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Macroeconomic
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in the Medium Term:
Alternative Medium-Term
Scenarios

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Stephan Thurman**

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**MACROECONOMIC PERFORMANCE AND FISCAL POLICY ADJUSTMENTS
IN THE MEDIUM TERM:
ALTERNATIVE MEDIUM-TERM SCENARIOS**

**by
Pete Richardson, Claude Giorno and Stephan Thurman**

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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**MACROECONOMIC PERFORMANCE AND FISCAL POLICY ADJUSTMENTS
IN THE MEDIUM TERM:
ALTERNATIVE MEDIUM-TERM SCENARIOS**

This paper describes a number of alternative medium-term scenarios for the OECD economies and related policy stimulations using the OECD world model INTERLINK. The starting point of the analysis is a reference scenario to 2000 featuring a general recovery of the OECD economies to steady state non-inflationary growth. The paper goes on to examine the implications of slower growth for the paths of fiscal balance and public debt, and the changes in policy mix which might be necessary to restore announced fiscal policy objectives whilst limiting damage to the wider range of policy objectives. A further section goes on to examine the simulated effects of changes of fiscal and monetary policy stance on output, employment, inflation and public debt over the medium term.

Ce document décrit, pour les pays de l'OCDE, un certain nombre de scénarios possibles à moyen terme, et des simulations de politique économique correspondantes en utilisant le modèle mondial de l'OCDE : INTERLINK. Le point de départ de cette analyse est basé sur un scénario de référence à l'horizon de l'an 2000, caractérisé par un redressement général des économies de l'OCDE vers un sentier d'une croissance non-inflationniste équilibré. Le document examine ensuite les implications d'une croissance moindre sur le solde budgétaire et la dette publique, ainsi que les changements de "policy mix" qui pourraient s'avérer nécessaires pour rétablir les objectifs de politique budgétaire annoncés, tout en limitant les dommages pour l'ensemble des objectifs de politique économique. Une autre section présente les effets simulés des changements dans les orientations de politiques fiscale et monétaire, sur la production, l'emploi, l'inflation et la dette publique dans une perspective de moyen-terme.

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**MACROECONOMIC PERFORMANCE AND FISCAL POLICY ADJUSTMENTS
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ALTERNATIVE MEDIUM-TERM SCENARIOS**

Pete RICHARDSON, Claude GIORNO and Stephan THURMAN¹

I. Introduction

This paper describes a number of simulations contributing to recent OECD assessments of fiscal policy developments and economic performance, in particular the work described by Leibfritz et al (1994). These are based on the use of the OECD world model INTERLINK in conjunction with a medium-term reference scenario going to the year 2000². The main focus of interest is in the interaction of macroeconomic performance with fiscal and monetary policy objectives and the choice of macroeconomic policy mix.

Two main issues are considered in the analysis. First, the implications of lower-than-projected medium-term growth are examined, in particular those for the paths of fiscal deficits and unemployment. Since the effects of lower growth are potentially large and adverse for both objectives, it is necessary to consider what further changes in policy mix might be needed if fiscal policy objectives are to be achieved without adverse effects on growth and employment. The second part of the analysis goes on to examine the implications of a more expansionary (less restrictive) fiscal and/or monetary stance for output, employment, inflation and public debt over the medium term.

The analysis combines information from simulations with the INTERLINK model with a range of normative judgement about the timing and magnitude of policy responses and financial market reactions. The precise numbers are, therefore, dependant on specific model properties and normative inputs, though in most respects the qualitative results are broadly consistent with a range of comparable international models subjected to the same underlying policy assumptions and shocks.

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1. The authors are respectively Head of Division and Principal Administrators in the Macroeconomic Analysis and Systems Management Division of the OECD Economics Department. Special thanks go to Marie-Christine Bonnefous, Jan Davies-Montel, Doug Paterson and Sylvie Rauffet for their technical support and contributions in the production of the study. Thanks also go to Michael Feiner, Willie Leibfritz, Deborah Roseveare and Paul Van Den Noord for comments and suggestions on earlier drafts and to Andrew Gurney, Jens Hoj and Dave Turner for their contributions to the reference scenario.
 2. For recent reference to the INTERLINK model, see Richardson (1988), Thurman et al (1994) and Turner et al (1993)

II. The medium-term reference scenario

The starting point of the analysis is a reference scenario featuring a general recovery of the OECD economies to steady state non-inflationary growth. This comprises a consistent set of projections for each OECD country to 2000 constructed as an extension of the OECD's recent short-term projections [Economic Outlook No.55]. An important feature is that for the most part it embodies a steady move towards currently-stated medium-term fiscal and monetary policy goals. Needless to say, the reference scenario is not a forecast but one of many possible projections. Its main features are summarised below in Figure 1 and in the Annex.

In common with recent OECD short-term assessments, output and activity are projected to recover steadily through 1995. Thereafter, OECD real GDP grows by an average 2 3/4 to 3 per cent per annum between 1996 and 2000, with rates of growth of 2½, 3 and 3¾ per cent per annum for the United States, Europe and Japan respectively. An important factor to both near-term recovery and medium-term growth is growth in private investment, at an average 5 to 6 per cent per annum. Growth in real public expenditures is assumed to stay below 1 per cent, reflecting the programmes of fiscal consolidation currently in place in the majority of member countries and real growth in private consumption, at an average 2 ½ to 2 ¾ per cent per annum, remains below that of GDP.

With labour productivity assumed to grow at a rate broadly consistent with average growth in the last 10 to 15 years, area-wide employment grows by an average 1 per cent per annum and the projected reduction in unemployment is relatively modest, with unemployment remaining relatively high at around 7 ½ per cent for the total OECD and 10 ½ per cent in OECD Europe. Inflation pressures remain weak, and average OECD inflation falls moderately to around 2 per cent by 2000.

Given sustained medium-term growth and active programmes of fiscal consolidation, the ratio of general government net borrowing to GDP falls to below 1½ percentage points by the year 2000 and the average ratio of net government debt to GDP stabilises from 1996 onwards. Overall, the combination of fiscal consolidation and low inflation is sufficient in most countries to be consistent with a general reduction in nominal and, to a lesser extent, in real short- and long term interest rates.

A central feature of the reference scenario is that it combines existing broad policy settings with a return to relatively stable non-inflationary growth in a way which is, for the most part, compatible with a continuing process of fiscal consolidation on an area-wide basis. Thus government sector deficits are projected to fall over the medium term and, with only a few exceptions, net debt positions stabilise or improve over time.

Although the range of uncertainties attached to such a scenario is quite considerable, the focus here is on those alternative developments which might imply significantly different outcomes for growth and employment and the process of fiscal consolidation, and therefore have significant implications for the conduct of fiscal and monetary policies. The analyses considered in the following sections concentrate on two sets of questions:

- What are the implications of different and, more importantly, slower rates of OECD growth for the paths of government sector debt and unemployment, and what further policy adjustments might be required?

- Given the limited reductions in unemployment embodied in the reference scenario what impact might more expansionary (less restrictive) fiscal and/or monetary policies have on the area-wide unemployment, and what are the implications for inflation and fiscal objectives?

For general reference purposes, the following table gives a summary description for each of the individual Scenarios considered and their respective assumptions.

III. Alternative medium-term growth paths

The rate of economic growth is key to the projected set of fiscal developments since it affects the levels and growth of tax revenues and subsidies, the corresponding levels of social transfers, the associated debt financing requirements and interest payments. Although significantly different patterns of short- and medium-term recovery and growth will have different implications for both the timing and extent of fiscal consolidation over the medium term, it is those which embody changes in trend growth rather than different configurations of the short-term cycle which are likely to be of most importance. Specific short-term events may be important for the apparent success or failure of policies at any given time, but unless they also have sustained effects on growth and inflation, they are less likely to have an impact on policy targets considered over a run of years. For this reason the alternative Scenarios considered in this section focus on the consequences of faster or slower average rates of economic growth over the medium term for the profile of fiscal developments, the consequent fiscal policy requirements and monetary conditions and the implications for the path of macroeconomic adjustment.

The implications of slower growth

The case of slower trend growth is probably the most important to consider since it may be seen as posing a greater and more immediate risk to current policies and call for more urgent policy adjustment³. Analytically it is useful to consider the consequences of slower growth in a number of separate stages.

Firstly, an overall illustration of the possible scale and profile of fiscal slippage associated with less favourable activity developments is discussed. The next stage is to consider how, and at what pace, such slippage might be made good by further fiscal adjustment, and what associated monetary conditions might be needed to avoid significant damage to other medium-term policy objectives.

Slower growth without policy adjustment

The main features of the initial slow growth case are summarised in Scenario 1.A. Here, OECD GDP growth is assumed to be lower by a constant 1/2 per cent per annum relative to the medium-term baseline throughout the projection period⁴. The source of slower growth is assumed to be associated with

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3. A higher growth scenario is likely to be more or less symmetric with lower growth cases made under the same broad assumptions. As reported later in the section under Scenario 1.F, this is indeed the case.
 4. The slowdown in growth is phased in gradually between 1994 and 1996. The rates of GDP growth are reduced by 0.1 and 0.3 per cent per annum in 1994 and 1995 respectively and 1/2 per cent thereafter.

Alternative medium-term scenarios

Scenario	Fiscal assumptions	Monetary conditions	Scenario:
Slower Growth --1/2 per cent per annum slower growth in OECD real GDP	unchanged real expenditures and tax rates	unchanged nominal interest rates	1.A
	expenditures adjusted to meet reference scenario deficit target	unchanged real interest rates	1.B
	taxes adjusted to meet reference scenario deficit targets	lower real interest rates	1.C
		unchanged real interest rates	1.D
		lower real interest rates	1.E
Faster Growth --1/2 per cent per annum faster growth in OECD real GDP	unchanged real expenditures and tax rates	unchanged nominal interest rates	1.F
Fiscal stimulus	higher real expenditures --1 per cent of OECD GDP	unchanged real interest rates	2.A
		unchanged nominal interest rates	2.B
		unchanged monetary aggregates	2.C
Monetary stimulus	unchanged real expenditures and tax rates	1 per cent reduction in real short-term rates	3.A
		1 per cent reduction in nominal short-term rates	3.B

weaker private sector confidence. Although this weakness is reflected initially in slower consumption growth, the normal multiplier-accelerator process ensures that it is quickly spread to other key elements of private sector expenditure, notably business investment. Consequently output and employment are reduced and unemployment increases relative to baseline. Increases in labour market slack and further reductions in output below potential in turn put downward pressure on wage and price inflation. For illustrative purposes, Scenario 1.A assumes the paths of interest rates to be unchanged in nominal terms compared with the baseline. Implicitly, therefore, there is a gradual rise in real interest rates over the period as the rate of inflation declines, which is a further contributory factor to slower growth⁵.

The corresponding fiscal response is wholly passive, with real public-sector spending and implicit tax rates assumed to be unchanged from baseline. The primary source of fiscal slippage is therefore reflected in lower revenues from indirect and direct taxes and social contributions -- as nominal expenditures and nominal incomes fall relative to baseline -- and higher social transfer payments as the degree of unemployment and slack in the economy tend to rise. Government interest payments also rise as the deterioration in the fiscal balance feeds through cumulatively into the stock of interest-bearing debt.

The overall results illustrate a number of important points. For the fiscal balance and debt positions, it is clear that slower growth entails a large cumulative deterioration in the overall fiscal projection. Thus revenues fall and transfer payments rise substantially as the gap between the level of economic activity and that in the baseline widens steadily. Although there are differences in composition across countries, the average movements for the major seven economies and OECD Europe are broadly similar. As a share of GDP the fiscal balance for the total OECD deteriorates relative to baseline by 2 percentage points in 2000. Thus budget deficits remain more or less unchanged relative to their current levels and the ratio of net debt, instead of stabilising as in the reference scenario at around 45 per cent of GDP, rises further to around 55 per cent of GDP by 2000.

Because output and demand are assumed to be permanently lower than in the baseline, inflation decelerates quite rapidly, to less than 1/2 per cent per annum by 2000, compared with 2 per cent per annum in the reference scenario. The rate of unemployment is about 1 per cent higher than baseline for both Europe and the total OECD implying little or no improvement in the employment situation to the end of the decade. Thus average unemployment rates stay high, at around 11½ per cent for Europe and 8½ per cent for the total OECD.

Thus on the basis of no further policy adjustment, a scenario of slower growth for the area would present an important policy dilemma. Firstly major fiscal adjustments would be necessary to bring deficits more clearly under control, back towards the original baseline path. At the same time, since concerted fiscal contraction would, by itself, almost certainly imply some further short-term contraction in demand, there might be a further risk to employment. An important question is, therefore, to what extent a further change in fiscal and monetary policy mix might bring about a more appropriate set of fiscal adjustments with lesser impact on an already deteriorating employment situation.

5. A more appropriate policy response to such an exogenous shock would be to reduce or at least maintain real short-term interest rates, whilst a steady deterioration in government sector balances might be expected to put some upward pressure on real long-term rates, widening the yield gap. However by construction, neither of these assumptions have any significant effect on the fiscal out-turns in this particular Scenario given the imposed nature of the slow down in growth.

Slower growth with alternative policy reaction

Fiscal adjustment through reduced current expenditures

The scope and possible consequences for further fiscal adjustment through expenditure reductions are explored in two further Scenarios, 1.B and 1.C. In both of these the same ex-ante shock to GDP growth is assumed, but governments are assumed to make reductions in current spending from 1996 onwards so as to bring general government deficits back smoothly towards the original reference scenario levels. The fiscal adjustments are assumed to be progressive and the corresponding government net-lending positions develop broadly as follows.

Total OECD general government net lending				
	per cent of nominal GDP			
	(i)	(ii)	(iii)	(iv) = (iii)-(ii)
	Reference case	Slow growth Scenario 1.A	Scenarios 1.B and 1.C	Fiscal adjustment
1995	-3.3	-3.5	-3.5	0.0
1996	-2.7	-3.1	-3.0	0.1
1997	-2.3	-3.0	-2.7	0.3
1998	-2.0	-3.1	-2.4	0.7
1999	-1.7	-3.3	-2.0	1.3
2000	-1.5	-3.6	-1.5	2.1

The key difference between these fiscal adjustment scenarios concerns the choice of interest-rate assumptions. In Scenario 1.B, both short and long-term interest rates are assumed to be unchanged in real terms relative to the initial slow-growth scenario case⁶. In other words, any further dis-inflationary effects induced by the fiscal adjustment are assumed to be reflected solely in lower nominal interest rates. Scenario 1.C goes further, with both real and nominal interest rates assumed to be lower than in the original slow growth scenario (and in Scenario 1.B). This would be consistent with a combination of monetary relaxation in the face of the potential contraction in demand -- leading to lower short-term real rates -- and a favourable market reaction to the determined efforts to bring deficits under control, permitting changes in short-term rates to be passed on fully into long-term real rates. In the absence of clear empirical evidence on the likely size or timing of such reactions, there is a fairly arbitrary judgmental element involved in the choice of such interest rate adjustments.

For illustrative purposes, Scenario 1.C assumes reductions in real interest rates which are constant, occur from 1996 onwards -- implying an important forward-looking element -- which are broadly consistent

6. In keeping with the broad assumptions about the monetary regime within Europe, real rates are assumed unchanged in Germany, with the rest of Europe adjusting short and long rates to maintain the baseline differentials vis-à-vis German rates. All other OECD countries are assumed to pursue more or less independent policies with respect to nominal and real interest rates. Since the relevant inflation pressures are very similar across countries and zones, nominal interest rates move broadly in the same fashion throughout the OECD and exchange rates are assumed to be unchanged. Unless otherwise stated, this form of broad monetary assumption is used in all the Scenarios described.

with the scale of the relevant fiscal adjustments and restore real GDP during 1999 to approximately the same levels as in Scenario 1.A. Specifically real interest rates are assumed to be lower by 100, 75 and 50 basis points respectively for the United States, Japan and Germany, implying an area-wide reduction averaging about 70 basis points. Clearly, a wide range of alternative interest rate configurations are possible, with more or less favourable consequences for the support of activity than those shown for this case. The corresponding scenarios are reported in the tables which follow in terms of projected levels and growth rates and as differences from the slow growth case. Comparative movements in GDP, inflation, unemployment and public finances are also illustrated in Figure 2 relative to the original reference scenario.

The results for Scenario 1.B demonstrate just how large and significant the degree of fiscal adjustment would need to be to restore the fiscal consolidation to its baseline path in the face of sustained slower growth. Assuming real interest rates to be unchanged, the model's fiscal expenditure multipliers for the total OECD average a little over unity over a period of four to five years, though on a declining path, (a more detailed analysis of the relevant profile is given in section IV below). Hence with expenditures being cut over the period by an average 3/4 per cent per annum of real GDP the consequent loss of output and employment relative to the slow-growth case is substantial and skewed towards the end of the period -- where potential slippage is greatest. Activity is therefore depressed even further in relation to Scenario 1.A, with GDP growth reduced progressively by up to a further 1 per cent. In spite of greater disinflation, the unemployment rate is raised by the end of the period by 1 1/4 percentage points relative to the slow-growth base and the projected unemployment rate for the OECD area rises to almost 10 per cent by 2000.

One of the more uncertain aspects of this scenario concerns the inflation rate. On the basis of past relationships the profile and degree of demand contraction is sufficient to achieve negative inflation rates towards the end of the period. This is particularly the case for those countries where the inflation projection is already very low, most notably for Japan. Such a result, which is largely outside the range of recent experience of most member countries, is seen as a function of the degree of the contractionary squeeze. A possibly important conclusion is that if such disinflation were not feasible, because of downward rigidities in nominal wage and price adjustment, then the negative consequences for the real-side would be greater -- since with unchanged real interest rates, a smaller fall in inflation is likely to have an unambiguously negative effect on private sector behaviour.

For Scenario 1.C, where real and nominal interest rates are assumed to ease somewhat in advance of the greater part of the fiscal adjustment, the monetary easing boosts activity⁷. Also, lower nominal interest rates are likely to reduce the cost of debt-financing to the government sector, reducing the size of the deficit -- hence real public expenditures need to be cut by less than in the previous case.

Thus although fairly crudely calibrated, the real interest rate reductions factored into this scenario are sufficient to offset all or most of the contractionary effect of the necessary fiscal adjustment. Indeed real GDP is projected to grow a little faster in the shorter term than in the original slow-growth case before slowing towards the end of the period. A somewhat larger reduction in real rates or a slower rate of fiscal adjustment would be necessary to avoid the negative effects of the fiscal contraction on demand and activity in 1999 and 2000. The corresponding effects on unemployment are relatively minor, though the average rate is lower for most of the period relative to Scenario 1.A. Inflation is higher than before but is nonetheless low by current and historical standards.

7. As illustrated later in section IV, according to the model, a sustained area-wide reduction in real interest rates by 1 percentage point is sufficient, over a five- to six-year period, to raise real GDP by 1 per cent and reduce the deficit by a corresponding 1 percentage point of GDP.

An important feature of both these fiscal adjustment scenarios is that, although severe in terms of the size and profile of the implied expenditure reductions, the resulting path of government deficits is nonetheless insufficient to halt the rise in projected net debt to GDP ratios. Indeed the pace of deterioration is seen to accelerate towards the end of the period.

Fiscal adjustment through higher taxes

In considering the scope for fiscal adjustment, an important question is whether this might be best achieved through lower current spending or through higher taxes. The microeconomic conclusions on the distortionary and disincentive effects of higher taxation are sufficiently well-known and do not need to be repeated here. But a question nonetheless remains whether at the level of the macroeconomy there is a clear difference in results as between expenditures and taxes.

To explore this point, two further cases are considered below. These are broadly identical in specification to the previous adjustment cases, but assume that fiscal adjustment is made through increases in direct and indirect taxes instead of current expenditures. Scenario 1.D assumes real interest rates to be unchanged, whereas Scenario 1.E incorporates the same downward adjustment to real interest rates.

Comparing the two cases without monetary easing (1.B and 1.D), adjustment through higher taxes is found to be more costly in terms of real GDP and unemployment. The reasons for this are two-fold. Firstly, raising taxes is potentially less dis-inflationary because of the direct effects on prices and wages. This implies smaller benign effects of disinflation on private sector wealth, real balances and consumer spending and a less favourable effect on the nominal cost of spending programmes. Secondly, for given real interest-rates, less disinflation implies smaller reductions in nominal interest rates and hence a less favourable effect on debt interest payments. In effect, the scale of real adjustment and their longer-term real-side effects appear to be greater for the case of tax adjustment. The same broad conclusions apply with respect to the cases of adjustment with monetary easing, Scenarios 1.C and 1.E, with GDP and unemployment more adversely affected over the period in the latter case.

Tentative conclusions from this analysis are as follows:

- slower than projected growth implies cumulative deterioration in deficits and accelerated growth in the ratio of debt to GDP, a so-called "snowball" effect;
- the profile of necessary fiscal adjustment is therefore steep and would have potentially serious secondary effects on activity and unemployment, unless accompanied by a supporting easing of monetary conditions;
- even so, unless spread smoothly across a run of years, the profile of fiscal adjustment associated with slower growth risks being steep and progressively more difficult to sustain as the slow-down persists;
- because of adverse second-round effects on price and wages, fiscal adjustment through higher taxes appears (at least in the INTERLINK model) to be more costly in terms of output and employment than corresponding reductions in current expenditure.
- in any event, for supportive monetary easing to be effective, the process of fiscal adjustment needs to be both committed and credible.

The implications of faster economic growth

The principal effects of sustained higher rates of growth, reported as Scenario 1.F, are broadly symmetric to the corresponding slow growth scenario. Hence, with OECD GDP growing an average $\frac{1}{2}$ per cent faster than base, government net lending positions are improved by an average $\frac{3}{4}$ per cent of GDP, with government net lending for the total OECD falling to $\frac{1}{4}$ per cent of GDP by 2000. This, in turn, implies cumulative improvements in the ratio of net debt to GDP which for the OECD area is reduced by a little over 8 percentage points by 2000, implying steady reductions in debt from 1997 onwards, to between 35 and 40 per cent of GDP by 2000

The associated path of the unemployment rate is 1 to $1\frac{1}{4}$ per cent lower than in the reference scenario, consistent with an area average below $6\frac{1}{2}$ per cent by 2000. The main counterpart, however, is seen in an accelerating rate of inflation, which for the area as a whole, rises to an average $4\frac{3}{4}$ per cent per annum or more by the end of the period. In the absence of further structural adjustment over the period, the main policy priority in such a case might be seen as that of containing the incipient acceleration in the rate of inflation.

IV. Medium-term output and employment trends and macro-policy adjustment

An important feature of the baseline reference scenario (which abstracts from further structural adjustment), is that the average rates of unemployment for OECD Europe and total OECD are projected to fall by only 1 percentage point between 1995 and 2000, to around $10\frac{1}{2}$ and $7\frac{1}{2}$ per cent respectively. This extremely modest progress in reducing unemployment occurs in spite of relatively robust activity growth and therefore raises the question of whether macro-policy stimulus might result in a better outcome for unemployment and how the wider set of policy objectives might be affected in the short to medium term.

The effects of concerted fiscal stimulus (less consolidation)

The effects of OECD fiscal stimulus are considered below under three different sets of monetary assumptions. The first scenario (Table 2.A.) assumes interest rates to be essentially unchanged in real terms so that any inflationary pressure on real rates is assumed to be offset by a corresponding increase in nominal rates. The second scenario (Table 2.B.) goes further in assuming nominal interest rates to be unchanged at baseline levels, so that inflation effects are allowed to exert further downward pressure on real interest rates and hence stimulus to the real economy. In effect monetary authorities and financial markets are assumed to be willing to allow progressive increases in the rate of inflation. The third scenario (Table 2.C.) represents the polar case where interest rates rise to broadly maintain the baseline paths of monetary aggregates, primarily for the G3 economies. In each case, fiscal stimulus is assumed to be OECD-wide and in the form of an increase in current expenditures equivalent to 1 per cent of real GDP. The corresponding results are reported in Scenario Tables 2.A. to 2.C., with comparative movements in GDP, inflation, unemployment and public-sector finances relative to the reference scenario illustrated in Figure 3.

With unchanged real interest rates, Scenario 2.A, the global multiplier peaks in the second year at around 1.5, and declines steadily thereafter to around 0.5 by the year 2000, given the progressive negative influence of rising inflation on private-sector spending and competitiveness vis-à-vis the rest of the world. The speed of crowding-out is seen to be faster for the major economies than for Europe in general, where real GDP remains about 1 per cent above baseline until the fifth year, reflecting larger intra-Europe trade linkage effects and somewhat slower short-term inflation responses. Overall therefore, OECD growth is projected to be somewhat higher in the near term, but lower beyond 1995.

Inflation rises steadily over the period, by up to 1 1/4 per cent baseline, slightly more so within OECD Europe in the longer term. For the overall projection, this implies inflation rates remaining at or around 3 to 3 1/4 per cent for the major economies and 5 to 5 1/4 per cent for Europe (3¾ excluding Turkey). The corresponding reductions in the rate of unemployment relative to baseline are of the order of 1/2 to 3/4 percentage points in the short-term but decline steadily over the period. For OECD Europe, where employment adjustment is relatively sluggish compared with North America, the overall improvement is typically no greater than 1/2 percentage point. For the area as a whole the average unemployment rate is thus projected to fall to just below 7 1/2 per cent by 2000, and a little over 10 per cent for OECD Europe.

The consequences for the fiscal balance are significant and negative, with deficits on average higher by up to 1 1/2 percentage points of GDP. Thus the costs of increasing real expenditures are higher than the corresponding increases in taxes and reductions in social transfers associated with the stimulus to output. As a result, the average debt to GDP ratio for the total OECD rises to around 50 per cent by 2000, some 3 1/2 percentage points higher than in the underlying reference scenario.

Assuming unchanged nominal interest rates, Scenario 2.B, the stimulative effects of the sustained OECD fiscal expansion are large and potentially unstable. Increased activity generates higher inflation, which in turn puts downward pressure on real interest rates and further boosts activity, through private sector investment and consumption. In this case, the global multiplier for the OECD is relatively large and the level of GDP is raised by over 3.5 per cent relative to baseline by the end of the period, with GDP growth 1/4 percentage point faster than baseline, implying an average rate of 3 to 3 1/4 per cent per annum for the area as a whole. As a result, the effects on unemployment are sustained over the period, the average unemployment rate in 2000 with lower by just over 1 percentage point relative to baseline. But inflation is more than 3 points higher rising to an average rate of almost 6 per cent for the OECD by 2000, with further acceleration in prospect beyond the projection period.

With regard to fiscal deficits, there is a net improvement at the zone and area levels beyond the short term, by up to 1 percentage point of GDP. This reflects the higher levels of tax revenues and lower social transfers associated with higher nominal- and real-income profiles, which eventually more than offset the cost of the stimulus, and the mechanical effect of inflation and higher nominal incomes (which for the area are almost 20 per cent higher than base by 2000) on the calculated ratio. Similarly, the net debt to GDP ratio for the area is progressively smaller compared with the baseline, by an amount equivalent to some 8 percentage points of GDP in 2000. This implies a stabilisation of debt in 1995-96 and some slight decline thereafter. In effect, governments have "inflated away" their debts.

Assuming monetary policy to be broadly non-accommodating, as in Scenario 2.C, higher activity and inflation force up short- and long-term real-interest rates which, in turn, progressively choke off the demand stimulus through interest-sensitive expenditure categories, notably private-sector investment. The speed of crowding-out thus occurs more quickly than in Scenario 2.A, with the level of real GDP returning to base by 1998 and falling below base thereafter. For the OECD area, GDP growth is 1 1/4 percentage points higher than base in 1994, but lower by 1/4 to 1/2 percentage points per annum from 1996 onwards, with an average GDP growth rate of 2 1/2 per cent per annum.

The unemployment rate is somewhat slower to adjust than output, falling by 1/2 percentage point between 1994 and 1997, but is higher than baseline thereafter. For the OECD area, the average unemployment rate is thus projected to decline to around 7 1/2 per cent by 1996 and remain at that level. For OECD Europe, unemployment falls only gradually from 11 per cent in 1994 to around 10 1/4 per cent by 2000. Inflation rises to around 1 percentage point higher than base until 1998 but declines thereafter, as output and unemployment return to base.

Compared with the two previous scenarios, movements in government net lending and net debt in Scenario 2.C are significantly less favourable. With the improvement in output and employment being more transitory, the temporarily higher revenues and lower social transfers fail to compensate for higher current spending. Moreover, significant increases in interest rates raise the cost of debt financing. For the OECD area, government deficits remain between 4 and 4 1/2 per cent of GDP, and net debt rises to between 50 and 55 per cent of GDP by 2000, compared with 45 per cent in the underlying reference scenario.

A useful contrast in the different processes of dynamic adjustment involved in these three simulations is given by Figure 4 which plots the separate paths of unemployment and inflation in the three different cases. Although the initial impacts on unemployment and inflation are identical in all three cases, differing monetary assumptions and the subsequent adjustment paths are quite different. With unchanged nominal interest rates unemployment falls towards a limiting "natural" rate at which inflation continues to accelerate. With unchanged real rates, the inflation rate stabilises at a new higher level, whilst unemployment adjusts slowly back towards baseline. With unchanged money supplies the inflation rate returns back towards baseline as the improvement in unemployment is fully reversed and then rises above baseline.

The effects of lower interest rates

As a further illustration of the importance of monetary effects, Scenarios 3.A and 3.B show the effects of area-wide 100 basis point reductions in real and nominal short-term interest rates. The latter case is equivalent to one where real rates are assumed to fall further than in Scenario 3.A by an amount equivalent to the higher induced levels of inflation. The corresponding results are reported overleaf, with comparative movements in GDP, inflation, unemployment and government-sector finances relative to the reference scenario illustrated in Figure 5.

With the assumed reductions in real interest rates, output and demand are stimulated, primarily through investment and consumption. For the area as a whole, GDP rises above baseline by up to 1 per cent by 2000. In terms of growth, the main stimulus occurs in 1995-96, with only weak effects thereafter. Thus total OECD growth is sustained at around 3 per cent over the full period. The effects on unemployment are somewhat less than 1/2 percentage point relative to baseline, but imply a small further improvement over the period. The inflation rate rises slowly to a more or less stable rate 3/4 percentage point above baseline, implying some slight slippage towards an average 2 3/4 per cent per annum in the major countries, and a smaller decline to around 4 1/4 per cent in Europe by 2000.

The government balance improves relative to the reference scenario given the effects of higher activity on revenues and lower nominal rates on interest payments, by an amount equivalent to around 1 per cent of GDP in 2000. The corresponding profile of the ratio of government net debt to GDP suggests broad stability between 1995/97 with a gradual decline thereafter.

In Scenario 3.B, rising inflation leads to a further fall in real interest rates relative to Scenario 3.A, so that real rates fall by up to 2 1/2 percentage points by 2000. As a result, the stimulus to activity and employment is correspondingly greater, with GDP growth higher by an average 1/4 to 1/2 per cent per annum over the period and the unemployment rate reduced by 1/2 to 3/4 percentage points relative to the original reference scenario. Inflation rises over the period by more than 1 1/2 percentage points relative to baseline (approximately twice the increase in Scenario 3.A), implying increases to around 3 1/2 per cent per annum for the major countries by 2000, and a stable rate of 4 3/4 per cent for OECD Europe. As before, government lending and debt ratios are reduced over the period, with net lending declining to an average deficit of less than 1/2 per cent of GDP and net debt falling to under 40 per cent of GDP by 2000.

The broad conclusions of these scenarios is not greatly different from those drawn from the earlier model comparisons (see, for example, Thurman et al (1994)).

Under each of the monetary assumptions, OECD-wide fiscal action fails to make a significant and sustained inroad into OECD unemployment over the medium-term without the risk of re-igniting inflation:

- with unchanged real interest rates, inflation appears to stabilise fairly quickly at a somewhat higher level but the effects on unemployment are modest and temporary, waning gradually over the period;
- with unchanged nominal interest rates, the reductions in unemployment are larger and more sustained, but the inflation effects are high in relation to the short- to medium-term gains in output and employment; and quick to develop for those countries already moving out of recession;
- with unchanged monetary, the positive short-term activity and employment effects are relatively transitory and fully eroded within five or six years, as the longer-term process of crowding-out proceeds and the economy adjusts back towards the underlying baseline levels of inflation, output and unemployment.

Overall the results suggest that monetary easing, though more gradual in effect, can provide some support to activity and employment over the medium-term. Insofar as there are inflation costs, these too rise gradually with activity, but may be more significant in the longer term. To the extent that monetary relaxation may be necessary because of weaker-than-expected activity or restrictive fiscal action (as in the slow-growth adjustment case discussed earlier), such a supportive role may be possible without serious inflationary risk. Such action would be all the more effective if it were made possible through the benign effects of structural change on wage and price setting, resulting in higher levels of growth and employment at little or no cost to inflation.

Scenario 1.A. **Slower growth with no fiscal or monetary policy reaction**¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from the reference scenario						
GDP growth rate (per cent per annum)							
OECD Major 7	-0.1	-0.3	-0.4	-0.5	-0.5	-0.5	-0.5
OECD Europe	-0.1	-0.3	-0.4	-0.5	-0.5	-0.5	-0.5
OECD Total	-0.1	-0.3	-0.4	-0.5	-0.5	-0.5	-0.5
GDP levels (per cent)							
OECD Major 7	-0.1	-0.4	-0.8	-1.3	-1.8	-2.3	-2.8
OECD Europe	-0.1	-0.4	-0.8	-1.3	-1.8	-2.3	-2.8
OECD Total	-0.1	-0.4	-0.8	-1.3	-1.8	-2.3	-2.8
Inflation rate (per cent per annum)							
OECD Major 7	0	-0.1	-0.5	-0.9	-1.3	-1.7	-2.2
OECD Europe	0	-0.2	-0.4	-0.7	-1.1	-1.5	-1.9
OECD Total	0	-0.2	-0.5	-0.8	-1.2	-1.8	-2.2
Unemployment rate (per cent)							
OECD Major 7	0	0.1	0.4	0.5	0.8	1.0	1.2
OECD Europe	0	0.1	0.2	0.3	0.6	0.7	0.9
OECD Total	0	0.1	0.4	0.5	0.7	1.0	1.2
Government net lending ²							
OECD Major 7	-0.1	-0.2	-0.4	-0.7	-1.1	-1.5	-2.1
OECD Europe	0	-0.1	-0.3	-0.7	-1.1	-1.5	-2.0
OECD Total	0	-0.2	-0.4	-0.7	-1.1	-1.6	-2.1
Government net debt ²							
OECD Major 7	0	0.4	1.2	2.4	4.1	6.4	9.5
OECD Europe	0.1	0.5	1.4	2.7	4.6	7.2	10.4
OECD Total	0	0.4	1.2	2.4	4.2	6.5	9.6
Short-term interest rates (percentage points)							
OECD Major 7	0	0	0	0	0	0	0
OECD Europe	0	0	0	0	0	0	0
OECD Total	0	0	0	0	0	0	0

1. Consumption adjusted downwards to be consistent with ½ per cent per annum slower GDP growth.

2. Per cent of nominal GDP.

Source: OECD INTERLINK model

Scenario 1.B **Slower growth with expenditures adjustment and unchanged real interest rates**¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from Scenario 1.A						
GDP growth rate (per cent per annum)							
OECD Major 7	0	0	-0.2	-0.2	-0.4	-0.8	-1.0
OECD Europe	0	0	-0.1	-0.1	-0.3	-0.5	-0.8
OECD Total	0	0	-0.2	-0.2	-0.4	-0.7	-1.0
GDP levels (per cent)							
OECD Major 7	0	0	-0.2	-0.4	-0.8	-1.6	-2.6
OECD Europe	0	0	-0.1	-0.2	-0.5	-1.0	-1.8
OECD Total	0	0	-0.2	-0.4	-0.8	-1.5	-2.5
Inflation rate (per cent per annum)							
OECD Major 7	0	0	0	-0.2	-0.5	-1.2	-2.0
OECD Europe	0	0	-0.1	-0.2	-0.4	-0.7	-1.4
OECD Total	0	0	0	-0.3	-0.6	-1.1	-2.0
Unemployment rate (per cent)							
OECD Major 7	0	0	0	0.2	0.4	0.8	1.3
OECD Europe	0	0	0.1	0.2	0.2	0.4	0.7
OECD Total	0	0	0	0.2	0.4	0.7	1.2
Government net lending²							
OECD Major 7	0	0	0.1	0.3	0.7	1.2	2.1
OECD Europe	0	0	0.1	0.3	0.7	1.2	2.0
OECD Total	0	0	0.1	0.3	0.7	1.3	2.1
Government net debt²							
OECD Major 7	0	0	0	-0.1	-0.4	-0.8	-1.5
OECD Europe	0	0	0	-0.1	-0.4	-0.7	-1.3
OECD Total	0	0	0	-0.1	-0.4	-0.7	-1.4
Short-term interest rates (percentage points)							
OECD Major 7	0	0	-0.1	-0.2	-0.6	-1.1	-2.0
OECD Europe	0	0	-0.2	-0.2	-0.5	-1.0	-1.6
OECD Total	0	0	-0.1	-0.3	-0.6	-1.2	-2.0

1. As for Scenario 1.A, with expenditures adjusted smoothly to achieve baseline deficit path by 2000.

2. Per cent of nominal GDP

Source: OECD INTERLINK model

Scenario 1.C. **Slower growth with expenditures adjustment and lower real interest rates¹**

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from Scenario 1.A						
GDP growth rate (per cent per annum)							
OECD Major 7	0	0	0.2	0.5	0	-0.5	-0.9
OECD Europe	0	0	0.2	0.3	-0.2	-0.3	-0.6
OECD Total	0	0	0.2	0.4	0	-0.4	-0.8
GDP levels (per cent)							
OECD Major 7	0	0	0.2	0.7	0.7	0.2	-0.7
OECD Europe	0	0	0.2	0.5	0.3	0.0	-0.6
OECD Total	0	0	0.2	0.6	0.6	0.2	-0.6
Inflation rate (per cent per annum)							
OECD Major 7	0	0	0.1	0.3	0.5	0.2	-0.4
OECD Europe	0	0	0	0.2	0.3	0.1	-0.3
OECD Total	0	0	0	0.2	0.4	0.2	-0.4
Unemployment rate (per cent)							
OECD Major 7	0	0	-0.1	-0.2	-0.3	0	0.4
OECD Europe	0	0	0	0	-0.1	0	0.2
OECD Total	0	0	0	-0.1	-0.2	-0.1	0.3
Government net lending²							
OECD Major 7	0	0	0.1	0.3	0.7	1.2	2.1
OECD Europe	0	0	0.1	0.3	0.7	1.2	2.0
OECD Total	0	0	0.1	0.3	0.7	1.3	2.1
Government net debt²							
OECD Major 7	0	0	-0.2	-0.7	-1.5	-2.6	-4.1
OECD Europe	0	0	-0.3	-0.8	-1.6	-2.6	-4.0
OECD Total	0	0	-0.2	-0.7	-1.5	-2.5	-4.0
Short-term interest rates (percentage points)							
OECD Major 7	0	0	-0.7	-0.4	-0.5	-0.7	-1.2
OECD Europe	0	0	-0.4	-0.1	-0.4	-0.6	-0.9
OECD Total	0	0	-0.7	-0.4	-0.5	-0.7	-1.2

1. As for Scenario 1.B with real short- and long-term interest rates reduced by an average 0.7 points from 1

2. Per cent of nominal GDP

Source: OECD INTERLINK model

Scenario 1.D Slower growth with tax adjustment and unchanged real interest rates¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from Scenario 1.A						
GDP growth rate (per cent per annum)							
OECD Major 7	0	0	-0.2	-0.4	-0.8	-1.2	-1.8
OECD Europe	0	0	-0.2	-0.5	-0.8	-1.2	-1.9
OECD Total	0	0	-0.2	-0.5	-0.7	-1.2	-1.8
GDP levels (per cent)							
OECD Major 7	0	0	-0.2	-0.6	-1.4	-2.6	-4.4
OECD Europe	0	0	-0.2	-0.7	-1.5	-2.7	-4.6
OECD Total	0	0	-0.2	-0.7	-1.4	-2.6	-4.4
Inflation rate (per cent per annum)							
OECD Major 7	0	0	0.2	0.1	-0.1	-0.6	-1.3
OECD Europe	0	0	0.2	0.2	0.2	0.1	-0.3
OECD Total	0	0	0.1	0.1	-0.1	-0.5	-1.2
Unemployment rate (per cent)							
OECD Major 7	0	0	0	0.3	0.6	1.2	2.1
OECD Europe	0	0	0	0.3	0.5	0.9	1.6
OECD Total	0	0	0	0.3	0.6	1.1	1.9
Government net lending ²							
OECD Major 7	0	0	0.1	0.3	0.7	1.2	2.1
OECD Europe	0	0	0.1	0.3	0.7	1.2	2.0
OECD Total	0	0	0.1	0.3	0.7	1.3	2.1
Government net debt ²							
OECD Major 7	0	0	-0.1	-0.2	-0.5	-1.0	-1.7
OECD Europe	0	0	-0.1	-0.1	-0.5	-0.9	-1.3
OECD Total	0	0	-0.1	-0.2	-0.5	-1.0	-1.7
Short-term interest rates (percentage points)							
OECD Major 7	0	0	0.1	0.1	-0.1	-0.4	-1.1
OECD Europe	0	0	0.2	0.2	0.2	0.1	-0.1
OECD Total	0	0	0.1	0.1	-0.1	-0.4	-1.0

1. As for Scenario 1.A with taxes adjusted smoothly to achieve baseline deficit path by 2000.

2. Per cent of nominal GDP.

Source: OECD INTERLINK model

Scenario 1.E **Slower growth with tax adjustments and lower real interest rates**¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from the reference scenario						
GDP growth rate (per cent per annum)							
OECD Major 7	0	0	0.3	0.4	-0.2	-1.0	-1.4
OECD Europe	0	0	0.3	0.3	-0.5	-1.1	-1.3
OECD Total	0	0	0.3	0.3	-0.2	-1.0	-1.4
GDP level (per cent)							
OECD Major 7	0	0	0.3	0.7	0.5	-0.5	-1.9
OECD Europe	0	0	0.3	0.6	0.1	-1.0	-2.3
OECD Total	0	0	0.3	0.6	0.4	-0.6	-2.0
Inflation rate (per cent per annum)							
OECD Major 7	0	0	0.1	0.4	0.7	0.6	0.2
OECD Europe	0	0	0.1	0.4	0.7	0.8	0.6
OECD Total	0	0	0.1	0.4	0.7	0.7	0.3
Unemployment rate (per cent)²							
OECD Major 7	0	0	-0.1	-0.2	-0.3	0.2	0.9
OECD Europe	0	0	0	-0.1	-0.1	0.3	0.8
OECD Total	0	0	-0.1	-0.2	-0.2	0.2	0.8
Government net lending²							
OECD Major 7	0	0	0.1	0.3	0.7	1.2	2.1
OECD Europe	0	0	0.1	0.3	0.7	1.2	2.0
OECD Total	0	0	0.1	0.3	0.7	1.3	2.1
Government net debt (2)							
OECD Major 7	0	0	-0.2	-0.8	-1.6	-2.7	-4.2
OECD Europe	0	0	-0.3	-0.9	-1.7	-2.7	-4.1
OECD Total	0	0	-0.3	-0.8	-1.6	-2.7	-4.2
Short-term interest rates (percentage points)							
OECD Major 7	0	0	-0.7	-0.4	-0.2	-0.1	-0.4
OECD Europe	0	0	-0.4	-0.1	0.2	0.3	0.3
OECD Total	0	0	-0.6	-0.3	-0.1	-0.1	-0.3

1. As Scenario 1.D with real short- and long-term interest rates reduced by an average 0.7 points from 1966.

2. Per cent of nominal GDP.

Source: OECD INTERLINK model

Scenario 1.F **Faster growth with no fiscal or monetary policy reaction**¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from the reference scenario						
GDP growth rate (per cent per annum)							
OECD Major 7	0.1	0.3	0.5	0.5	0.5	0.5	0.5
OECD Europe	0.1	0.3	0.5	0.5	0.5	0.5	0.5
OECD Total	0.1	0.3	0.5	0.5	0.5	0.5	0.5
GDP level (per cent)							
OECD Major 7	0.1	0.4	0.9	1.4	1.9	2.4	2.9
OECD Europe	0.1	0.4	0.9	1.4	1.9	2.4	2.9
OECD Total	0.1	0.4	0.9	1.4	1.9	2.4	2.9
Inflation rate (per cent per annum)							
OECD Major 7	0.1	0.2	0.5	0.8	1.2	1.7	2.1
OECD Europe	0.1	0.1	0.3	0.7	1.0	1.6	2.0
OECD Total	0.1	0.1	0.4	0.8	1.3	1.7	2.2
Unemployment rate (per cent)							
OECD Major 7	-0.1	-0.1	-0.3	-0.6	-0.8	-1.0	-1.2
OECD Europe	0	-0.1	-0.3	-0.4	-0.6	-0.8	-1.0
OECD Total	-0.1	-0.2	-0.3	-0.6	-0.8	-1.0	-1.2
Government net lending ²							
OECD Major 7	0	0.1	0.3	-0.3	0	1.4	1.8
OECD Europe	0.1	0.1	0.4	0.6	0.9	1.3	1.7
OECD Total	0	0.1	0.3	0.7	1.0	1.4	1.8
Government net debt ²							
OECD Major 7	-0.1	-0.4	-1.1	-2.2	-3.8	-5.8	-8.2
OECD Europe	-0.1	-0.4	-1.3	-2.5	-4.2	-6.3	-8.9
OECD Total	-0.1	-0.4	-1.1	-2.2	-3.8	-5.8	-8.3
Short-term interest rates (percentage points)							
OECD Major 7	0	0	0	0	0	0	0
OECD Europe	0	0	0	0	0	0	0
OECD Total	0	0	0	0	0	0	0

1. Consumption adjusted upwards to be consistent with ½ per cent per annum faster GDP growth.

2. Per cent of nominal GDP

Source: OECD INTERLINK model

Scenario 2.A Higher government spending with unchanged real interest rates¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from the reference scenario						
GDP growth rate (per cent per annum)							
OECD Major 7	1.5	0.2	-0.4	-0.3	-0.1	-0.1	-0.1
OECD Europe	1.2	0.1	-0.1	-0.2	-0.1	-0.1	-0.1
OECD Total	1.4	0.1	-0.3	-0.3	-0.1	-0.1	-0.1
GDP level (per cent)							
OECD Major 7	1.5	1.7	1.3	1.0	0.9	0.8	0.7
OECD Europe	1.2	1.3	1.2	1.0	0.9	0.8	0.7
OECD Total	1.4	1.5	1.2	1.0	0.9	0.8	0.7
Inflation rate (per cent per annum)							
OECD Major 7	0.5	1.2	1.3	1.1	1.1	1.2	1.2
OECD Europe	0.3	0.7	0.9	1.1	1.2	1.4	1.4
OECD Total	0.5	1.1	1.3	1.2	1.3	1.2	1.3
Unemployment rate (per cent)							
OECD Major 7	-0.5	-0.7	-0.6	-0.5	-0.3	-0.2	-0.1
OECD Europe	-0.2	-0.4	-0.5	-0.5	-0.4	-0.4	-0.3
OECD Total	-0.5	-0.7	-0.6	-0.5	-0.4	-0.3	-0.2
Government net lending ²							
OECD Major 7	-0.8	-0.6	-0.8	-1.0	-1.2	-1.4	-1.6
OECD Europe	-0.8	-0.8	-0.8	-1.1	-1.3	-1.5	-1.7
OECD Total	-0.8	-0.6	-0.7	-1.0	-1.2	-1.4	-1.5
Government net debt ²							
OECD Major 7	0.1	0.3	0.8	1.5	2.2	3.0	4.1
OECD Europe	0.1	0.4	0.8	1.4	1.9	2.7	3.6
OECD Total	0.1	0.3	0.6	1.3	1.9	2.7	3.6
Short-term interest rates (percentage points)							
OECD Major 7	0.7	1.0	1.1	1.2	1.2	1.3	1.3
OECD Europe	0.5	0.7	0.9	1.0	1.2	1.3	1.4
OECD Total	0.6	1.0	1.1	1.2	1.2	1.3	1.3

1. Increase in real current expenditures equal to 1 per cent of real GDP.

2. Per cent of nominal GDP

Source: OECD INTERLINK model

Scenario 2.B. Higher government spending with unchanged nominal interest rates¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from the reference scenario						
GDP growth rate (per cent per annum)							
OECD Major 7	1.6	0.7	0.3	0.2	0.3	0.3	0.3
OECD Europe	1.4	0.6	0.4	0.3	0.4	0.4	0.3
OECD Total	1.5	0.7	0.3	0.2	0.3	0.3	0.3
GDP level (per cent)							
OECD Major 7	1.6	2.3	2.6	2.8	3.1	3.4	3.6
OECD Europe	1.4	2.0	2.4	2.7	3.1	3.5	3.7
OECD Total	1.5	2.2	2.5	2.7	3.0	3.3	3.6
Inflation rate (per cent per annum)							
OECD Major 7	0.5	1.5	2.0	2.3	2.6	2.9	3.2
OECD Europe	0.3	0.9	1.4	1.9	2.3	2.8	3.2
OECD Total	0.5	1.3	1.9	2.3	2.7	3.0	3.3
Unemployment rate (per cent)							
OECD Major 7	-0.5	-0.9	-1.0	-1.1	-1.1	-1.1	-1.1
OECD Europe	-0.3	-0.6	-0.8	-0.9	-1.0	-1.2	-1.2
OECD Total	-0.5	-0.9	-0.9	-1.1	-1.1	-1.1	-1.1
Government net lending ²							
OECD Major 7	-0.7	-0.2	0.1	0.4	0.5	0.8	1.1
OECD Europe	-0.6	-0.3	0.1	0.2	0.5	0.9	1.2
OECD Total	-0.6	-0.2	0.1	0.3	0.6	0.8	1.1
Government net debt ²							
OECD Major 7	-0.1	-0.6	-1.4	-2.5	-3.9	-5.6	-7.5
OECD Europe	-0.2	-0.8	-1.8	-3.0	-4.9	-7.1	-9.6
OECD Total	-0.1	-0.7	-1.5	-2.6	-4.1	-5.9	-7.9
Short-term interest rates (percentage points)							
OECD Major 7	0	0	0	0	0	0	0
OECD Europe	0	0	0	0	0	0	0
OECD Total	0	0	0	0	0	0	0

1. Increase in real current expenditures equal to 1 per cent of real GDP.

2. Per cent of nominal GDP

Source: OECD INTERLINK model

Scenario 2.C **Higher government spending with monetary non-accommodation**¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from the reference scenario						
GDP growth rate (per cent per annum)							
OECD Major 7	1.4	0.1	-0.5	-0.4	-0.4	-0.5	-0.4
OECD Europe	1.2	-0.1	-0.2	-0.3	-0.2	-0.4	-0.4
OECD Total	1.3	0.1	-0.4	-0.5	-0.3	-0.5	-0.4
GDP level (per cent)							
OECD Major 7	1.4	1.5	1.0	0.6	0.2	-0.3	-0.7
OECD Europe	1.2	1.1	0.9	0.6	0.4	0	-0.4
OECD Total	1.3	1.4	1.0	0.5	0.2	-0.3	-0.7
Inflation rate (per cent per annum)							
OECD Major 7	0.5	1.1	1.1	1.0	0.8	0.6	0.4
OECD Europe	0.3	0.6	0.8	0.8	0.8	0.9	0.8
OECD Total	0.4	1.0	1.1	1.0	0.9	0.7	0.5
Unemployment rate (per cent)							
OECD Major 7	-0.5	-0.7	-0.5	-0.3	-0.1	0.1	0.3
OECD Europe	-0.2	-0.4	-0.4	-0.3	-0.3	-0.2	-0.1
OECD Total	-0.5	-0.7	-0.5	-0.4	-0.2	0	0.1
Government net lending ²							
OECD Major 7	-0.9	-0.8	-1.0	-1.3	-1.7	-2.2	-2.8
OECD Europe	-1.0	-1.3	-1.4	-1.8	-2.2	-2.6	-3.1
OECD Total	-0.9	-0.8	-1.0	-1.3	-1.7	-2.1	-2.6
Government net debt ²							
OECD Major 7	0.2	0.6	1.4	2.5	3.8	5.7	8.2
OECD Europe	0.4	1.3	2.4	3.8	5.3	7.5	10.0
OECD Total	0.2	0.6	1.3	2.3	3.7	5.4	7.7
Short-term interest rates (percentage points)							
OECD Major 7	1.5	2.1	2.1	2.2	2.3	2.5	2.5
OECD Europe	2.1	2.6	2.3	2.2	2.3	2.5	2.4
OECD Total	1.6	2.1	2.1	2.2	2.3	2.4	2.4

1. Increase in real current expenditures equal to 1 per cent of real GDP.

2. Per cent of nominal GDP

Source: OECD INTERLINK model

Scenario 3.A 1 per cent reduction in real interest rates¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from the reference scenario						
GDP growth rate (per cent per annum)							
OECD Major 7	0.2	0.4	0.4	0.2	0.1	0.1	0.1
OECD Europe	0.2	0.2	0.3	0.1	0.1	0.1	0.1
OECD Total	0.2	0.3	0.3	0.1	0.2	0.1	0.1
GDP levels (per cent)							
OECD Major 7	0.2	0.6	1.0	1.2	1.3	1.4	1.5
OECD Europe	0.2	0.4	0.7	0.8	0.9	1.0	1.1
OECD Total	0.2	0.5	0.9	1.0	1.2	1.3	1.4
Inflation rate (per cent per annum)							
OECD Major 7	0.1	0.3	0.4	0.5	0.6	0.7	0.7
OECD Europe	0.1	0.2	0.3	0.4	0.5	0.6	0.7
OECD Total	0.1	0.2	0.4	0.5	0.6	0.6	0.7
Unemployment rate (per cent)							
OECD Major 7	-0.1	-0.1	-0.2	-0.3	-0.4	-0.3	-0.4
OECD Europe	0	-0.1	-0.2	-0.2	-0.3	-0.4	-0.4
OECD Total	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.4
Government net lending ²							
OECD Major 7	0.1	0.3	0.4	0.7	0.8	0.9	1.0
OECD Europe	0.2	0.4	0.6	0.7	0.8	1.0	1.1
OECD Total	0.1	0.3	0.4	0.6	0.8	0.8	1.0
Government net debt ²							
OECD Major 7	-0.2	-0.7	-1.3	-2.1	-3.0	-4.1	-5.1
OECD Europe	-0.3	-0.8	-1.6	-2.5	-3.6	-4.7	-6.0
OECD Total	-0.3	-0.7	-1.3	-2.1	-3.0	-4.0	-5.1
Short-term interest rates (percentage points)							
OECD Major 7	-0.9	-0.7	-0.6	-0.5	-0.4	-0.3	-0.2
OECD Europe	-0.9	-0.8	-0.6	-0.5	-0.5	-0.4	-0.3
OECD Total	-0.9	-0.8	-0.6	-0.5	-0.5	-0.4	-0.3

1. European rates move in line with German rates, which fall by 1 per cent in real terms.

2. Per cent of nominal GDP.

Source: OECD INTERLINK model

Scenario 3.B 1 per cent reduction in nominal interest rates¹

	1994	1995	1996	1997	1998	1999	2000
	percentage differences from the reference scenario						
GDP growth rate (per cent per annum)							
OECD Major 7	0.2	0.4	0.4	0.3	0.3	0.3	0.4
OECD Europe	0.2	0.3	0.4	0.3	0.3	0.3	0.3
OECD Total	0.2	0.3	0.4	0.3	0.3	0.3	0.4
GDP levels (per cent)							
OECD Major 7	0.2	0.6	1.0	1.3	1.6	1.9	2.3
OECD Europe	0.2	0.5	0.9	1.2	1.5	1.8	2.1
OECD Total	0.2	0.5	0.9	1.2	1.5	1.8	2.2
Inflation rate (per cent per annum)							
OECD Major 7	0.1	0.3	0.5	0.7	0.9	1.1	1.4
OECD Europe	0.1	0.2	0.4	0.6	0.8	1.1	1.3
OECD Total	0.1	0.2	0.5	0.7	0.9	1.1	1.4
Unemployment rate (per cent)							
OECD Major 7	-0.1	-0.2	-0.3	-0.5	-0.5	-0.6	-0.7
OECD Europe	0	-0.1	-0.3	-0.3	-0.4	-0.5	-0.6
OECD Total	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7
Government net lending ²							
OECD Major 7	0.1	0.4	0.6	0.9	1.1	1.4	1.7
OECD Europe	0.3	0.5	0.8	1.0	1.2	1.6	1.9
OECD Total	0.2	0.3	0.6	0.9	1.1	1.4	1.7
Government net debt ²							
OECD Major 7	-0.3	-0.8	-1.7	-2.8	-4.2	-5.9	-7.8
OECD Europe	-0.3	-1.0	-2.1	-3.4	-5.1	-7.0	-9.3
OECD Total	-0.3	-0.8	-1.7	-2.7	-4.1	-5.8	-7.8
Short-term interest rates (percentage points)							
OECD Major 7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
OECD Europe	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
OECD Total	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

1. European rates move in line with German rates, which fall by 1 per cent in nominal terms.

2. Per cent of nominal GDP.

Source: OECD INTERLINK model

Figure 1: Medium-term reference scenario

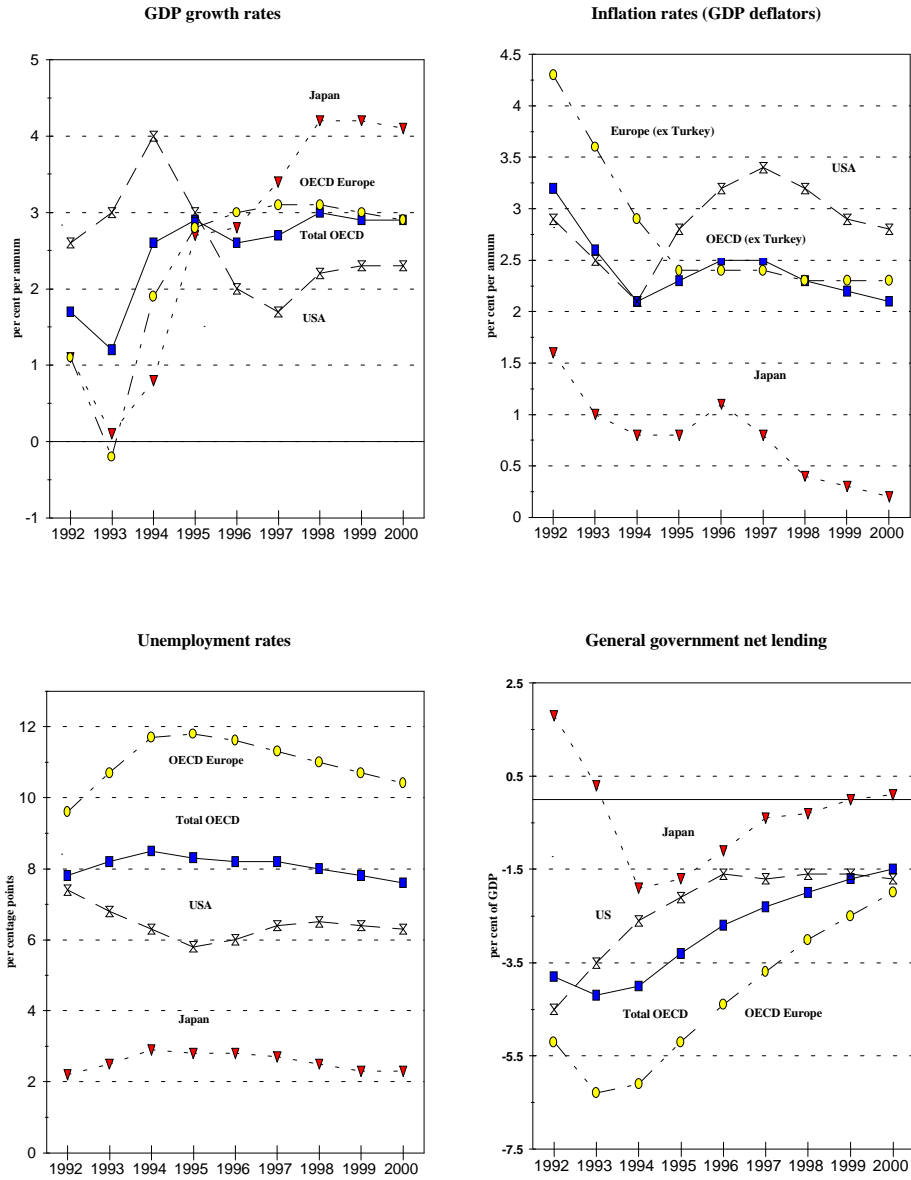
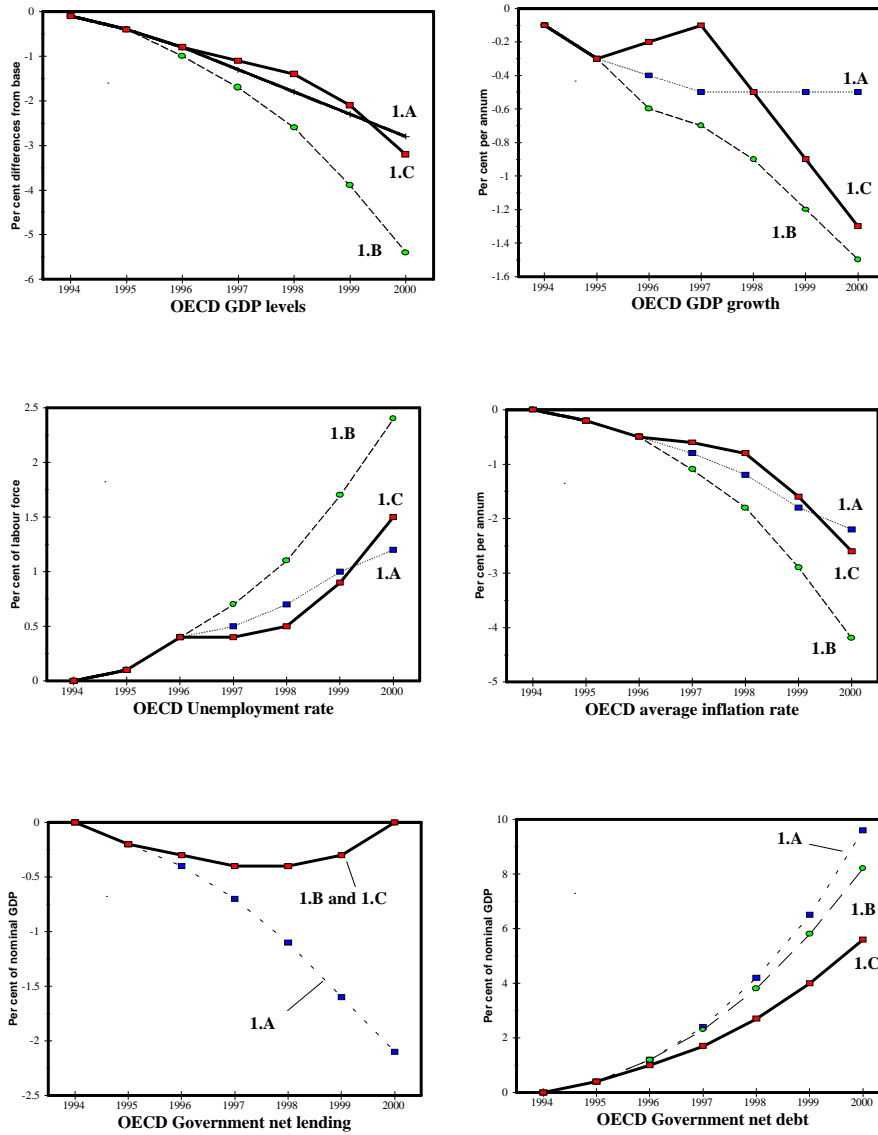


Figure 2: Slower growth under alternative policy assumptions

(Percentage point differences from the reference scenario)



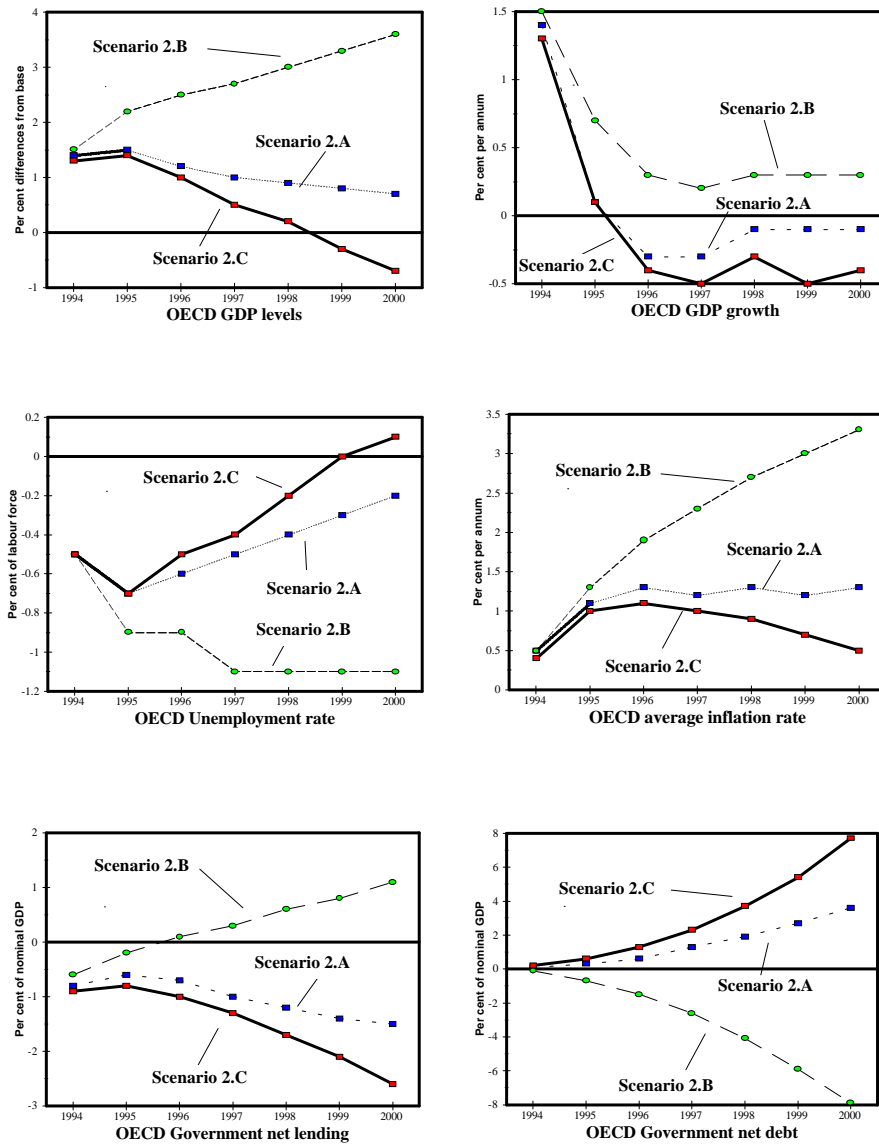
Scenario 1.A: Slow growth with no policy adjustment

Scenario 1.B: Slow growth with expenditure adjustment and unchanged real interest rates

Scenario 1.C: Slow growth with expenditure adjustment and lower real interest rates

Figure 3: OECD-wide fiscal expansion under alternative monetary assumptions

(Percentage point differences from the reference scenario)



Scenario 2.A: Fiscal expansion with unchanged real interest rates

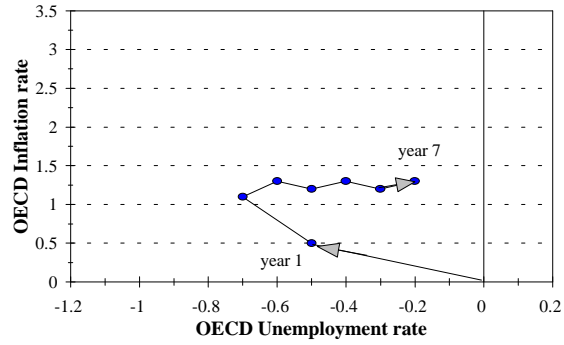
Scenario 2.B: Fiscal expansion with unchanged nominal interest rates

Scenario 2.C: Fiscal expansion with unchanged G3 monetary aggregates

Figure 4: OECD Unemployment/Inflation responses under alternative monetary assumptions

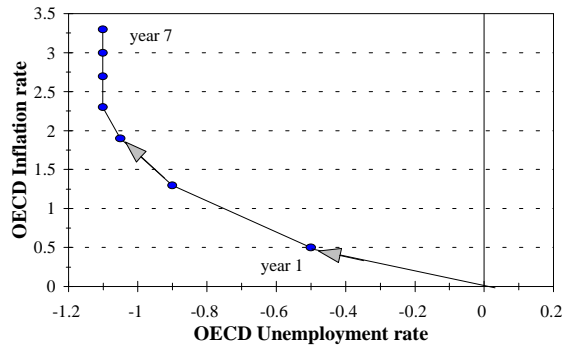
Unchanged real interest rates (2.A)

Percentage deviations from baseline



Unchanged nominal interest rates (2.B)

Percentage deviations from baseline



Unchanged money supply (2.C)

Percentage deviations from baseline

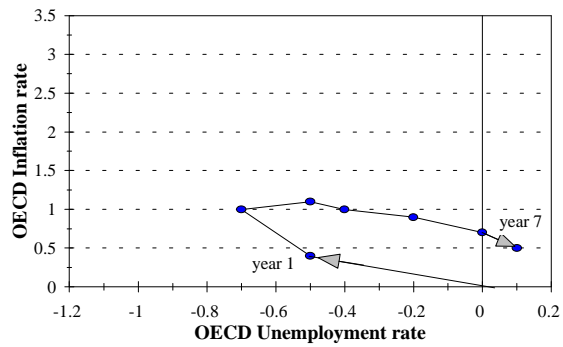
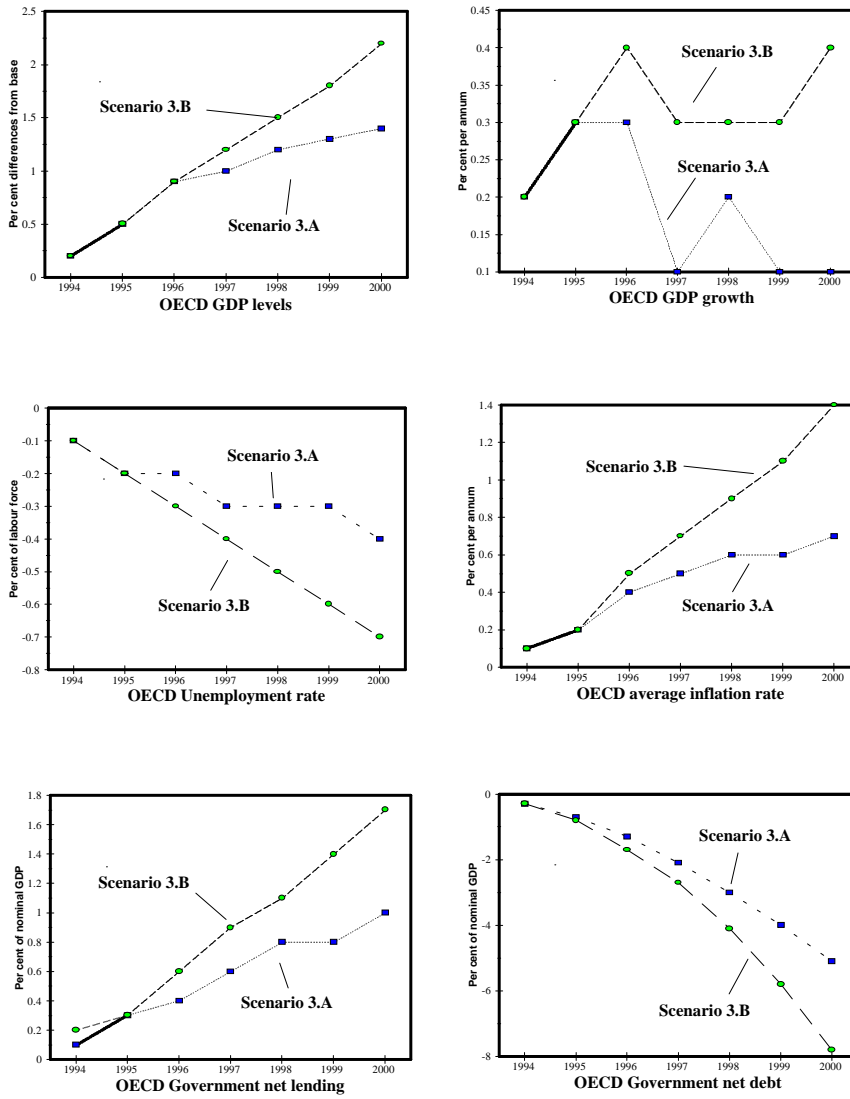


Figure 5: The effects of lower real and nominal interest rates

(Percentage point differences from the reference scenario)



Scenario 3.A: 1 per cent lower real short-term interest rates
 Scenario 3.B: 1 per cent lower nominal short-term interest rates

Annex

The Medium-Term Reference Scenario

Scope and key assumptions

The OECD reference scenario comprises an internationally consistent set of projections for each of the OECD economies to the year 2000 constructed as an extension of recent short-term projections (Economic Outlook No.55). Such a scenario is not a forecast but one of many possible projections. Medium-term analyses are highly conditional, subject to wide margins of error and necessarily incorporate a large dose of judgement concerning future policies, the scope for structural change and the path of trend developments in the area.

An important feature of the reference scenario is that, for the most part, it embodies a steady adjustment towards stated medium-term fiscal and monetary policy goals, primarily those associated with inflation and the fiscal balance. It therefore serves to highlight areas and issues of particular uncertainty, where "normal" trend relationships indicate underlying pressures and imbalances which may be resolved only by policy action or structural change. It also provides a useful starting point for policy simulation and alternative scenario analyses.

The scenario is based on the assumptions that commodity prices and exchange rates will be broadly unchanged in real terms beyond the short-term projection horizon (i.e. from end-1995). For those countries participating in the European Exchange Rate Mechanism and their close trading partners in Europe, bilateral exchange rates are assumed to be fixed in nominal terms. Although no explicit assumption is made about the form and timing of European Monetary Union, a general convergence over the period of short- and long-term European interest rates is embodied in the baseline scenario. Beyond the horizon of the short-term projections, fiscal and monetary policy assumptions broadly follow stated medium-term policy objectives. A summary of these fiscal objectives is given in Table A.1.

Broad features of the reference scenario

The following paragraphs describe the broad features of the reference scenario for the area as a whole and main geographic zones. Key movements in main macroeconomic aggregates are summarised in Table A.2.

Following the steady recovery of activity projected during 1994-95, real GDP for the total OECD grows in the scenario by an average $2\frac{3}{4}$ to 3 per cent per annum (with world trade growing at an average 6 to 7 per cent per annum). Such growth is somewhat higher than current estimates of OECD potential, of around $2\frac{1}{2}$ per cent per annum, implying a gradual but significant closing of output gaps over the period in most countries. The pattern of these developments, however, varies across member countries and zones, in part reflecting the different near-term conjunctural positions and margins of spare capacity.

For the United States, the pattern of strong near-term growth embodied in the short-term projections is followed by a significant slowdown in 1996 and 1997 with GDP growth stabilising thereafter

at an average $2\frac{1}{4}$ per cent per annum, broadly in line with potential. The specific profile of medium-term growth reflects the strength of near-term growth and the stance of monetary policy which is assumed to tighten through 1994-95 with the build-up of near-term inflationary pressure. For Japan and Europe, GDP is projected to grow robustly between 1996 and 2000, at average rates of $3\frac{3}{4}$ and 3 per cent respectively, somewhat faster than current estimates of potential. For the most part, the growth path for Europe is conditional on a combination of favourable factors influencing business investment and private consumption -- notably improved confidence and lower real interest rates -- and, to a lesser extent, the catch-up process within the German economy. The relatively robust path of domestic demand growth in Germany from the mid-1990s is dependent on rising capital expenditures, principally those associated with the transformation of the eastern Länder.

For the area as a whole, an important contribution to near-term recovery and medium-term growth is a resumption of growth in private investment, at annual rates of 5 to 6 per cent. Growth in real public expenditures is assumed to stay well below 1 per cent per annum, reflecting the programmes of fiscal consolidation currently in place in the majority of member countries. Budgetary restrictions and a moderation in real wage claims tend to restrain growth in households real disposable income so that real growth in private consumption, at an average $2\frac{1}{2}$ per cent per annum, remains below that of GDP, in spite of some gradual decline in households saving rates.

Labour productivity is assumed to grow at a rate broadly consistent with average growth of the last 10 to 15 years, generally in the range of $1\frac{1}{2}$ to 2 per cent per annum, and area-wide employment is projected to grow by an average 1 per cent per annum. With the total OECD labour force growing only slightly less, the reduction in unemployment over the period is relatively modest, down by about 1 percentage point between 1994 and 2000, to an average $7\frac{1}{2}$ per cent for the total OECD and $10\frac{1}{2}$ per cent for OECD Europe. Although modest, these reductions are likely to be most significant in those countries experiencing the highest rates of unemployment at present. By the year 2000 there are four member countries with projected unemployment rates significantly in excess of 10 per cent, compared with nine such countries in the short-term projection for 1995.

Average OECD inflation, excluding Turkey, declines slightly from $2\frac{1}{4}$ per cent in 1995 to around 2 per cent by the year 2000. For Europe, the rate of inflation remains relatively stable from 1995 onwards, whilst for the United States there is upward pressure in the near term due to the strength of demand and activity. This development is progressively reversed from 1997 onwards as the effects of monetary tightening are felt. For Japan, a process of further disinflation continues, although the profile is distorted in 1996-97 when higher indirect taxes are assumed to come into effect to offset the budgetary cost of reductions in direct taxes.

Given the effects of sustained medium-term growth and active programmes of fiscal consolidation in most countries, major progress is made in budget deficit reduction. For the area as a whole, the ratio of general government net borrowing to GDP falls below $1\frac{1}{2}$ per cent of GDP by the year 2000 and only two countries have fiscal deficits much in excess of 3 per cent of GDP, compared with eleven such countries in 1995. Such a pace of fiscal consolidation is sufficient to achieve a broad stabilisation of the ratio of government debt to GDP for the area as a whole, with some small improvements occurring from 1997 onwards. As reported in Table A.3, the experience across individual member countries is, nonetheless, varied reflecting different speeds of fiscal adjustment and different starting levels of public debt.

With regard to sectoral balances, the main counterpart to the general improvement in budget deficits is found in a fall in private sector savings and investment balances, reflecting relatively robust growth in investment and modest declines in households saving rates. Thus, for the most part, there is no major change in external deficits at the aggregate OECD level. For Japan, the current account surplus

declines by around $\frac{3}{4}$ per cent of GDP to below 2 per cent by 2000, with the main counterparts seen in corresponding small improvements in the current account positions of the other major seven economies.

Overall, the combination of fiscal consolidation and low inflation is compatible in most countries with a general reduction in nominal and in real short- and long term interest rates. These reductions are most significant within Europe, where fiscal consolidation is projected to progress the most.

Table A.1. **Fiscal targets**

Country	Fiscal targets
United States	Budgetary savings scheduled under the Omnibus Budget Reconciliation Act (OBRA93) would produce a fall in the federal budget deficit from \$290 billion in FY 1992 to \$180 billion by FY 1997/98. Approximately equal contributions are planned from increased taxation and reduced spending. These targets are based on 2½ per cent average economic growth.
Japan	The Government has no explicit targets, but has guidelines to reduce "construction bonds" for financing public works expenditure to 5 per cent of central government outlays by fiscal year 1995.
Germany	The medium-term consolidation strategy aims at cutting the federal deficit from DM 67 billion in 1993 to DM 46 billion in 1997, and limiting the annual rise of expenditure of the territorial authorities to 3 per cent per annum.
France	The Government intends to reduce the central government deficit to 2½ per cent of GDP in 1997 and to increase spending by the State (including debt servicing) by no more than the inflation rate, assuming an average annual rate of growth of real GDP of 2.8 per cent and revenues rising in line with GDP.
Italy	The new "Convergence Programme" drawn up in July 1993 targets a reduction in the State deficit (excluding proceeds from privatisation) from 9.7 per cent of GDP in 1993 to 5.8 per cent in 1996.
United Kingdom	The Government intends to bring the Public Sector Borrowing Requirement back to balance by the end of the century. This target assumes that real growth will be around 3 per cent per annum.
Canada	The Government intends to bring the federal deficit down to 3 per cent of GDP by FY 1996/97. The Spending Control Act ensures that over the next two years primary spending will gradually decline as a share of GDP.

Table A.1. (continued)

Country	Fiscal targets
Australia	The Government intends to lower the federal deficit to 1.2 per cent of GDP by FY 1996/97, with emphasis on tax increases.
Austria	The Government intends to reduce the federal deficit to 2½ per cent of GDP by 1994.
Belgium	The "Plan de Convergence" aims at putting fiscal consolidation on course, and targets the general government budget deficit at 3 per cent of GDP in 1996, while setting the debt to GDP ratio on a declining trend.
Denmark	The Government intends to achieve fiscal balance on a cyclically-adjusted basis by 1999.
Finland	The Government intends to stabilise central government debt at 70 per cent of GDP by 1997 and freeze real central government expenditure at 1991 levels.
Ireland	The Government intends to keep the exchequer borrowing requirement within 3 per cent of GNP and continue to reduce the debt to GNP ratio.
Netherlands	The Government intends to achieve a central government deficit of 3¾ per cent of Net National Income for 1994 and a maximum of 3¾ per cent for 1995 and 1996.
Norway	The Government's long-term programme aims at restricting growth in public expenditure to 2 per cent per year on average during 1994-97.
Portugal	The Government intends to reduce the deficit to 3.3 per cent of GDP, and reverse upward trend in public debt ratio, reducing it to 67 per cent by 1997.
Spain	The Government intends to achieve Maastricht deficit and debt targets for convergence by 1996.
Sweden	The Government intends to achieve a gradual return to structural budget balance by 1998.
Switzerland	The Federal Government aims for cyclically-adjusted budget balance.

Table A.2. Summary of the medium-term reference scenario^a

	1992	1993	1994	1995	1996	1997	1998	1999	2000
	Percentage changes from previous period								
Real GDP									
United States	2.6	3.0	4.0	3.0	2.0	1.7	2.2	2.3	2.3
Japan	1.1	0.1	0.8	2.7	2.8	3.4	4.2	4.2	4.1
Germany	2.1	-1.3	1.8	2.6	2.8	3.1	3.4	3.2	3.0
OECD Europe	1.1	-0.2	1.9	2.8	3.0	3.1	3.1	3.0	2.9
Total OECD	1.7	1.2	2.6	2.9	2.6	2.7	3.0	2.9	2.9
Inflation^b									
United States	2.9	2.5	2.1	2.8	3.2	3.4	3.2	2.9	2.8
Japan	1.6	1.0	0.8	0.8	1.1	0.8	0.4	0.3	0.2
Germany	5.3	3.9	2.8	2.0	1.9	2.0	2.0	2.0	1.9
OECD Europe (excluding Turkey)	4.3	3.6	2.9	2.4	2.4	2.4	2.3	2.3	2.3
Total OECD (excluding Turkey)	3.2	2.6	2.1	2.3	2.5	2.5	2.3	2.2	2.1
Total OECD	3.9	3.4	3.5	3.3	3.3	3.3	3.0	2.8	2.6
	Per cent of labour force								
Unemployment									
United States	7.4	6.8	6.3	5.8	6.0	6.4	6.5	6.4	6.3
Japan	2.2	2.5	2.9	2.8	2.8	2.7	2.5	2.3	2.3
Germany	7.7	8.9	10.0	10.0	9.9	9.8	9.6	9.4	9.4
OECD Europe	9.6	10.7	11.7	11.8	11.6	11.3	11.0	10.7	10.4
Total OECD	7.8	8.2	8.5	8.3	8.2	8.2	8.0	7.8	7.6
	Per cent								
Short-term interest rates^c									
United States	3.4	3.0	4.2	5.5	5.5	4.8	4.5	4.3	4.3
Japan	4.3	2.9	2.3	2.7	3.3	3.3	3.3	3.5	3.5
Germany	9.5	7.3	5.1	4.3	4.0	4.0	4.2	4.3	4.3
France	10.3	8.6	5.3	4.3	4.0	4.0	4.2	4.3	4.3
Major 4 European countries ^d	11.0	8.1	5.8	5.2	4.9	4.9	5.0	5.1	5.2
	Per cent of GDP								
Government budget balances^e									
United States	-4.5	-3.5	-2.6	-2.1	-1.6	-1.7	-1.6	-1.6	-1.7
Japan	1.8	0.3	-1.9	-1.7	-1.1	-0.4	-0.3	0.0	0.1
Germany	-2.6	-3.3	-2.9	-2.8	-2.8	-2.4	-2.1	-1.8	-1.5
OECD Europe ^f	-5.2	-6.3	-6.1	-5.2	-4.4	-3.7	-3.0	-2.5	-2.0
Total OECD ^f	-3.8	-4.2	-4.0	-3.3	-2.7	-2.3	-2.0	-1.7	-1.5
Current balances									
United States	-1.1	-1.7	-2.1	-2.1	-2.1	-2.0	-2.0	-1.9	-1.9
Japan	3.2	3.1	2.8	2.5	2.3	2.1	2.0	1.9	1.8
Germany	-1.1	-1.1	-0.7	-0.2	-0.1	-0.1	0.0	0.0	-0.1
OECD Europe	-0.7	0.3	0.7	1.0	1.1	1.1	1.1	1.0	1.0
Total OECD	-0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Percentage changes from previous period								
World trade^g	5.0	3.3	6.7	7.2	6.9	7.0	7.3	7.2	7.1

a) The assumptions behind the medium-term scenario are discussed in the text.

b) GDP deflator.

c) United States: 3-month Treasury Bills; Japan: 3-6 month CD; Germany, France, Italy, United Kingdom: 3-month interbank rates.

d) Unweighted average of Germany, France, Italy and the United Kingdom.

e) General government financial balances as per cent of nominal GDP.

f) Regional and area-wide totals exclude Iceland, Luxembourg, New Zealand, Switzerland and Turkey.

g) Arithmetic average of the growth rates of world import and export volumes.

Table A.3. **Fiscal trends in the medium-term reference scenario**

	General government			
	Financial balances ^a		Gross debt ^b	
	As a percentage of nominal GDP			
	1995	2000 ^c	1995	2000 ^c
United States	-2.1 ^d	-1.7 ^d	64.1	62.6
Japan	-1.7	0.1	82.6	87.6
Germany	-2.8	-1.5	64.3	66.8
France	-5.2	-1.9	60.6	65.3
Italy	-8.6	-3.4	120.7	114.9
United Kingdom	-4.3	0.2	52.3	46.9
Canada	-4.0	-1.8	95.4	91.0
Total of above countries	-3.1	-1.4	72.0	71.8
Australia	-3.4	-0.3	38.8 ^e	39.9 ^e
Austria ^f	-3.3	-2.1	59.1	56.4
Belgium	-4.7	-2.3	144.8	131.6
Denmark ^f	-3.2	1.0	69.6	64.5
Finland ^f	-5.5	-2.3	64.2	81.6
Greece ^f	-12.5	-7.2	112.4	122.1
Ireland	-2.6	-2.2	84.9	72.0
Netherlands	-3.7	-2.0	81.7	80.4
Norway ^f	-1.8	-2.3	50.4	63.1
Portugal	-6.6	-2.8	72.6	66.5
Spain ^f	-5.9	-2.9	67.4	71.0
Sweden	-9.5	-5.0	100.8	123.4
Total of above smaller countries	-5.2	-2.4	75.7	77.7
Total of above European	-5.2	-2.0	76.1	76.3
Total of above OECD countries	-3.3	-1.5	72.4	72.6

a) Fiscal surplus (+) or deficit (-). See *Economic Outlook Annex* Table 28 for observations and projections before 1995.

b) Gross financial liabilities according to SNA definitions. It should be noted that this differs from the definition of debt applied under the Maastricht Treaty. See *Economic Outlook Annex* Table 32 for observations and projections before 1995.

c) OECD Secretariat projections to 2000, assuming the successful implementation of the medium-term fiscal plans summarised in Table 14 of the *Economic Outlook* in an environment of sustained recovery and low inflation.

d) Excludes deposit insurance outlays.

e) Refers to fiscal year data ending 30 June. Includes indebtedness of local government towards other levels of general government.

f) Debt figures do not exclude public-sector mutual indebtedness.

Source: OECD Economic Outlook 55

Bibliography

- LEIBFRITZ, W., D. Roseveare and P. Van Den Noord, "Fiscal Policy, Government Debt and Economic Performance", *OECD Economics Department Working Paper*, No.144 (1994)
- RICHARDSON, P., "The Structure and Simulation Properties of OECD's INTERLINK Model", *OECD Economic Studies*, No. 10, Spring 1988
- THURMAN, S., P. Richardson and S. Rauffet, "Recent Comparisons of Multi-Country Model Simulations", *OECD Economics Department Working Paper*, forthcoming (1994)
- TURNER, D., P. Richardson and S. Rauffet, *OECD Economic Studies*, No.21, Winter 1993

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