. We see that interest rates increase by up to 0.8 percentage point in relation to the baseline scenario. The expansionary fiscal policy in this scenario not only results in higher inflation, but it also leads to a steadily stronger deterioration in the current account of the balance of payments. This also contributes to an increase in interest rates.

Even though the increase in interest rates will have a tightening effect on the economy, there is little difference between the two interest rate scenarios; in the first two years, a higher interest rate actually results in slightly higher inflation. The reason for this is that, according to the model, higher interest rates initially result in an increase in house rents, which is an important component in the consumer price index. In the first few years this effect (more than) offsets the effects of lower price increases for other goods and services. This effect is not likely to prevent Norges Bank from raising the interest rate if this should be deemed necessary in order to reduce inflationary pressures. Moreover, the monetary policy regulation explicitly states that the Bank shall not take account of the direct effects of interest rate changes on con-

sumer prices, and this may refer to the effects on house rents as a result of higher interest rates. Because the effect of higher house rents on inflation is temporary inflation in this scenario is reduced to the level in the baseline scenario towards the end of the period.

Even though the exchange rate is assumed to remain stable in the scenario with an interest rate response, we cannot overlook the possibility that an increase in domestic prices will nevertheless push up import prices because higher domestic prices will reduce competitive pressures for importers. This effect is not incorporated in the model, but we saw tendencies of this during the strong period of expansion in the mid-1980s. In that event, interest rates will have to be increased more than that implied by the interest rate response scenario. However, a sharper rise in interest rates may contribute to an appreciation of the krone and this in itself will contribute to reducing inflation, an effect which thus comes in addition to the direct contractionary effects of a higher interest rate.

In the scenario with a reduction in income taxes, interest rates would also have to be increased under the earlier monetary policy regime with an exchange rate objective even though the increase is only half the increase in the increased spending scenario. Again, this is due to a steadily stronger deterioration in the current account balance in relation to the baseline scenario. With an inflation target for monetary policy, however, an increase in interest rates should be unnecessary. This at least applies with an inflation rate of 2 per cent or lower in the baseline scenario; then there will be scope for a reduction in interest rates rather than an increase in interest rates if the new inflation target of 2.5 per cent is to be achieved.

In the scenario with a lower VAT rate, the effect on consumer prices is the opposite of that of the other two scenarios, and inflation falls the first few years by about one percentage point. Towards the end of the period, however, this is reversed and in 2010 inflation is slightly higher than in the baseline scenario. The reason for this is that lower indirect taxes initially result in a direct reduction in the price level, which in isolation generates a downward moving wage-price spiral in the years immediately thereafter and that the effect on inflation of the expansionary impact of a reduction in indirect taxes does therefore not become evident until after the period of indirect tax reductions is over in 2006.

Under the earlier monetary policy regime, a slower rise in prices as a result of reduced indirect taxes would have resulted in a reduction in interest rates even though the current account balance deteriorates to some extent in this scenario as well. However, under the current regime with an inflation target this is not automatically the case since, as noted earlier, the regulation states that the direct effects of lower indirect taxes shall not be taken into account when evaluating the inflation target. In practice the entire decline in inflation of 0.6 percentage point in 2002 reflects these direct effects, so that underlying inflation is not affected. In 2003-2005, the direct effects of indirect tax reductions are even greater, but because the indirect effects via wage-price spirals begin to have an impact, the effect on underlying inflation will nevertheless be marginally negative (2-3 tenths). This means that it is not until the end of the period that underlying inflation begins to rise in relation to the baseline scenario, but still with only a modest effect within our period. Since Norges Bank is to set its key rate with a view to achieving the inflation rate two years ahead, it is thus not until the end of the period that any increase in interest rates would be relevant. If the (implicit) increase in inflation is included as part of the measure, there may also in this scenario be a slight reduction in interest rates rather than an increase early in the period.

Households and public consumption

As mentioned in the introduction, the reason for "increasing the use of petroleum revenues" must primarily be that there are measures we want to implement, possibly at the expense of other measures. In the scenario with higher spending on public consumption and investment, the purpose is to increase the scale of public services offered to the population. In this scenario, there is scope for gradually increasing public consumption by up to 9-10 per cent in relation to the baseline scenario. Because this measure results in a sharp increase in activity levels in the economy, it also contributes to a substantial increase in household consumption. With unchanged interest rates, household consumption gradually rises by a good 5 per cent. The increase is noticeably lower with an interest rate response as under the former monetary policy regime, i.e. a good 3 per cent. The reason for this is that higher interest rates primarily have an effect on the economy through household budgets and behaviour (in the calculations we have assumed that the higher return on households' insurance claims due to higher interest income, etc. does not affect their current consumption). If the interest rate change under the new monetary policy regime were to be even stronger, the effect on household consumption will be correspondingly lower. Whereas higher public consumption and investment contribute to increasing the demand for goods and services, this has no effect on the supply side of the economy in the model. For example, no attempt has been made to take into account how investment in education or roads may influence efficiency in the private sector.

In the scenario with reduced income taxes, there is little difference in private consumption between the alternatives with unchanged interest rates and with an interest rate response. The reason for this is that

the inflation effects in this scenario are small, resulting in a limited interest rate response. The increase in household consumption will be appreciably lower than in the scenario with higher expenditure on public consumption and investment as well as an unchanged interest rate, but the increases will be more in line with each other in the alternatives with an interest rate response.[2]

If the increase in the non-oil budget deficit is used to reduce the VAT rate, the effects on household consumption are substantially weaker the first few years because the expansionary effect on the economy is curbed when part of the increase in income remains with enterprises and therefore does not influence household income. However, this measure contributes to strengthening enterprises' competitiveness, a factor that gradually has expansionary effects on the economy. Towards the end of the period, the effect on household consumption is thus the same in all the scenarios shown with the exception of – possibly the least realistic – the scenario with higher public consumption and investment and an unchanged interest rate.

Competitiveness and enterprises exposed to competition

When measures that stimulate domestic demand are introduced, higher domestic demand will to varying degrees be allocated towards different types of enterprises. In order to satisfy higher demand, enterprises will increase their demand for labour. In the spending increase scenario, a substantial increase in employment in the public sector will also be required. The increased need for labour may either be covered by replacing labour with other factors of production (resulting in higher labour productivity), by recruiting the unemployed or by increasing labour force participation rates. The mechanism behind these adjustments is that the shortage of labour pushes up (real) wages. This increase in wages affects virtually all enterprises, but for enterprises that are sheltered from foreign competition the higher wage costs will largely be passed on in the form of higher prices without demand being reduced correspondingly. On the other hand, for enterprises exposed to international competition – where manufacturing firms account for the largest group – price increases will largely translate into reduced demand in that demand shifts towards foreign competitors that have not experienced the same increase in prices and costs. The result is a shift in the industry structure, from activities that are exposed to competition to sheltered activities.

We see this effect most clearly in the scenario with higher public consumption and investment since the impact on unemployment and wages is strongest here. Admittedly, value added in manufacturing increases slightly the first few years in this scenario, but this is due to the strong direct effects of higher domestic demand. As wages gradually increase in this scenario, competitiveness deteriorates and output starts to fall. At the end of the period, output shows a decline of a good 3 per cent in relation to the baseline scenario.

We also find a clear shift in the industry structure in the scenario with reduced income taxes. Manufacturing production increases throughout the period, but substantially less than in other industries (and thereby less than for all enterprises). Moreover, the upswing is reversed towards the end of the period, reflecting the gradually more important negative effects of higher wages on competitiveness. In the scenario with reduced VAT rates, however, the shift effect is almost invisible until the very end of the period. The reason for this is that the increase in domestic demand – particularly in the first part of the period – is lower in this scenario than in the other two and that wages in the first few years decline as a result of the reduction in the VAT rate, a factor that strengthens manufacturing industry's competitiveness. Gradually, as the decline in wages is reversed and domestic demand continues to expand, the shift effect is also evident here. Manufacturing production at the end of the period is nevertheless higher than in the baseline scenario.

The differing developments for manufacturing industry and other mainland enterprises are also found in the effects on the operating surplus of the two sectors. With higher public expenditure, the operating surplus in other enterprises improves markedly, while the operating surplus for manufacturing industry deteriorates. In the income tax scenario, the increase for other mainland enterprises is smaller, while the effect for manufacturing industry is positive in the first part of the period. Towards the end of the period, however, manufacturing industry's operating surplus deteriorates in relation to the baseline scenario. In the VAT reduction scenario, on the other hand, the operating surplus for manufacturing industry increases throughout the period in relation to the baseline scenario, even though the effect is reversed towards the end of the period. The increase for manufacturing industry is gradually greater than for mainland enterprises, measured in NOK; the difference is even greater measured as a percentage increase since the operating results in manufacturing industry are initially smaller than in other mainland enterprises as a whole.

Balance of payments and financial balances

The calculations show that using the weakening of the budget balance in the coming Storting period to in-

2 The reason for the slightly negative effect on public consumption in the income tax reduction scenario is that an increase in the level of activity contributes to boosting demand for some fee-financed public services, and by definition this contributes to reducing public consumption when public expenditure on wages and purchases of goods and services (measured at constant prices) is held constant.

crease public consumption and investment will be somewhat more costly the following five years than to reduce income taxes or VAT. With an unchanged interest rate, the cumulated difference in budget balance between these alternatives amounts to about NOK 30 billion, or NOK 5 billion a year in average for the period 2006 - 2010. Part of the difference reflects a higher price level in the first scenario.

When the budget balance is to weaken through higher public consumption and investment, the balance of payments deteriorates by virtually the same amount. In the first few years, the "leakage" is a little smaller because it takes time before deteriorating competitiveness for enterprises has an impact on the balance of payments. The deterioration in the balance of payments is appreciably smaller with an income tax reduction and substantially smaller with a cut in the VAT rate. In this case, the short-term effect is also considerably smaller than the medium-term effect because domestic demand only picks up gradually in this scenario.

The fact that higher spending on public consumption and investment has such a negative impact on the balance of payments and enterprises' financial situation was an important argument when the Norwegian "Solidarity Alternative" was established in its time. The idea was that moderate income settlements would prevent real wages from increasing as sharply as in our calculations. This would allow us to achieve both higher production of welfare services and lower unemployment without being accompanied by a deterioration in the balance of payments and enterprises' financial situation. In one respect this problem is no longer an issue with the new fiscal policy guidelines. Some contraction of the exposed sector is now a desired consequence; without it Norway would not be able to accelerate the use of petroleum revenues.

The combined scenario

The three scenarios discussed above are extreme in the sense that each of them uses the scope for fiscal policy expansion solely for one measure. First, there are probably not many political parties that will have such one-sided policy priorities. Second, Norwegian politics consists of compromises between parties, a factor that will increase the likelihood that various measures are combined. In order to shed light on the effects of a combined policy package, we have computed the effects of a fourth scenario, composed of equal parts of each of the first three scenarios. The macroeconomic effects are shown in table 8. Here, we will confine our comments to two aspects:

As long as fiscal policy expansion is taking place (i.e. in the years 2002-2005), mainland GDP growth with an unchanged interest rate will be about 1/2 per cent higher than in the baseline scenario. If this policy is continued in the following years, trend growth in mainland GDP will be higher than the 2 1/4 per cent assumed so far.

Inflation will be lower than in the baseline scenario the first few years, but higher in subsequent years. Measured excluding the direct effects of indirect taxes, it may also be marginally higher in the first few years. On the other hand, if the (implicit) increase in the inflation target is to be seen as part of the measure, there will be no need to increase interest rates in relation to the baseline scenario, even if import prices also rise somewhat. In this sense, the new fiscal and monetary policy guidelines appear to be well adapted to each other.

Table 5. Increased expenditure on government consumption and investment, deviation from the baseline scenario

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Gov. consumption and investment (bill. 1997-NOK)									
with unchanged interest and exchange rates	7.7	17.1	22.5	29.2	29.3	29.4	29.6	29.8	30.1
with interest rate respons, given exchange rate	7.5	16.1	20.7	26.5	26.7	26.8	27.1	27.3	27.6
Government consumption (pct)									
with unchanged interest and exchange rates	2.7	6.0	7.8	9.8	9.8	9.8	9.8	9.8	9.9
with interest rate respons, given exchange rate	2.7	5.7	7.1	8.9	8.9	8.9	9.0	9.0	9.1
Private consumption (pct)									
with unchanged interest and exchange rates	0.8	1.6	2.5	3.8	4.4	5.1	5.3	5.4	5.4
with interest rate respons, given exchange rate	0.7	1.3	1.9	2.9	3.2	3.5	3.6	3.6	3.6
GDP mainland Norway (pct)									
with unchanged interest and exchange rates	1.0	2.1	2.9	3.9	4.1	4.2	4.2	4.0	3.9
with interest rate respons, given exchange rate	0.9	1.9	2.5	3.3	3.3	3.3	3.1	3.0	2.8
Gross product in companies (pct)									
with unchanged interest and exchange rates	0.6	1.3	1.9	2.7	2.9	3.1	3.0	2.9	2.7
with interest rate respons, given exchange rate	0.6	1.2	1.5	2.1	2.1	2.1	2.0	1.8	1.6
Gross product in manufacturing (pct)									
with unchanged interest and exchange rates	0.3	0.4	0.3	0.1	-0.6	-1.2	-1.9	-2.6	-3.1
with interest rate respons, given exchange rate	0.3	0.4	0.2	-0.1	-0.8	-1.4	-2.0	-2.6	-3.1
Man-hours worked (pct)									
with unchanged interest and exchange rates	0.9	1.9	2.6	3.4	3.5	3.5	3.5	3.4	3.4
with interest rate respons, given exchange rate	0.9	1.8	2.3	3.0	3.0	3.0	2.9	2.8	2.7
Unemployment rate (percentage points)									
with unchanged interest and exchange rates	-0.6	-1.0	-1.0	-1.2	-1.0	-0.9	-0.9	-0.8	-0.8
with interest rate respons, given exchange rate	-0.6	-0.9	-0.9	-1.1	-0.8	-0.8	-0.7	-0.7	-0.6
Labour force (1000 persons)									
with unchanged interest and exchange rates	9.7	29.6	48.1	64.5	73.6	76.0	77.2	77.5	77.9
with interest rate respons, given exchange rate	9.4	28.1	44.1	57.4	64.2	65.0	65.2	64.6	64.4
Wage per hour (pct)									
with unchanged interest and exchange rates	0.9	2.4	4.1	6.1	7.5	8.6	9.4	9.9	10.1
with interest rate respons, given exchange rate	0.8	2.3	3.8	5.5	6.6	7.5	8.0	8.3	8.3
Consumer real wage per hour (pct)									
with unchanged interest and exchange rates	0.7	1.9	2.9	4.2	4.9	5.3	5.5	5.6	5.4
with interest rate respons, given exchange rate	0.7	1.7	2.5	3.5	3.9	4.1	4.2	4.1	4.0
Consumer prices (pct)									
with unchanged interest and exchange rates	0.1	0.6	1.1	1.8	2.5	3.2	3.7	4.1	4.4
with interest rate respons, given exchange rate	0.2	0.6	1.2	1.9	2.7	3.3	3.7	4.0	4.2
Consumer price inflation (percentage points)									
with unchanged interest and exchange rates	0.1	0.4	0.6	0.7	0.7	0.6	0.5	0.4	0.3
with interest rate respons, given exchange rate	0.2	0.5	0.6	0.7	0.7	0.6	0.5	0.3	0.1
3 mth interest rate (percentage points)									
with unchanged interest and exchange rates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
with interest rate respons, given exchange rate	0.2	0.3	0.5	0.7	0.8	0.8	0.8	0.7	0.6
Operating surplus manufacturing (bill. NOK)									
with unchanged interest and exchange rates	0.0	-0.3	-1.0	-1.8	-2.9	-3.9	-4.9	-5.8	-6.6
with interest rate respons, given exchange rate	0.0	-0.4	-1.1	-1.9	-2.9	-3.8	-4.7	-5.5	-6.0
Operating surplus other companies (bill. NOK)									
with unchanged interest and exchange rates	0.5	0.5	1.2	2.6	4.3	7.0	9.6	12.3	15.0
with interest rate respons, given exchange rate	0.6	0.9	2.0	4.1	6.2	9.0	11.5	13.8	15.9
Current account (bill. NOK)									
with unchanged interest and exchange rates	-3.9	-9.0	-14.3	-22.0	-26.1	-30.7	-33.8	-36.0	-37.3
with interest rate respons, given exchange rate	-3.7	-8.0	-12.0	-17.9	-20.3	-23.3	-25.1	-26.3	-27.2
Government budget balance (bill. NOK)									
with unchanged interest and exchange rates	-3.9	-11.6	-18.0	-24.6	-28.2	-29.1	-31.3	-33.9	-36.4
with interest rate respons, given exchange rate	-3.9	-11.6	-18.0	-24.6	-28.8	-30.7	-33.3	-36.0	-38.3
Households' net financial investments (bill. NOK)									
with unchanged interest and exchange rates	1.7	7.4	11.7	14.4	16.2	14.2	14.1	14.3	14.6
with interest rate respons, given exchange rate	1.3	6.6	10.8	13.4	16.5	16.5	18.1	19.7	21.0

Table 6. Reduced income taxes, deviation from the baseline scenario

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Taxfree allowances/threshold for surtax (pct)									
with unchanged interest and exchange rates	6.3	20.8	36.4	54.0	54.0	54.0	54.0	54.0	54.0
with interest rate respons, given exchange rate	6.2	20.4	35.2	51.4	51.4	51.4	51.4	51.4	51.4
Government consumption (pct)									
with unchanged interest and exchange rates	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4
with interest rate respons, given exchange rate	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3
Private consumption (pct)									
with unchanged interest and exchange rates	0.2	0.9	1.8	2.9	3.4	3.7	3.8	3.9	4.1
with interest rate respons, given exchange rate	0.2	0.8	1.7	2.6	3.0	3.1	3.1	3.3	3.4
GDP mainland Norway (pct)									
with unchanged interest and exchange rates	0.1	0.4	0.8	1.3	1.6	1.8	1.9	1.9	2.0
with interest rate respons, given exchange rate	0.1	0.4	0.8	1.2	1.4	1.5	1.5	1.6	1.6
Gross product in companies (pct)									
with unchanged interest and exchange rates	0.1	0.5	1.0	1.6	2.0	2.2	2.3	2.3	2.4
with interest rate respons, given exchange rate	0.1	0.4	0.9	1.4	1.7	1.8	1.9	1.9	2.0
Gross product in manufacturing (pct)									
with unchanged interest and exchange rates	0.0	0.2	0.4	0.6	0.8	0.8	0.8	0.7	0.6
with interest rate respons, given exchange rate	0.0	0.2	0.4	0.5	0.6	0.6	0.6	0.5	0.5
Man-hours worked (pct)									
with unchanged interest and exchange rates	0.0	0.1	0.3	0.6	0.8	1.0	1.0	1.1	1.1
with interest rate respons, given exchange rate	0.0	0.1	0.3	0.5	0.7	0.8	0.9	0.9	0.9
Unemployment rate (percentage points)									
with unchanged interest and exchange rates	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
with interest rate respons, given exchange rate	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Labour force (1000 persons)									
with unchanged interest and exchange rates	0.1	1.5	5.0	9.8	15.3	18.6	20.6	21.6	22.3
with interest rate respons, given exchange rate	0.1	1.4	4.7	9.1	13.8	16.3	17.6	18.2	18.8
Wage per hour (pct)									
with unchanged interest and exchange rates	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.5
with interest rate respons, given exchange rate	0.1	0.2	0.3	0.5	0.7	0.9	1.0	1.2	1.3
Consumer real wage per hour (pct)									
with unchanged interest and exchange rates	0.1	0.2	0.3	0.5	0.6	0.7	0.7	0.8	0.8
with interest rate respons, given exchange rate	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.5	0.5
Consumer prices (pct)									
with unchanged interest and exchange rates	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.6	0.7
with interest rate respons, given exchange rate	0.0	0.0	0.0	0.1	0.3	0.5	0.6	0.7	0.8
Consumer price inflation (percentage points)									
with unchanged interest and exchange rates	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1
with interest rate respons, given exchange rate	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.0
3 mth interest rate (percentage points)									
with unchanged interest and exchange rates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
with interest rate respons, given exchange rate	0.0	0.1	0.2	0.3	0.4	0.3	0.3	0.3	0.2
Operating surplus manufacturing (bill. NOK)									
with unchanged interest and exchange rates	0.0	0.1	0.3	0.4	0.4	0.3	0.1	-0.1	-0.2
with interest rate respons, given exchange rate	0.0	0.1	0.2	0.3	0.2	0.1	-0.1	-0.2	-0.3
Operating surplus other companies (bill. NOK)									
with unchanged interest and exchange rates	0.1	0.7	1.8	3.0	4.0	5.0	5.9	7.2	8.5
with interest rate respons, given exchange rate	0.2	0.8	2.1	3.5	4.9	5.9	6.9	8.0	9.1
Current account (bill. NOK)									
with unchanged interest and exchange rates	-0.7	-2.8	-6.4	-10.5	-13.2	-14.8	-15.5	-16.5	-17.5
with interest rate respons, given exchange rate	-0.7	-2.7	-5.9	-9.3	-11.3	-12.3	-12.7	-13.6	-14.4
Government budget balance (bill. NOK)									
with unchanged interest and exchange rates	-3.9	-11.6	-18.1	-24.7	-24.3	-24.6	-25.9	-27.2	-28.3
with interest rate respons, given exchange rate	-3.9	-11.6	-18.0	-24.6	-24.9	-25.6	-27.1	-28.3	-29.4
Households' net financial investments (bill. NOK)									
with unchanged interest and exchange rates	3.4	9.5	13.1	16.4	13.5	12.1	12.4	11.8	11.3
with interest rate respons, given exchange rate	3.3	9.2	12.5	15.8	13.9	13.5	14.5	14.4	14.1

Table 7. Reduced VAT rate, deviation from the baseline scenario

	2002	2003	2004	2005	2006	2007	2008	2009	2010
VAT rate (percentage points) with unchanged interest and exchange rates	-0.9	-2.5	-3.6	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9
Government consumption (pct) with unchanged interest and exchange rates	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2
Private consumption (pct) with unchanged interest and exchange rates	0.2	0.4	0.4	0.8	1.1	1.6	2.2	2.7	3.2
GDP mainland Norway (pct) with unchanged interest and exchange rates	0.1	0.2	0.2	0.4	0.6	0.9	1.2	1.4	1.7
Gross product in companies (pct) with unchanged interest and exchange rates	0.1	0.2	0.2	0.5	0.7	1.0	1.4	1.7	2.0
Gross product in manufacturing (pct) with unchanged interest and exchange rates	0.0	0.1	0.2	0.4	0.7	1.0	1.2	1.3	1.3
Man-hours worked (pct) with unchanged interest and exchange rates	0.0	0.0	0.0	0.1	0.2	0.3	0.5	0.6	0.7
Unemployment rate (percentage points) with unchanged interest and exchange rates	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Labour force (1000 persons) with unchanged interest and exchange rates	-0.1	0.2	1.1	2.4	4.6	6.5	8.9	11.5	13.8
Wage per hour (pct) with unchanged interest and exchange rates	0.0	-0.3	-0.8	-1.3	-1.7	-1.5	-1.2	-0.8	-0.3
Consumer real wage per hour (pct) with unchanged interest and exchange rates	0.6	1.3	1.8	2.5	2.4	2.6	3.0	3.3	3.6
Consumer prices (pct) with unchanged interest and exchange rates	-0.6	-1.6	-2.6	-3.7	-4.0	-4.1	-4.0	-3.9	-3.7
Consumer price inflation (percentage points) with unchanged interest and exchange rates	-0.6	-1.1	-1.0	-1.1	-0.3	-0.1	0.0	0.1	0.2
Operating surplus manufacturing (bill. NOK) with unchanged interest and exchange rates	0.2	0.5	0.9	1.5	1.9	2.1	2.2	2.2	2.1
Operating surplus other companies (bill. NOK) with unchanged interest and exchange rates	0.6	1.4	1.7	2.0	1.4	1.0	1.0	1.4	2.3
Current account (bill. NOK) with unchanged interest and exchange rates	-0.7	-1.3	-1.4	-2.8	-3.8	-6.2	-9.2	-11.7	-14.2
Government budget balance (bill. NOK) with unchanged interest and exchange rates	-3.9	-11.6	-18.0	-24.6	-24.8	-24.4	-25.2	-26.5	-27.5
Households' net financial investments (bill. NOK) with unchanged interest and exchange rates	2.8	8.5	13.2	16.9	15.7	13.1	11.0	9.4	7.8

Table 8. Combined scenario, deviation from the baseline

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Gov. consumption and investment (bill. 1997-NOK)									
with unchanged interest and exchange rates	2.5	5.6	7.4	9.6	9.6	9.6	9.5	9.5	9.5
Taxfree allowances/threshold for surtax (pct)									
with unchanged interest and exchange rates	2.0	6.3	10.5	14.8	14.8	14.8	14.8	14.8	14.8
VAT rate (percentage points)									
with unchanged interest and exchange rates	-0.3	-0.8	-1.2	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6
Government consumption (pct)									
with unchanged interest and exchange rates	0.9	2.0	2.5	3.2	3.2	3.2	3.1	3.1	3.1
Private consumption (pct)									
with unchanged interest and exchange rates	0.4	0.9	1.6	2.5	2.9	3.4	3.7	3.9	4.2
GDP mainland Norway (pct)									
with unchanged interest and exchange rates	0.4	0.9	1.3	1.9	2.1	2.3	2.4	2.5	2.5
Gross product in companies (pct)									
with unchanged interest and exchange rates	0.3	0.7	1.0	1.6	1.8	2.1	2.2	2.3	2.4
Gross product in manufacturing (pct)									
with unchanged interest and exchange rates	0.1	0.2	0.3	0.4	0.3	0.2	0.1	-0.1	-0.3
Man-hours worked (pct)									
with unchanged interest and exchange rates	0.3	0.7	1.0	1.4	1.5	1.6	1.7	1.7	1.7
Unemployment rate (percentage points)									
with unchanged interest and exchange rates	-0.2	-0.4	-0.4	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4
Labour force (1000 persons)									
with unchanged interest and exchange rates	3.2	10.4	18.1	25.8	31.4	34.0	35.8	37.1	38.2
Wage per hour (pct)									
with unchanged interest and exchange rates	0.3	0.7	1.1	1.6	1.9	2.4	2.8	3.2	3.5
Consumer real wage per hour (pct)									
with unchanged interest and exchange rates	0.4	1.1	1.6	2.3	2.4	2.7	2.9	3.0	3.1
Consumer prices (pct)									
with unchanged interest and exchange rates	-0.1	-0.4	-0.5	-0.7	-0.5	-0.3	-0.1	0.2	0.3
Consumer price inflation (percentage points)									
with unchanged interest and exchange rates	-0.1	-0.2	-0.2	-0.2	0.2	0.2	0.2	0.2	0.2
Operating surplus manufacturing (bill. NOK)									
with unchanged interest and exchange rates	0.1	0.1	0.1	0.1	-0.1	-0.3	-0.7	-1.0	-1.4
Operating surplus other companies (bill. NOK)									
with unchanged interest and exchange rates	0.4	1.0	1.7	2.7	3.4	4.3	5.4	6.8	8.3
Current account (bill. NOK)									
with unchanged interest and exchange rates	-1.7	-4.3	-7.3	-11.5	-14.0	-16.7	-18.9	-20.8	-22.4
Government budget balance (bill. NOK)									
with unchanged interest and exchange rates	-3.9	-11.6	-18.0	-24.6	-25.9	-26.3	-27.6	-29.2	-30.7
Households' net financial investments (bill. NOK)									
with unchanged interest and exchange rates	2.6	8.4	12.5	15.7	14.9	13.1	12.4	11.8	11.1