



OECD Economics Department Working Papers No. 144

**Fiscal Policy, Government
Debt and Economic
Performance**

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Deborah Roseveare,
Paul van den Noord**

<https://dx.doi.org/10.1787/038702083230>

GENERAL DISTRIBUTION

OCDE/GD(94)51

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**FISCAL POLICY, GOVERNMENT DEBT
AND ECONOMIC PERFORMANCE**

**by
Willi Leibfritz, Deborah Roseveare and Paul van den Noord**

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Paris 1994

COMPLETE DOCUMENT AVAILABLE ON OLIS IN ITS ORIGINAL FORMAT

FISCAL POLICY, GOVERNMENT DEBT AND ECONOMIC PERFORMANCE

This paper reviews fiscal policy, government indebtedness and its implications for economic performance in OECD countries. Government debt, expenditure and revenue relative to GDP have all risen significantly over the past 15 years and in several countries these trends are unsustainable. The macroeconomic implications of high fiscal deficits and debt levels are considered and the paper finds that while monetary policy played a clear role in generating recovery, the effects of fiscal policy are more mixed. Looking forward, Member countries' plans for fiscal consolidation are ambitious, but if sustained economic growth is achieved, these plans are achievable. However, if growth is slower, then further fiscal consolidation efforts would be required to keep public debt under control. Finally, the paper considers ways of improving the control over expenditure and the budget process, so as to achieve better fiscal outcomes.

* * * * *

Cet article examine la politique budgétaire, l'endettement public et son incidence sur les résultats économiques dans les pays de l'OCDE. Au cours des quinze dernières années, la dette, les dépenses et les recettes des administrations publiques exprimées en proportion du PIB ont toutes augmenté de façon significative et ces tendances sont devenues insoutenables dans plusieurs pays. Les implications macro-économiques de ces déficits budgétaires et de cette dette élevés sont étudiées et il en ressort qu'alors que la politique monétaire a joué un rôle évident dans la reprise économique, les effets de la politique budgétaire sont plus mitigés. Pour l'avenir, les programmes d'assainissement budgétaires des pays Membres sont ambitieux. Mais, dans l'hypothèse d'une reprise économique soutenue, ces programmes sont réalisables. Toutefois, si la reprise économique s'avère plus modeste, des efforts supplémentaires d'assainissement budgétaire s'imposeront pour contenir la dette publique. En dernier lieu, cet article examine les moyens d'améliorer la maîtrise des dépenses publiques et le processus budgétaire de façon à obtenir de meilleurs résultats budgétaires.

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FISCAL POLICY, GOVERNMENT DEBT AND ECONOMIC PERFORMANCE

Willi Leibfritz, Deborah Roseveare and Paul Van den Noord¹

I. Summary

1. Assessment of the problem

1. There is much concern about the seriousness of the fiscal situation in many Member countries. Nonetheless, the situation has continued to deteriorate: general government gross debt for the OECD area as a whole reached some 65 per cent of GDP in 1993 compared with around 40 per cent in 1979, and debt ratios are currently rising in virtually all countries². This only partly reflects present weak economic conditions; structural deficits also remain large, at 3 to 4 per cent of trend GDP, for the OECD as a whole. The flow of resources being channelled through the general government sector is also rising, with total outlays measuring around 42 per cent of GDP for the OECD as a whole in 1993, compared with some 36 per cent in 1979. The rises reflect, in particular, increases in interest payments, government consumption and transfers.

2. The past growth of general government revenues, expenditure and debt are discussed in Part II. In addition, in virtually all OECD countries the fiscal situation over the longer term is made worse by the financing burden of public pension schemes, which typically are less than fully funded³. Even though the "appropriate" levels of government deficits and debt are difficult to define, the present situation in several countries, and the trends in many others, are not sustainable.

1. The authors would like to acknowledge the useful contributions and comments provided by Mike Feiner, Claude Giorno, Constantino Lluch, Maitland MacFarlan, Howard Oxley and Pete Richardson. Terry Wall of the Public Management Service also provided helpful comments on Part V. Debbie Bloch, Jackie Gardel, Tara Gleeson, Anick Lotrous and Chantal Nicq provided invaluable technical assistance.

2. Unless otherwise specified, the data used in this paper refer to general government and correspond to the data that appear in *Economic Outlook 54*. More recent fiscal developments, such as Japan's fiscal package as announced in February 1994 and the most recent budgets for the United States and the United Kingdom, are not included in the analysis presented here.

3. The present value of future liabilities related to public pensions is estimated to exceed the present value of future contributions (at constant contribution rates) by a margin of around 130 per cent of 1990 GDP on average in the major seven economies. See Van den Noord and Herd (1993).

2. Deficits and the cycle: the experience since 1979

3. The recent recession has again raised the question of how fiscal policy should be conducted. Given the high levels of deficits and outstanding debt, and their upward pressure on interest rates, most countries have found themselves with little or no scope for fiscal stimulus -- and constraints on the extent to which the automatic stabilisers could be allowed to work -- despite the very fast increase in unemployment. Nevertheless, the seriousness of the unemployment situation keeps alive the debate on the role of fiscal policy. The relationship between macroeconomic policy and the cycle is examined in Part III. In virtually all countries, an easing of monetary policy has preceded both the current recovery and that of the mid-1980s. On the other hand, there is no clear association between these recoveries and the stance of fiscal policy, with an almost even split between countries where fiscal policy was expansionary and where it was contractionary in the period prior to recovery.

4. While monetary policy has played a clear role, the effects of fiscal policy on economic activity depend on whether the income multiplier effects outweigh confidence and crowding out effects. This underlines the importance of credible fiscal policy for achieving investment and growth. The confidence effects of fiscal consolidation were particularly important in countries with a critical initial situation -- with high general government debt and/or rapidly deteriorating government finances.

5. Automatic stabilisers have not been allowed to work symmetrically, i.e. in periods of above-average growth as well as in periods of cyclical weakness. In a number of countries, the failure to achieve the fiscal consolidation that would have resulted from the full working of the automatic stabilisers in the boom of the late 1980s, set the stage for the constraints on allowing them to work fully during the subsequent downturn.

6. Whether trade and current balances should be a matter of concern, and, if they were, which policies would be appropriate, lies beyond the scope of the paper. But there is a view that fiscal policy could be used to manage external balances and it has been widely discussed in the 1980s, especially in the context of the U.S. experience (twin-deficit hypothesis) and it has arisen again in the context of the appropriate fiscal stance in Japan. However, experience with medium-term relationships between government and private saving-investment balances and external balances is mixed among OECD countries and the question of causality has to be treated with caution.

3. Plans for fiscal consolidation: the outlook to the year 2000

7. As outlined in Part IV, if medium-term fiscal consolidation programmes are put into effect, and if economic growth in the OECD area recovers steadily through 1994/95 and is sustained during the remainder of the decade at 2 1/2 to 3 per cent per annum, then OECD debt/GDP ratios would stabilise around the year 2000.

8. But if economic growth turns out to be lower than assumed, and if real interest rates stay high, debt/GDP ratios could be growing at an accelerating rate by the year 2000 and high-debt countries would be particularly vulnerable, even if present consolidation plans were implemented. If fiscal authorities respond with even more consolidation, increasing taxes appears to be more costly than reducing expenditure in terms of output and employment effects. Further efforts at consolidating budgets should be based on reducing government expenditure.

9. Even in the most optimistic scenario considered (growth, fiscal consolidation and stability of debt/GDP ratio), unemployment would fall very little relative to present levels. This raises the question of whether macroeconomic policy might be reoriented to achieve faster growth of output and employment and a more rapid fall in unemployment. This issue is also examined in Part IV and the conclusion is that, within the confines of the model used by the Secretariat, better employment outcomes might be attainable over the medium term, but only at the cost of steadily accelerating inflation, which rises to 6 per cent by the year 2000 and increasing beyond that date.

4. Achieving better control of expenditure

10. There may be scope in many countries to achieve fiscal consolidation through better control of government expenditure. Indeed, the increase in structural deficits may be due, in part, to insufficiently rigorous budget procedures or controls and difficulties in reining in growth in entitlements. Overall spending reflects a wide range of spending programmes that are in general divorced from the issues of how to finance them. Furthermore, the costs of fiscal consolidation may be obvious and falling on a particular group, while the benefits of reduced taxes or lower interest rates are spread among many. Programme beneficiaries may use the scope for cost shifting through the political process.

11. Two ways of improving control over expenditure are considered in Part V. First, the effectiveness of budget targets may be improved by making targets more binding and reducing the capacity to shift expenditure and revenue items beyond budgetary control. Second, the reliability of budget projections, as a guide to policy, could be improved -- and upward "drift" in the cost of maintaining existing policies could be better controlled -- through closer attention to the treatment of economic conditions, assumptions about structural factors and stricter rules on the ways of costing new policy proposals before they are adopted.

II. Evolution of Budgets

12. An assessment of the fiscal situation must consider various aspects of the evolution of budgets over a period of several years. A range of fiscal indicators have been discussed in the literature (see Box A) and are described further in Annex 1. Actual deficits are not satisfactory, stand-alone indicators, because they conceal information about the evolution of fiscal positions, including the role of the cycle, the distortions in deficit measurement in periods of high inflation, the working of debt dynamics, the amount of resources being channelled through the general government sector, debt accumulation and the accumulation of physical assets. The fiscal position in individual OECD countries, and their consolidation plans, are examined in the Appendix. The aim of this section is to present a broad, overall view of the evolution of budgets, with and without cyclical adjustment.

1. Deterioration in the 1970s

13. Government deficits widened considerably after the first oil shock. By 1975 the OECD-wide general government deficit had risen to around 4 per cent of GDP (Figure 1). Some improvement followed when economic activity recovered during the second half of the decade: revenue growth picked up and the

BOX A

Fiscal Indicators: Summary Description

Indicator	Description
Cash balance (public sector borrowing requirement)	Cash receipts less cash payments. Includes one-off revenues such as privatisation proceeds.
Financial balance (net lending)	Receipts and payments excluding transactions associated with financial assets. No distinction is made between current and capital flows.
Actual balance	Financial balance "as it happens". Is affected by fluctuations in economic activity.
Structural balance	Financial balance adjusted for effects of cyclical fluctuations of output and employment. Requires assumptions about trend GDP and tax elasticities. Assumes all deviations temporary.
Inflation-adjusted balance	The financial balance adjusted for the portion of debt interest payments that reflects inflation and is therefore equivalent to repayment of debt.
Primary balance	Financial balance, excluding debt servicing costs -- i.e. it excludes inherited portion of financial balance.
Savings	Current revenue less current expenditure. An arbitrary distinction is made between physical capital (excluded) and human capital -- e.g. education spending (included).
Expenditure/GDP and revenue/GDP	Total spending and revenue respectively.
Gross debt	Accumulated financial liabilities against which debt has been issued.
Net debt	Gross debt less financial assets. No allowance is made for non-financial assets, e.g. fixed capital, property rights.
Net worth	All assets less all liabilities (but excluding contingent liabilities such as pensions).

Note: All countries have more than one level of government (federal, central, state and/or local governments) and some activities are not included in budgets *per se*. To maximise consistency across countries, general government statistics are used where possible, following the national accounts definitions used in the *Economic Outlooks*. (See Technical Annex in *Economic Outlook 54*).

growth in spending slowed and by 1977 the overall OECD deficit had fallen to around 2 1/2 per cent of GDP. But there was little overall improvement thereafter. In the United States, spending continued to be restrained in the latter part of the 1970s and the budget was roughly in balance at the time of the 1979 peak. In contrast, the deficit continued to widen in Japan, as spending growth accelerated, and in Europe, higher spending marginally reversed the earlier improvement. The European experience presaged the developments in the 1980s: the increase in spending that occurred during the recession was only partially wound back when economic activity gathered pace towards the end of the decade.

14. Over the 1970s, increases in debt led to higher debt interest payments. Primary spending as a percentage of GDP also sharply increased. By 1979, OECD-wide total government spending had risen by over 5 percentage points of GDP since the beginning of the decade -- with particularly strong increases in Japan (11 percentage points) and Europe (9 percentage points). While the ratio of spending to GDP in 1979 was only 36 per cent for the OECD area as a whole, in Europe it had already reached around 44 per cent. Revenues had also risen, but lagged behind expenditures, averaging 34 per cent of GDP for OECD as a whole and 40 per cent for Europe. There was growing concern amongst policy makers over the potentially distorting effects of government spending programmes and taxes, and there was general agreement on the need to restrain spending growth during the 1980s.

2. Further deterioration since 1979

15. Over the 14-year period from 1979 to 1993, the size of the government sector has increased further, with total outlays rising by around 6 percentage points of GDP for the OECD as a whole. The developments in the 1980s can best be analysed by considering three distinct periods, broadly corresponding to the periods of cyclical weakness from 1979 to 1984 and from 1989 to 1993 and the recovery of 1984-89. After an initial increase in 1979-84, governments limited the growth of spending during the remainder of the 1980s, which, along with some rise in revenues, reduced deficits to around 1 per cent of GDP at the peak of 1989. In the recent downswing, spending as a share of GDP has increased by 4 percentage points, which, with the cyclical weakening in revenues, has led to a widening in deficits, back to the levels of the early 1980s (see Figure 1). Cyclically adjusted deficits, for the OECD as a whole, changed relatively little and are also back to the levels experienced in the early 1980s. But cyclically adjusted revenues and expenditures are now around 3 1/2 to 4 percentage points of trend GDP higher than in 1979 (Table 1 and Figure 2), and gross public debt has increased by around 25 percentage points of GDP, to more than 65 per cent in 1993, while net debt has increased by almost 20 percentage points to around 40 per cent of GDP.

16. Structural revenue increases played a significant role in the reduction of the structural deficit during 1979-84, but played a much smaller role in the subsequent periods. Almost all countries increased revenue on a cyclically adjusted basis despite the slowdown in activity in 1979-84 -- except for the United States where taxes were cut in 1981. During the following years of recovery, 1984-1989, the pattern was more mixed. A number of countries undertook policy reforms that reduced tax revenue as a percentage of GDP on a cyclically adjusted basis and the slowdown in inflation reduced the otherwise automatic growth in revenues associated with fiscal drag.

17. During the most recent period, 1989-1993, OECD-wide revenue growth has been weaker than in the earlier period of cyclical slowdown, even after allowing for the effects of the cycle. Cyclically adjusted revenues have actually fallen as a per cent of trend GDP in a number of countries. There are several possible explanations for this phenomenon. Firstly, with revenue/GDP ratios at higher levels than ten years earlier, governments may have become more reluctant to introduce discretionary tax increases, especially

given voter resistance to further rises and greater awareness of the disincentive effects of higher taxation. To some extent, the disincentives have been reduced by efforts to broaden the tax base and lower top marginal tax rates (although average tax rates have generally risen over the last 15 years). Secondly, income-tax revenues are likely to have been less buoyed by fiscal drag than in the late 1970s and early 1980s. Tax scales have been flattened and a number of countries have indexed their tax systems, slowing the rate of increase in revenue due to inflation. Thirdly, tax reforms may also have reduced the cyclical sensitivity of corporate taxes, through increased provisions for carrying forward losses. At the same time, the use of historical depreciation means that the company tax base has grown more slowly as inflation has slowed. Finally, although it is difficult to measure, growth in the underground economy may also have contributed to slower revenue growth.

18. In the 1979-1984 period of slower activity, debt payments contributed to the sharp rise in spending. This distorts the fiscal picture, as high nominal interest rates included compensation for inflationary erosion of the value of debt (see Annex 1). But as inflation receded during this period, increases in debt payments increasingly reflected real debt accumulation. Transfer payments generally also increased, partly reflecting the fact that they were indexed to prices that were rising faster than the GDP deflator. In addition, in some countries there was growth in real transfers per beneficiary, broader take-up of entitlements and a widening of programme coverage. Government consumption also rose as a share of GDP, mainly reflecting relative price effects.

19. During the recovery of 1984-1989, spending on a cyclically adjusted basis remained largely flat (Table 1). However, significant changes occurred in the composition of expenditure (Table 2). Government consumption tended to decline, with significant constraint exercised on the public-sector wage bill. But in most countries transfers continued to rise, or showed only very modest declines. Although many governments adjusted the conditions for payment of transfers -- *inter alia* by weakening the links with price movements, lowering replacement rates and tightening eligibility criteria -- these measures proved insufficient to control growth in overall transfers.

20. Since 1989, government spending has increased sharply, even on a cyclically adjusted basis. Debt servicing again increased reflecting the build-up of debt. Government consumption was pushed up by a catch-up in public-sector wages that reversed the restraint exercised earlier. Transfers increased, even after allowing for cyclical effects, and in some countries spending on health care has also increased significantly.

III. Fiscal Policy and Economic Performance: Lessons from the Past

21. The recent recession has again raised the question of how fiscal policy should be conducted. Given the high levels of deficits and outstanding debt, and their upward pressure on interest rates, most countries have found themselves with little or no scope for fiscal stimulus -- and constraints on the extent to which the automatic stabilisers could be allowed to work -- despite the very fast increase in unemployment. Nevertheless, the seriousness of the unemployment situation keeps alive the debate on the role of fiscal policy. The purpose of this part is to clarify the discussion of these issues by examining the role of fiscal policy and the policy mix in previous recoveries, and to review the impact of past fiscal policy upon macroeconomic performance. This examination of lessons from the past is complemented, in Part IV,

with an assessment of the likely consequences that announced fiscal consolidation plans will have on unemployment and the debt/GDP ratio up to the year 2000.

22. The current debate on the role of fiscal policy is driven by two different views about how economies work. According to one view, output and employment fluctuate around the potential output growth path. Any loss of output during recession will eventually be made up by faster than potential growth during the recovery. Temporary fiscal expansion is unnecessary and can lead to inflationary pressures. In the second view, there is no tendency for output to cycle around a trend growth path, such a trend is only an *ex post* construct and any loss in output would be permanent. Fiscal stimulus is justified as a way of avoiding this loss in output.

23. Significant changes in trend, or potential, growth rates do take place, and, if they are not recognised in time, as happened with the slowdown in productivity in the 1970s, policy mistakes will follow. Yet, activist fiscal policies that tried to avoid output losses by expanding demand have led to rapid increases in debt/GDP ratios and to unsustainable paths for public finances. Thus, neither view of how economies work provides a failsafe rule for the conduct of policy.

24. The transmission mechanisms between fiscal policy and activity are complex and their net result depends on the income multiplier effects of changes in government revenues and expenditure, changes in private savings behaviour and the reactions of financial markets, particularly as shown by changes in interest rates. Fiscal expansion will be successful in stimulating recovery if income effects outweigh crowding out effects. Conversely, if financial markets react positively to fiscal consolidation, lower interest rates may outweigh its dampening income effects.

25. A number of factors reinforce the confidence of financial markets and their positive response to fiscal policy. First, it is important to have a good track record. The relatively low (net) debt levels maintained by some countries during the 1980s (e.g. Japan, Germany, France, Finland, Norway and Sweden), and the reductions in debt levels in others (the United Kingdom and Australia) helped to enhance credibility of budget authorities and created some room for fiscal expansion in the most recent recession, although this room was severely circumscribed in most cases by increases in actual and in structural deficits in the early 1990s. At the beginning of the current downturn, only Japan had room for significant temporary fiscal expansion⁴. Countries where debt remained high or increased significantly (the United States, Italy, Canada, Belgium, Greece, the Netherlands, New Zealand and Spain) had virtually no room for fiscal expansion, given the risk of an adverse financial market reaction.

26. Second, it is important to have a clear, realistic medium-term strategy to achieve fiscal consolidation. Transparency and easy monitoring are likely to contribute to a positive response by financial markets. The confidence effects of fiscal consolidation have been particularly important in situations where confidence had been very low as a result of rapid increases in general government debt. Two extreme cases (Denmark and Ireland) are illustrated in Box B.

27. These are also preconditions for the successful use of automatic stabilisers. Firstly, if structural deficits and debt levels are already high and/or the medium-term fiscal policy stance is highly uncertain,

4. Japan has adopted three fiscal packages, in August 1992, April 1993 and September 1993 (see OECD *Economic Outlook 54*). This paper does not take into account the most recent fiscal package, announced in February 1994.

BOX B

Confidence Effects of Fiscal Consolidation: Two Case Studies

Two cases which are often quoted as clear demonstrations of confidence effects of fiscal consolidation are Denmark and Ireland in the 1980s (see Giavazzi and Pagano, 1990). The Danish and Irish cases highlight that a "contractionary" fiscal shock may in fact have an expansionary impact if it occurs in a situation which is generally felt to be an "economic crisis", and if it is combined with a credible exchange rate policy (see Giavazzi and Pagano, 1990).

In 1982 Denmark experienced such a "crisis", with long-term interest rates at 22 per cent, inflation at 10 per cent and the gross debt ratio almost doubling within three years (from 27 per cent in 1979 to 53 per cent in 1982). The conservative coalition adopted a draconian fiscal consolidation programme, and the structural deficit fell by almost 10 percentage points of GDP in four years (mostly through higher taxes). Fiscal consolidation was accompanied by credible exchange-rate policies and an abolition of wage indexation. In the wake of these events, GDP grew by 3.6 per year on average in the period 1983-86, and investment grew strongly. House and share prices increased sharply, inflation dropped and long-term interest rates fell sharply.

Ireland went through a similar crisis in 1981, with the gross public debt ratio attaining 77 per cent and the fiscal deficit reaching 12.3 per cent of GDP. The current-account deficit exceeded 10 per cent of GDP. The government pursued a similar type of fiscal policy as in Denmark, but confidence did not recover, house and share prices declined, and real consumption fell by more than 7 per cent in 1982. A second effort by the government in 1987 was more successful. The structural budget deficit declined from 7 1/2 per cent of trend GDP in 1986 to 1/2 per cent in 1989, growth resumed and the debt ratio started to fall. The differences between the first and second efforts were threefold. First, in 1987 the fiscal consolidation relied more on cuts in expenditure and less on tax increases. Second, in contrast to the previous period, the Punt was devalued and the new parity was credible enough to allow a sharp reduction in real interest rates. Third, the recovery in the United Kingdom helped to stimulate exports further.

then an automatic increase in the government deficit may have a rather small or even adverse effect on output and employment. Secondly, it must be possible to -- approximately -- identify cyclical movements in economic activity and to separate cyclical and non-cyclical or structural movements in government deficits⁵. Finally, automatic stabilisers must be allowed to work in both directions, i.e. not only during periods when activity is weak but also -- with their dampening effects -- during periods when activity is strong.

28. The results of INTERLINK simulations designed to isolate the direct demand impact of automatic stabilisers over a typical cycle in OECD countries are given in Figure 3. Comparing simulations with and without automatic stabilisers (ignoring interest-rate differences) suggests that automatic stabilisers could have a direct demand impact that would reduce cyclical output fluctuating by as much as 70 per cent (United States), with the average reduction being almost 40 per cent. The smallest impact would tend to occur in small, open economies (e.g. Greece and Portugal). Different tax and benefit structures thus affect the cyclical sensitivity of fiscal positions and, together with the weight of imports in the economy, affect the impact on output. This means that allowing automatic stabilisers to work may impart a greater degree of fiscal stimulus in some countries than others.

1. Fiscal policy and cycles

29. There have been differing relationships across countries between the stance of fiscal policy and economic recovery. After the 1975 recession, fiscal stimulus preceded the recovery in all major OECD countries (Figure 4). However, during the early 1980s there was no clear pattern. In three major countries (the United States, the United Kingdom and Canada), recoveries were assisted by fiscal stimulus, while in the other four, recoveries occurred despite restrictive fiscal policies. In the present cycle, some of the countries now in recovery eased fiscal policy (i.e. increased cyclically adjusted deficits) in the recession, for example, the United Kingdom, Australia and Norway, while others such as Canada and New Zealand tightened (Figure 5). Among the countries still in recession in 1993, some have eased fiscal policy (France and Sweden), and others have limited the rise in the government deficit by restrictive policy measures (Germany, Italy, Austria, Belgium, Finland, Netherlands, Portugal and Spain).

30. Hence, in the recession of the early 1990s automatic stabilisers in a large number of countries were, to some extent, offset by discretionary policy changes. This was also the case during the boom of the late 1980s. In Germany, the fiscal easing during the boom largely reflected debt-financed public transfers to the eastern part of the country after unification, compounded by the effects of the implementation of the last phase of the tax reform. But also in France (1989/1990), Italy (1990) and the United Kingdom (1989/90), automatic stabilisers were offset by discretionary fiscal policy measures (as reflected by the change in the cyclically adjusted deficit). This was also the case in several smaller countries (e.g. Belgium, the Netherlands and Sweden). This may be the result of governments targeting the *actual* rather than the cyclically adjusted deficit. Fiscal policy, together with some errors in forecasting economic activity, may thus have contributed to the overheating of the economies during the boom. Thus, despite growth in economic activity during the boom, general government debt levels remained high and

5. Given uncertainties about trend output, and about the impact upon the deficit of a reduction in the output gap, estimates of cyclical components of government deficits -- which reflect the built-in stabilisers -- are subject to large margins of error.

even continued to rise in many countries. These limited the scope for letting automatic stabilisers work in the downturn.

31. If another cyclical downturn occurs before a substantial fiscal consolidation has been achieved, the working of automatic stabilisers will again be constrained, especially in EC countries which have to reduce their structural deficits to some 1 1/2 per cent of GDP in order to keep the commitment under the Treaty of Maastricht of a 3 per cent upper ceiling for the actual deficit. In some countries, where cyclical deficits tend to be larger, compliance with the Maastricht criterion would even require a structural budget balance or surplus. Hence, if consolidation fails significantly to improve structural budget balances, any future cyclical weakening might again force countries to prevent automatic stabilisers from working -- at least to some extent.

2. Monetary conditions and recovery

32. Monetary easing has almost always led the recovery in recent cycles. In most countries which have now recovered from recession (e.g. the United States, the United Kingdom, Canada, Australia and New Zealand), the turning point in economic activity was preceded by substantial easing of monetary conditions⁶. In those countries that went into recession later (e.g. continental Europe), monetary conditions have eased less and at a later stage (Figure 6). In those countries where substantial monetary easing has taken place, but recovery is nevertheless not yet apparent, other factors have also been at work. In Japan, a steepening of the yield curve and decline in interest rates has been accompanied by a sharp rise in the exchange rate, while Finland and Sweden have been affected by significant structural pressures.

33. A similar pattern of monetary conditions occurred in the two previous significant recessions (following the OPEC I and OPEC II oil price shocks) (Figures 7 and 8). On both occasions, in five of the seven major OECD countries, recovery was generally preceded by monetary easing, as reflected in a substantial steepening of the yield curve (except in France and the United Kingdom in the early 1980s) and the yield curve had become positive before recovery occurred. In Japan and Italy the pattern was less clear, although not inconsistent with the general picture. Around 1975, the yield curve in both countries steepened sharply for three to four quarters preceding recovery, and recovery took place while the yield

6. As it is difficult to measure monetary easing, two indicators are used:

- 1) The steepness of the yield curve, i.e. the difference between long-term and short-term interest rates. During a relatively stable period of economic activity (e.g. when GDP is growing at its trend rate) one would expect this curve to be slightly positive. However, if a relatively high level of short-term interest rates is perceived by financial markets as temporary -- as generally occurs during periods of deliberate monetary restraint -- the yield curve flattens out and may become inverted, with short rates higher than long rates. Conversely, monetary easing would tend to produce a steepening of the yield curve.
- 2) The level of interest rates. Absolute levels of interest rates can provide additional information on the stance of monetary policy (short-term rates) or the effects of monetary conditions on the economy (short and long-term real rates) -- especially in cases where there is no clear correlation between the slope of the yield curve and interest rate levels.

curve remained inverted only in Japan in 1975. While real interest rates have generally fallen before recovery takes place, the level of real interest rates required to generate recovery is less obvious⁷.

34. The impact of the mix of fiscal and monetary policy varies over the cycle. If the economy is in deep recession, a fiscal stimulus may pose no threat to price stability, although the degree of fiscal stimulus would be constrained by "speed limits" on the reduction in unemployment possible without reigniting inflation. However, if output is close to potential then a fiscal stimulus (whether it arises intentionally or through slippage) may lead to a tightening of monetary conditions, higher interest rates and higher general government debt with little impact on aggregate demand. Conversely, fiscal consolidation would allow for some easing of monetary conditions, and the net impact on aggregate demand may well be positive.

3. Interest rates and fiscal consolidation

35. High debt levels and continuing high structural deficits illustrate that fiscal policy has had effects that last well beyond the cycle, through higher real interest rates. There is some evidence that budget deficits affect the spread between domestic and world interest rates, reflecting financial markets' assessments of the risk that high debt and deficits will lead to either eventual default on debt obligations or the temptation to inflate away the value of government debt (see, for example, Buitert and Kletzer, 1992). Estimates for the United States, France, the United Kingdom and Belgium, for example, show a positive relationship between real interest rates and government deficits (see Cebula and Belton, 1992; OECD, 1989; OECD, 1990; Halikias, 1993; and Al-Saji, 1992)⁸. Econometric analysis on the impact of deficit announcements on interest rates in the United States also seems to confirm such a relationship in the 1980s (see Thorbecke, 1993). On a global level, however, there is not much evidence of a strong direct link between "world" real interest rates and the stance of macroeconomic policy (see OECD, 1989/90, Annex III (1990); OECD 1988/89, Annex III (1989); Barro, 1992).

36. However, real long-term interest rates in European Community countries except Germany, seem to have been systematically lower than might have been expected given the relatively large debt ratios (as compared with other OECD countries) (Figure 9). This may reflect the impact of the EMS. As members of the EMS linked their currencies to a credible low-inflation anchor currency and managed to reduce their inflation rates considerably, declines in risk premia followed. Therefore, EMS countries have been able to maintain relatively high debt/GDP ratios without being more heavily "penalised" by even higher interest rates (see Canzoneri and Diba, 1991).

7. However, if the inflation rates contained a large "surprise" element, then real *ex ante* interest rates may have differed significantly from real *ex post* interest rates.

8. Exercises with overlapping generations general equilibrium models suggest that the impact of fiscal policy on (*ex ante*) aggregate savings and interest rates depends on the time-frame of the fiscal action and the age composition of the population (see Auerbach and Kotlikoff, 1987). A temporary tax cut or expenditure increase would boost the life-time after-tax income and consumption of older generations, but reduce those of younger generations. A long-term fiscal expansion, however, would spur the consumption of all living generations to the detriment of the unborn (who would have to pay more taxes). Long-term fiscal expansion would thus boost interest rates, but the effect of temporary measures on interest rates is ambiguous.

BOX C

Fiscal Consolidation and Ricardian Equivalence

The favourable effects of fiscal consolidation (or the unfavourable effects of fiscal deterioration) will not materialise if the "Ricardian debt-equivalence" theorem holds. This theorem states that changes in the public debt level do not exert an influence on private consumption and aggregate saving and will hence not produce crowding-in (or crowding-out) effects. The reasoning is that private agents fully discount the reduction (increase) in future tax rates that will result from fiscal consolidation (fiscal deterioration) and the associated debt reduction (debt increase). As a result, their life-time consumption profile will be unaffected and the increase (decline) in public saving will be exactly offset by a fall (an increase) in private saving. Ricardian equivalence rests on a number of strong assumptions, including:

- i) full certainty about future taxation and government spending;
- ii) identical planning horizons in the private and the public sector¹;
- iii) full access of households to capital markets, and complete liberty to choose the optimal asset and liability position without being constrained by liquidity considerations.

Nonetheless, Seater (1993) concluded that the Ricardian equivalence hypothesis cannot be rejected on the basis of empirical evidence, and Hutchison (1992) -- who examined the seven major OECD economies -- concluded that a cut in the budget deficit is entirely offset by lower private savings when this cut results from tax increases. When the deficit cut is generated by lower public consumption or investment, there is no saving offset, however, and debt-neutrality would no longer hold (see Hutchison, 1992). Empirical estimates of consumption functions with the government deficit as an argument suggest that Ricardian equivalence is generally not relevant (i.e. in general private consumption responds negatively to fiscal tightening), except in countries with extremely high public debt/GDP ratios such as Belgium and Italy (see Dalamagas, 1992 and Nicoletti, 1992).

1. This assumption is often quoted as a requirement for Ricardian equivalence to hold, but in fact it is not strictly necessary. Barro (1984) demonstrated that all that is needed is a strong bequest motive or "altruism", implying that present generations care about the wealth position of future ones. Evidence for the United States suggests though that the size of bequests is decreasing (see Auerbach *et al.*, 1992). However, even in a world without altruism and bequests, Ricardian equivalence may hold, as a shift from tax to debt financing and the associated reduction in the present value of net future earnings would depress the market value of real assets and hence have a negative real wealth effect on consumption. For the latter argument, see Bailey (1993).

4. Saving-investment balances

37. The issue of links between fiscal policy and external balances is coming again to the forefront of policy debates. If government deficits were offset by changes in private savings (Ricardian equivalence as described in Box C), the issue does not arise. But if private saving-investment balances are relatively stable over the medium term, the change in the government deficit is thus reflected in a change in the total domestic saving-investment balance, i.e. in the current balance of payments. Fiscal policy could thus be used to manage external balances. This latter view was widely discussed in the 1980s, especially in the context of the United States' experience (twin-deficit hypothesis) and it has arisen again in the context of the appropriate fiscal stance in Japan. Whether trade and current balances should be a matter of concern, and, if they were, which policies would be appropriate, lies beyond the scope of this paper.

38. It is, however, interesting to note that in the 1980s there were quite different medium-term patterns of saving-investment balances among the major OECD countries (Figure 10). In Japan, France and the United Kingdom private saving-investment balances (difference between total domestic balance and government balance) declined, while the government balance increased. In Japan and also in Germany the increase in the government balance was accompanied by an increase in the total domestic balance (foreign balance), while in the United Kingdom the total domestic balance declined.

39. Although the question of causality of these developments should be treated with caution, it is likely that until the mid-1980s U.S. fiscal expansion and non-accommodating monetary policy, which led to an increase in interest rates and an appreciation of the dollar exchange rate, contributed to the deterioration of the U.S. trade and current balances leaving the private saving-investment imbalance largely unchanged⁹. Thus, trade and current balances of U.S. trading partners improved, while the investment boom caused a decline of private saving-investment balances in some countries. As these countries reduced government dissaving, it could be argued that this points to a Ricardian equivalence effect. More likely, this development reflected international repercussions of U.S. policies.

IV. Fiscal Consolidation Plans and Economic Performance

40. Many OECD countries have announced targets for fiscal consolidation in the medium term (Table 3). These targets generally aim to reduce, or at least stabilise, debt/GDP ratios in the medium term and they are based on the assumption of a sustained economic recovery. The issues are whether these fiscal

9. For the United States, Turner (1986) found that the increase in the budget deficit during the 1980s was the main source of the increase in the current balance deficit. The increase in real interest rates helped to increase the private saving-investment balance but the effect was limited as the interest elasticities of savings and investment were relatively small. Therefore a good part of the higher budget deficit had to be financed by capital inflows. The dollar appreciated, which reduced business saving and business investment by a similar amount leaving the private saving-investment balance virtually unchanged. In the case of Japan he attributes about half of the improvement in the current balance from 1979 to 1984 to the lower real exchange rate, higher interest rates and cyclical factors and the remainder to higher government net lending. (See also Helliwell (1990) and Andersen (1990).)

consolidation targets are too modest (or too ambitious) and what would be the main fiscal and macroeconomic implications of a change in the pace of consolidation. To examine these issues, a number of macroeconomic scenarios for the period 1993-2000 are elaborated using the INTERLINK model. The reference scenario is a "baseline", which traces a possible path of key macroeconomic variables, on the assumption that economic recovery takes place and current medium-term targets for fiscal consolidation are largely attained. Needless to say, such a "baseline" or reference case is not a forecast, but an illustrative projection of the consequences of fiscal consolidation and the elimination of output gaps.

41. Two sets of questions are also examined in this part. First, if real rates of interest were higher and growth was lower for the rest of the decade, what would be the impact of current consolidation plans upon debt/GDP ratios and unemployment? If additional consolidation was then judged necessary, what are the consequences of achieving it through tax increases, or, alternatively, through expenditure cuts? Secondly, if recovery takes place but fiscal consolidation were less ambitious, what would then happen to debt/GDP ratios and unemployment? For details of the simulations, the reference case and all the different scenarios see Richardson, *et al.*

1. The reference scenario: sustained fiscal consolidation

42. In the reference scenario, GDP growth in the OECD area is assumed to recover steadily through 1994 and 1995 and to average 2 1/2 to 3 per cent per annum between 1996 and 2000. These growth rates slightly exceed estimated potential growth rates, implying a gradual closing of output gaps during the period. Against this background, OECD inflation would average 2 1/2 to 3 per cent and the real long-term interest rate would be around 3 1/2 per cent, implying a fall in nominal long-term interest rates from the 1993 level (7 3/4 per cent). Unemployment would fall from 8 1/2 per cent of the labour force in 1993 to 7 1/2 per cent by the year 2000. In OECD Europe, it would fall from 10 3/4 per cent to 10 1/2 per cent. Thus, the closing of output gaps and fiscal consolidation alone are hardly a remedy for the problem of OECD unemployment.

43. As real long-term interest rates would exceed economic growth by about almost 1 percentage point, stabilisation of general government debt/GDP ratios¹⁰ would require the primary balance to move from a deficit of 1.7 per cent of GDP in 1993 to a surplus of 1 per cent in 2000 (Table 4). The overall OECD general government budget deficit would drop gradually from 4 1/2 per cent in 1993 to 2 per cent in 2000, and the gross public debt/GDP ratio would then stabilise at 72 per cent of GDP.

44. The fiscal positions in the three main zones -- the United States, Japan and Europe -- tend to become more similar than they have been in the past (Figures 11 and 12). In the United States and OECD Europe the deficit/GDP ratio declines, while in Japan it rises. These trends are also reflected in expenditure/GDP ratios, which fall in OECD Europe while rising in Japan. Nonetheless, the shares of both expenditures and receipts in GDP in OECD Europe remain relatively high compared with the United States and Japan. By the year 2000, gross debt ratios are virtually the same in both Japan and OECD Europe, although debt increases more rapidly in OECD Europe over the projection period.

10. In this part, government debt always refers to *gross* debt, unless it is explicitly stated that one should read *net* debt. Net debt is equal to gross debt minus financial assets held by the government, the amount of which is kept constant as a share of GDP in all scenarios.

45. Gross debt/GDP ratios for individual countries show widely diverging patterns: relatively stable debt/GDP ratios of between 60 to 90 per cent for Germany, France, Denmark, Ireland, the Netherlands, Portugal, Spain and -- outside the European Community -- Canada, Austria, Finland and Norway, and relatively stable debt/GDP ratios at levels exceeding 100 per cent for Italy, Belgium and Greece (Figure 13). The situation is particularly worrisome in Sweden where the debt/GDP ratio would double from around 60 per cent in 1993 to 120 per cent by the year 2000. Despite rising to around 40 per cent over the next few years, the Australian debt/GDP ratio would remain among the lowest in the OECD area.

46. The improvement in government net lending as assumed in the reference scenario in most OECD countries (with the notable exception of Japan) goes hand in hand with a broadly equivalent decline in the saving-investment balance of the private sector (Figure 14), largely correcting disequilibria that have been building up in the past. In the past recession, high government deficits implied a net dissaving in the general government sector, while savings persistently exceeded investment in the private sector. The assumed reversal of this trend in the reference scenario is the combined effect of fiscal consolidation and a strong recovery in private investment. In most countries, these are mutually offsetting, so that total domestic saving-investment balances (i.e. external current balances) remain broadly unchanged. There are a few countries, though, where the external balance either deteriorates (Ireland) or improves (Finland, Sweden).

2. A low-growth scenario

2.1 *The implications of weaker growth*

47. If future growth is weaker than projected in the reference scenario and real rates of interest higher (reflecting lower confidence and higher uncertainty), fiscal consolidation becomes much more difficult (scenario 1A, see Table 5). Were output growth to be 1/2 a percentage point lower per year (as compared with the reference scenario), implying a 2 to 2 1/2 per cent growth rate on average during the projection period, and real interest rates between 4 and 4 1/2 per cent, there would be a debt/deficit "snowball", and debt/GDP ratios would grow at an accelerating rate by the end of the century. By the year 2000, the OECD-wide debt/GDP ratio would exceed the baseline level by around 10 percentage points, with wide differentials between the individual countries (Figure 15). Countries with initially high debt/GDP ratios also tend to have the largest increase in this ratio in the low-growth scenario, ranging from around 5 percentage points higher than the reference scenario by 2000 for Norway and Japan to almost 20 percentage points higher for Belgium. This illustrates the particular strength of the deficit/debt vicious circle in high-debt countries.

2.2 *The policy response*

48. If authorities are unwilling to accept such weakening of fiscal positions, they could respond by cutting expenditure and/or increasing taxes. Alternative low-growth scenarios have been simulated under a range of monetary assumptions. These alternative scenarios assume a progressive adjustment of fiscal balances from 1996 towards the original medium-term reference scenario levels in 2000.

49. If these additional fiscal consolidation efforts were undertaken, it is reasonable to assume some easing of monetary conditions. If, for example, real interest rates are assumed to fall by 70 basis points on average for the OECD area as a whole (with some variation across countries) then the necessary

adjustment might be possible without having major consequences for growth and employment. In the absence of such monetary easing, the fiscal adjustment is large in real terms and would have significant negative effects on the real side of the economy.

50. According to the simulations, consolidation through higher taxes appears to be more costly in terms of GDP, inflation and unemployment effects than consolidation through expenditure cuts (Table 6). In both variants, by the year 2000 output is lower than in the low-growth scenario without fiscal action, but in the tax-increase variant the decline is more pronounced. The reason is that, in contrast to expenditure cuts, tax increases tend to increase inflation and hence produce negative effects on real wealth, private demand and on government's debt servicing costs.

51. It is important to note that, although the fiscal adjustments assumed in these scenarios (spending cuts or tax increases) are large, they are nonetheless insufficient to stabilise debt/GDP ratios during the projection period (Figure 16). Although fiscal deficits finally return to their reference scenario levels by the year 2000, they exceed them during most of the projection period. By the year 2000, the debt/GDP ratio exceeds the level in the reference scenario by about 5 percentage points but is about 5 percentage points below the level attained in the low-growth scenario without fiscal action (again these number are OECD-wide averages and considerably larger for high-debt countries).

3. Fiscal "stimulus" (less consolidation) scenarios

52. Both fiscal and monetary policies, set in the framework of the control of monetary aggregates, are likely to exert only temporary effects on activity and employment. The cost of any sustained reduction in the unemployment rate would necessarily be reflected in a higher and accelerating rate of inflation. Hence on the assumption that current monetary policies are largely set to rein-in inflation over the medium term, there appears to be little opportunity to exploit any short- to medium-term trade-off between inflation and unemployment. INTERLINK scenarios of fiscal stimulus illustrate these conclusions (Table 7).

53. These scenarios assume less fiscal consolidation than currently planned (government consumption is increased by 1 per cent of GDP throughout the projection period) under three sets of monetary conditions. Scenario 2A assumes -- as compared with the reference scenario -- long-term interest rates to be unchanged in real terms, while Scenario 2B assumes that real rates decline (as nominal rates are fixed and inflation accelerates). Scenario 2C assumes an increase in real interest rates of the order of 1 1/2 to 2 per cent during the projection period. For reasons explained below, for most countries the third scenario is more relevant under present circumstances than the other two. The second scenario (lower real interest rates) is the least likely one and it has been included here, mainly to illustrate the sensitivity of the results to the different assumptions. The scenarios show that if real rates of interest fall, growth is higher and unemployment is lower than in the reference scenario, but inflation accelerates. If real interest rates remain unchanged, growth is initially higher, but then becomes slower than in the reference scenario, while unemployment rates return to baseline levels. Inflation stabilises at a permanently higher level. If real interest rates are higher, output growth is lower and by 2000 unemployment is higher than in the reference scenario. Inflation is again higher, although it slows by 2000.

54. The impact of fiscal expansion on government deficits and debt is also highly dependent upon the interest-rate profile (Figure 17). In the case of unchanged real interest rates, government net lending progressively deteriorates -- by 1 1/2 per cent of GDP at the end of the projection period on an area-wide

basis -- and the debt/GDP ratio ultimately increases by some 3 1/2 percentage-points. In the case of rising real interest rates, the deterioration of the deficit is much stronger and amounts to almost 3 percentage points in 2000. The debt/GDP ratio is almost 8 percentage points higher in 2000 as compared with the reference scenario¹¹.

55. These simulation exercises suggest that the impact of fiscal policy on the macroeconomic performance of a country heavily depends upon the behaviour of interest rates. An expansionary fiscal policy stance -- compared with the reference scenario -- is likely to trigger a move towards higher real and nominal interest rates if actors in financial markets believe that such a stance cannot be sustained and raise inflationary expectations. Most countries now face serious fiscal problems exacerbated by the recent recession, and are not in a position to pursue (further) fiscal expansion in a credible manner. In these countries, fiscal expansion would presumably have adverse effects on private-sector confidence and interest rates, and would merely slow down economic growth. In such cases fiscal consolidation should have the highest priority, especially since it could yield a "dividend" in the form of lower nominal and real interest rates.

V. Budgetary Processes and Expenditure Control

56. If consolidation targets are to be met, tighter control over discretionary spending and reconsideration of entitlement programmes will be necessary. But many entitlements have acquired the status of property rights and withdrawing them may meet resistance because the costs of cutting programmes will tend to be obvious and fall on particular groups while the benefits of reduced taxes or lower interest rates are spread among many. The political economy of budgetary processes will be a subject of increasing interest in the years to come, as special interest groups compete for public expenditure programmes within tighter budget constraints.

57. One approach would be to examine the reasons why spending seems to have become dislocated from funding considerations in some countries and look at ways of bringing spending within available funding¹². Despite the difficulties in quantifying the strengths of different political systems and budgetary processes, there are now several studies that show a correlation between poor fiscal outcomes and weak political systems. Roubini and Sachs (1989) analysed the relationship between weak forms of government and a tendency to higher ratios of net debt to GDP. Grilli *et al.* (1991) also found that the electoral process and political traditions affect the ability of governments to deal with deficits and mounting debt, finding that governments of short duration tended to have greatest difficulty. Von Hagen (1992) found a

11. On the other hand, in the case of fixed nominal (but -- as inflation increases -- falling real) interest rates, the deficit increases from 1994 until 1996, but progressively declines thereafter. The latter result essentially arises because part of the government debt is "inflated away", such that the debt/GDP ratio ultimately falls by some 8 percentage points compared to baseline.

12. For example, in the United States, the Omnibus Reconciliation Acts 1990 and 1993 require that new discretionary initiatives be offset with compensatory savings elsewhere, as a way of enforcing tighter budget constraints.

relationship between weak budget processes more specifically and poor fiscal outcomes. De Haan *et al.* (1992) also found that frequent changes of government were well correlated with poor fiscal outcomes.

1. Making budget targets more effective

58. In order to resist pressures for more spending, most OECD countries have set themselves some sort of global budget target, either as a ratio to GDP (of the deficit or debt), or as a rate of change or as an absolute value. This is beneficial if the medium-term target clearly signals the direction of government policy, if the target is judged credible, and if it can be monitored. But it is harmful if failure to meet the target results in a severe penalty from the financial markets. Also, the more constraining the target is, the more it encourages "deceptive" fiscal practices. These can be limited by strict rules that define the boundaries of government control and require that all activities under government control are accounted for in a consistent and consolidated manner. But adoption of such rules would require a genuine commitment at political level to removing the scope for less transparent practices.

59. It is very difficult to determine what are the optimal levels of debt, expenditure, revenue and deficits that should serve as targets¹³. The literature does not provide much guidance either. Even the Maastricht criteria are judged by some to be arbitrary and in any case only provide a minimum criteria to be met and do not imply that these criteria represent optimal conditions¹⁴. What matters more is that the target is credible and achieved over the medium term. Given the widespread view that some fiscal consolidation is necessary in almost all OECD countries, current targets (as described in Table 3) are unlikely to overshoot ideals. By imposing an overall constraint on spending and taxation, attention can be paid to getting the best mix of policies and results for the money spent -- improving the quality of government spending (see *Economic Outlook 54*).

60. Most OECD countries have adopted fiscal targets over the past decade as illustrated in Table 3. But studies by the Secretariat (OECD, 1987) show that countries have had to revise and re-specify their targets as time has gone by. Failure to meet targets seems only partly due to economic conditions¹⁵. Empirical evidence is scarce, but one econometric analysis of the value of targets, by Von Hagen *et al.*, finds that they do not significantly improve fiscal outcomes, although this work did not take account of

13. Some (for example, Leonard (1986)) would argue that what matters is whether the current scale of government activities is the scale of activity that taxpayers and voters want. If it is not, then government is too large (or too small). But this apparently simple rule requires full accountability of governments and the absence of budget illusion. These questions lead into important issues about political economy and public choice which are beyond the scope of this paper.

14. The Maastricht criteria of deficits was chosen so that, with nominal growth of 5 per cent and no new government lending to the private sector, deficits of 3 per cent would stabilise the gross and net debt/GDP ratio at 60 per cent. Higher deficits would lead to an ever-increasing share of interest payments. (In equilibrium the following equation holds: net debt/GDP ratio = gross debt/GDP ratio = deficit/GDP ratio ÷ nominal GDP growth rate.)

15. While targets have not been particularly effective at a macroeconomic level, they have nevertheless been useful as a management tool at a more disaggregated level by focusing attention on the need for priority setting, expenditure reallocation and on efficiency.

cyclical factors. But notwithstanding the difficulties experienced, achieving significant fiscal consolidation requires a strategy and a plan to get there. Can targets be enhanced by making them binding?

61. Building budget targets into law to make them more binding has had mixed success. The states of the United States provide perhaps the most obvious examples of where constitutional or legislative limits (on deficit spending in particular) have been adhered to. At the federal level, legislative limits have been less successful. Despite the Gramm-Rudman Hollings legislation, the federal deficit was \$230 billion larger, over the period 1986-1989, than allowed for under the original targets. It also is considered to have led to increased use of "deceptive" budget practices (see Schick, 1990)¹⁶. The Omnibus Budget Reconciliation Act (1990) did constrain discretionary spending, but overall budget consolidation was not achieved, due to slippage in areas that lay beyond the jurisdiction of the Act, especially expenditure for health care and other major benefit programmes, debt servicing and revenue from taxation. Despite the most recent progress made in the United States by the current administration, Congress is again considering a "Balanced Budget" amendment to the Constitution as a way of further constraining debt accumulation.

62. Canada's Federal Government, on the other hand, has chosen to control expenditure, rather than the deficit, through legislative limits. The Expenditure Control Act of 1990, reduced, froze or limited spending growth in every area except major transfers to households (which increased by 3 percentage points between 1990 and 1992, due largely to cyclical conditions) and equalisation payments to provinces. This was followed by the Spending Control Act of 1992 which limited programme spending to the levels projected in the 1991 budget, until 1995/6. So far, these spending targets have been met, despite increases in some spending programmes requiring further, offsetting reductions in others. Although it is too early to reach firm conclusions, this legislation may be contributing to containing expenditure. Nevertheless, economic conditions, weak revenue growth and budget deteriorations at the provincial level have all contributed to an overall deterioration in the general government deficit, despite the controls on federal spending.

2. Improving budget projections

63. Most countries now use some degree of forward planning in their budget process. The starting point for such an exercise is generally a forecast of the fiscal situation three to five years ahead based on the costing of existing policies -- the "baseline". This baseline generally provides an indication of how much effort will be necessary to achieve a given consolidation target, and can provide early warning signals. However, a shifting or unreliable baseline would make achieving fiscal goals more difficult, especially if the baseline keeps "slipping" and each set of projections presents a worse fiscal outcome than the previous one (see Stockman, 1986; Task Force on Management Improvement, 1992; OECD, 1993).

64. A reliable baseline must distinguish between economic conditions that are cyclical from those that tend to be structural, at least in their effect on the budget. It is important to ensure that a spending increase associated with a cyclical downturn does not get spent on other programs as the cycle improves, resulting in cyclical deficits becoming structural. Furthermore, price effects must be considered. The cost of

16. Schick's assessment is that before Gramm-Rudman Hollings, four or five dollars of genuine consolidation was achieved for each dollar of "faked" savings. Subsequently, the ratio was reversed.

government services has risen faster than general inflation (relative price effect)¹⁷ and some argue that this is inevitable, given the nature of public services and difficulties in improving productivity. Yet some countries (e.g. the United Kingdom and New Zealand) have focused on productivity improvements in the public sector, by limiting the growth in nominal spending to less than the general rate of inflation. The United Kingdom's early efforts with using cash limits to achieve this, however, were not entirely successful: some services have not been delivered as expected due to the cash constraint and capital expenditure does seem to have suffered (see Likierman, 1990). One area where cash limits seem to have been particularly ineffective is in controlling public-sector pay increases: these seem to have a considerable bounce-back capacity (Oxley and Martin, 1991; and *Economic Outlook* 54). Given the size of the public-sector wage bill in most countries, assumptions about public-sector wages are important. In recent years, both the United Kingdom and New Zealand have placed greater emphasis on ways of ensuring delivery of output and maintenance of services, so as to ensure that productivity gains are realised.

65. Assumptions about inflation also affect cash benefit rates. In some instances, formulae for increasing benefits -- usually linking benefit increases to either general wage increases or to the cost of living as measured by the consumer price index -- are automatic and set in legislation. In other instances, the adjustment is discretionary and forms part of the overall budget package. However, although significant savings could be achieved by not fully applying these adjustments, this is politically difficult to do, whether the adjustments are discretionary or automatic. Withholding these adjustments would affect a significant range of people, who are often considered to be those most in need of help from the government, and the government can easily find itself accused of inequity.

66. Projections for government outlays are dependent on assumptions about the structural parameters affecting underlying trends in transfer payments (and some discretionary spending). These include demographic assumptions, and assumptions about the number of people becoming eligible for benefits (i.e. take-up rates). Where entitlements are set in legislation, the baseline estimates can do little more than indicate where and when action is needed, as these expenditures are beyond the direct control of the budget process. If institutional arrangements or political realities prevent reconsideration of these entitlements, fiscal consolidation will be much more difficult to achieve, since greater savings will have to be found elsewhere (see Stockman, 1986).

67. There may be more risk that costs escalate if the policy decisions focus only on the broad parameters of the policy rather than specifying the details (see Keating and Rosalky, 1990). Another risk is that once a policy or programme has been adopted, public expectations may make it difficult to cancel, even if costs become significantly higher than were expected. Another source of risk arises when new policy costings rely heavily on assumptions. Multi-year budgeting can reduce the scope and incentive to engage in back-loading of policies -- adopting a policy that initially costs very little but has capacity to grow rapidly in the future¹⁸.

68. One way to deal with these risks would be to establish stricter rules for the costing of proposals, including a requirement to set out all assumptions and provide a sensitivity analysis of these assumptions. As a starting point, more systematic efforts to track whether proposed policy costings are subsequently

17. Leonard (1986) estimates that even on conservative assumptions nearly half of nominal post-war expansion in public spending in the United States represents this relative price effect.

18. See the description of Treasury norms in the United Kingdom, in Wildavsky (1986) pp. 94-95.

realised could draw attention to areas where policy costing methods could be improved. Providing an opportunity for outside experts to assess policy costings might also help to quantify the risks and increase transparency. Making the consequences of inappropriate costings more obvious might also help to encourage better costings of budgetary proposals.

Appendix

Budget Outcomes and Medium-term Plans¹

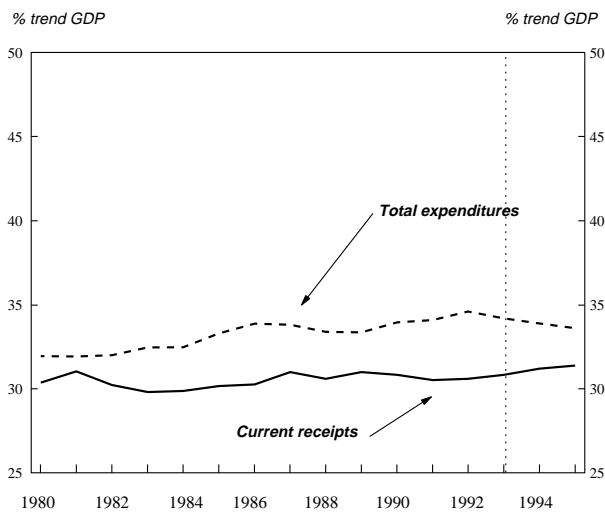
United States

1. The United States experienced steady deterioration in its fiscal position during the 1980s and early 1990s. The general government structural deficit increased from 1.6 per cent of GDP in 1980 to 4.0 per cent in 1992, and then fell to 3.3 per cent in 1993. Total outlays have risen since 1980 by 3 percentage points of GDP to around 35 per cent of GDP, and an increasing share of expenditure went into entitlement programmes. The rapid rise in entitlements is a particular cause for concern, given the fundamental programme changes required to rein them in. Receipts, in contrast, have remained around 31 per cent of GDP since 1987. Gross public debt has risen steadily from 38 per cent in 1980 to 63 per cent in 1993. With some 2 per cent of GDP now being spent on debt servicing, debt levels are reaching uncomfortable levels, especially since the increase in debt has not been matched by additional physical assets.

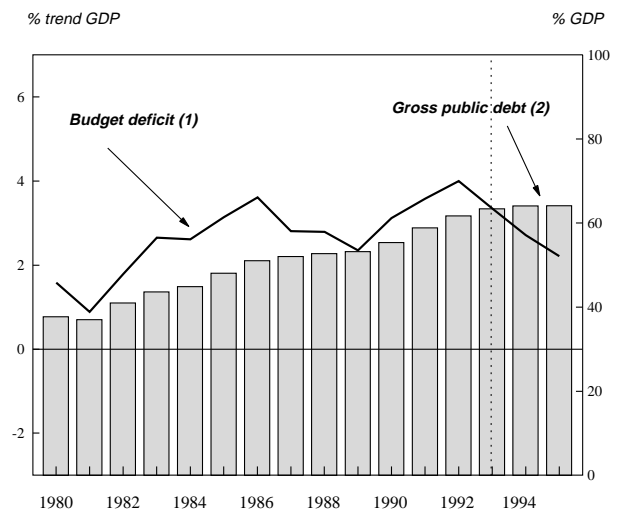
2. The 1993 Omnibus Budget Reconciliation Act (OBRA93) calls for a cumulative cut in the federal deficit of \$500 billion in the next five years, involving approximately equal contributions from increased taxation and reduced spending. This would produce a fall in the federal budget deficit from \$290 billion (nearly 5 per cent of GDP) in FY 1992 to \$180-200 billion (around 2 1/2 per cent of GDP) by FY 1997/98. These targets are to be attained in an environment of a 2 1/2 per cent average economic growth. Latest developments suggest these targets may be reached ahead of schedule. At the state and local level, a gradual improvement in budgetary positions may be envisaged as well, as these jurisdictions will have to reverse the deterioration they have experienced in recent years. Ultimately, the state and local surplus may reach around 1 per cent of GDP, which would imply a general government deficit of 1 to 2 per cent of GDP.

Trends in general government finance in the United States

A. Cyclically-adjusted revenue and expenditure



B. Cyclically-adjusted budget deficits and debt



1. As a percentage of trend GDP (left-hand scale)

2. As a percentage of GDP (right-hand scale)

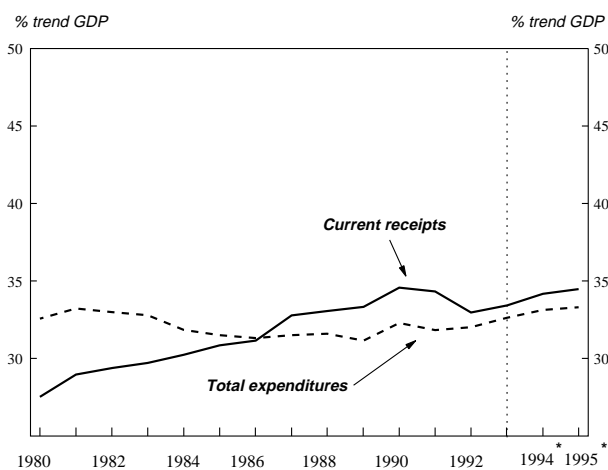
Japan

3. Throughout the 1980s and until 1992, general government expenditure remained steady as a share of GDP, at around 32 per cent. However, revenue as a share of GDP has increased from around 27 per cent to 33 per cent over the same period. The result has been a move from fiscal deficit to surplus, and lower debt ratios: gross debt peaked in 1987 at 75 per cent of GDP before falling back to around 68 per cent. A further feature of the Japanese fiscal position is the high rates of government investment, averaging around 5 per cent of GDP during the 1980s and early 1990s. While these indicators present a largely healthy picture of public finances, they do not include unfunded public pension liabilities, estimated to be around 200 per cent of GDP. Given the demographic patterns in Japan, the impact of such liabilities on actual expenditure will be felt sooner than in most other countries. A degree of caution should be exercised in interpreting the fiscal positions for Japan. If the activities of the Fiscal Investment and Loan Programme (FILP) are taken into account, the public-sector borrowing requirement was 4.6 per cent of GNP, and net debt was nearer 25 per cent of GNP in 1992 compared with around 5 per cent of GNP, without the FILP (see OECD Economic Survey of Japan, 1993).

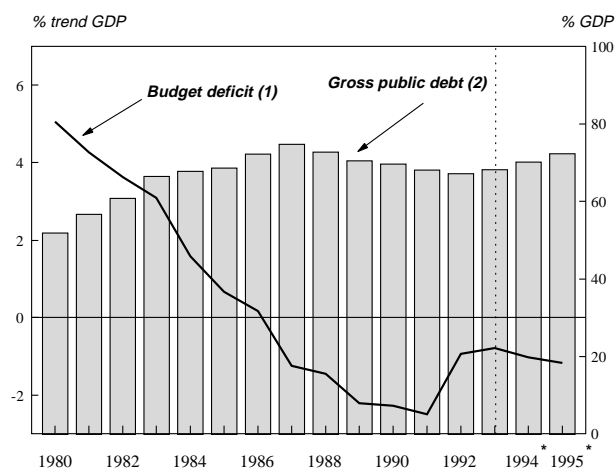
4. Since 1992, Japan has shifted its fiscal stance, by introducing fiscal stimulus packages in August 1992, April 1993 and September 1993 (see *Economic Outlook* 54). As a result, outlays as a share of GDP rose by an estimated 2 percentage points between 1992 and 1993, and Japan moved into fiscal deficit for the first time since 1986. In February 1994, Japan announced another fiscal stimulus package, comprising tax cuts and additional expenditure, which has not been taken into account in this paper.

Trends in general government finance in Japan

A. Cyclically-adjusted revenue and expenditure



B. Cyclically-adjusted budget deficits and debt



1. As a percentage of trend GDP (left-hand scale)

2. As a percentage of GDP (right-hand scale)

* Excluding the fiscal package announced in February 1994.

European Community

5. Across the European Community, fiscal difficulties are widespread:

- Throughout the 1980s, *Germany* reduced its structural deficit substantially, while current receipts largely covered current (non-capital) expenditure. The deficit reduction was the result of government spending declining as a share of GDP while revenues remained flat. However, unification led to a rapid deterioration of the fiscal situation after 1990. By 1993 cyclically adjusted spending had returned to its previous peak level of around 50 per cent in 1979-81, while cyclically adjusted revenues were around 47 per cent -- also above previous levels. German debt levels are moderate at 46 per cent of GDP, but if the unification-related off-budget liabilities (especially Treuhandanstalt) are included, the debt burden is much heavier. Debt interest payments are heading towards 4 per cent of GDP.
- Until 1992, *France* maintained a relatively stable fiscal position, with positive savings, broadly in line with government investment (at 3 per cent or above). Thus the debt accumulation that had occurred had been matched by an increased stock of general government-sector fixed assets. However, in the last two years, the structural deficit has widened and the social security system is coming under increasing pressure.
- The *United Kingdom* achieved a significant debt reduction through most of the 1980s, but in the early 1990s expenditure mounted to the same levels as were recorded in the early 1980s, reversing the trends of the 1980s. In contrast, *Ireland* has kept its expenditure well below its peak in 1985 and 1986, allowing a debt reduction from its peak of 117 per cent in 1987 to just over 90 per cent in 1993. After a series of high deficits in the early 1980s, *Denmark's* position has stabilised, although larger structural deficits are again emerging. However, receipts and outlays are amongst the highest in the OECD.
- The fiscal positions of *Italy*, *Belgium* and *Greece* are disturbing on the basis of most key indicators: debt exceeds 100 per cent of GDP and is still rising, tax receipts are around 45 per cent of GDP, and debt servicing costs are now greater than 10 per cent of GDP. Italy's fiscal stress is compounded by the unfunded pension liabilities which are estimated as the highest amongst the major seven economies (some 250 per cent). In Italy, inflation has to some extent overstated the size of the fiscal deficit, (see Annex Table A3), but even the inflation-adjusted deficit was greater than 5 per cent of GDP in 1993.
- Debt ratios have drifted upward in the *Netherlands* and *Portugal* as well as in *Spain*, where they are giving rise to serious concern. Although expenditures and revenues have increased over the years, Portugal and Spain still have moderate revenue ratios.

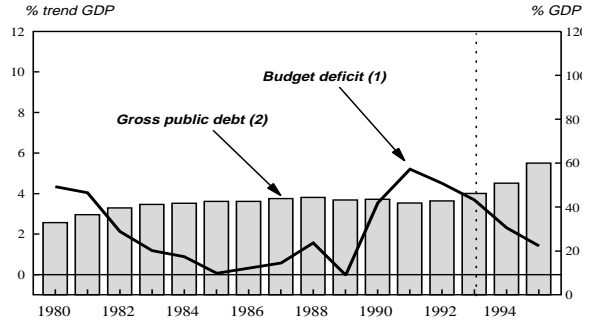
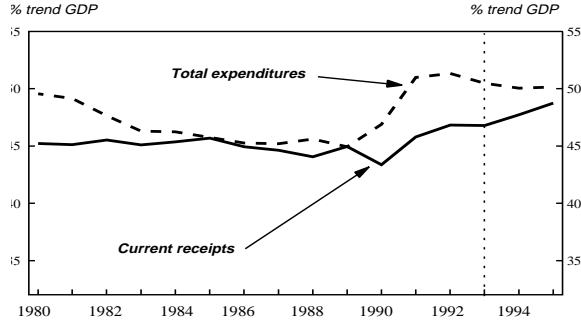
6. Achieving the Maastricht targets now clearly has a high priority in all countries of the European Community (see Table 3 for more details on the announced medium-term fiscal consolidation programmes). After restrictions on free movement of capital were abolished in Stage I of economic and monetary union ending 1 January 1994, convergence of general government deficits to a maximum of 3 per cent of GDP, and of general government debt towards 60 per cent of GDP is envisaged in Stage II², following multiannual programmes developed in Stage I, which are monitored by the European Commission in Stage II. However, government deficits and debt levels can be higher if government current expenditure

Trends in general government finance in Europe

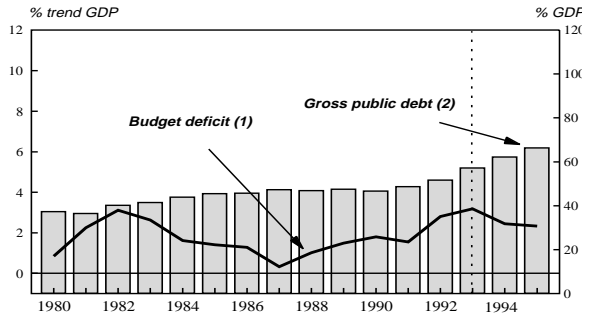
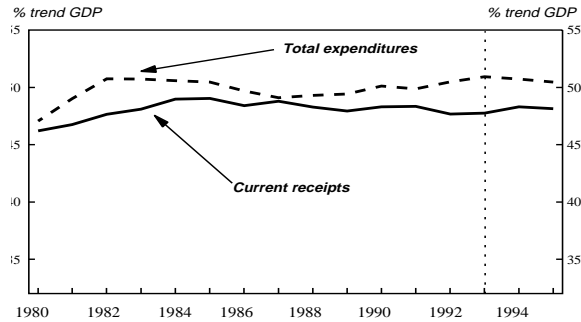
A. Cyclically-adjusted revenue and expenditure

B. Cyclically-adjusted budget deficits and debt

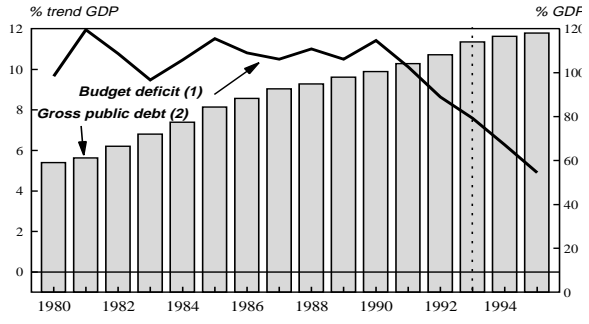
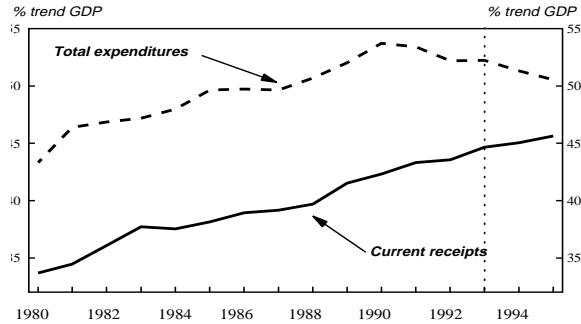
Germany



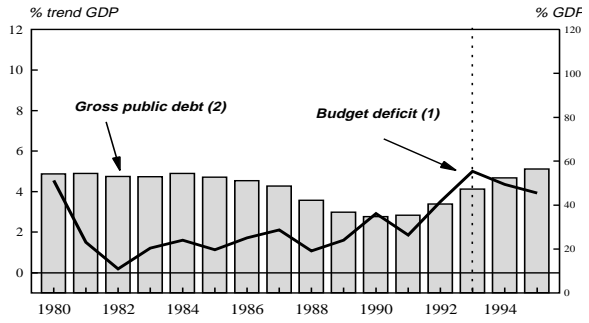
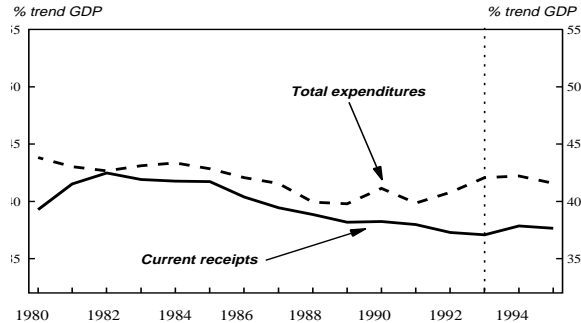
France



Italy



United Kingdom



1. As a percentage of trend GDP (left hand scale).
2. As a percentage of GDP (right hand scale).

is not being financed by debt creation (i.e. if the "golden rule" is respected) and the debt/GDP ratio is approaching its target. By 31 December 1996 at the latest, a decision must be taken as on when Stage III will start. Stage III involves the establishment of a single currency provided that the fiscal and other economic criteria are attained, and it should begin not later than 1 January 1999.

7. Nonetheless, a number of countries will be unable to meet the Maastricht 60 per cent debt/GDP target before the end of the century. This is the case for *Italy* in particular, even though the new "Convergence Programme" (July 1993) would allow it to reverse the rising trend of general government debt after 1995. Among the smaller countries in the European Community, *Belgium* requires particularly severe fiscal stringency to meet the deficit target, while it is practically impossible to meet the debt target before the end of the century. Nonetheless, the "Plan de Convergence" targets the general government budget deficit at 3 per cent of GDP in 1996. In *Greece*, *Portugal* and *Spain*, too, formidable fiscal stringency is required, but is unlikely to be successfully implemented in the first of these countries given the experience in the past. Although Greece's high structural deficits (peaking at 18 per cent of GDP in 1989 and 1990) to some extent reflect measurement distortions due to inflation, even the inflation-adjusted actual deficit was more than 5 per cent of GDP in 1993, and is projected to increase to around 8 per cent in 1994 and 1995 (see Annex Table A3).

Other Countries

8. The fiscal situation in *Canada* has deteriorated significantly over the 1980s and early 1990s. Current expenditures and revenues were about equal in 1980, at around 38 per cent of GDP, but by 1993 the current expenditure ratio had climbed to over 48 per cent, while the revenue ratio had risen less rapidly to around 42 per cent, giving significantly negative government savings. It is striking that social security payments have risen by 4 percentage points of GDP between 1989 and 1993 alone, largely reflecting cyclical conditions. Net debt has risen from 12 per cent in 1980 to 60 per cent in 1993 and gross debt in 1993 is close to 90 per cent. Debt interest payments are now also very high, at nearly 10 per cent of GDP. In addition, Canada's unfunded pension liabilities are estimated to amount to around 120 per cent of GDP. The most recent Spending Control Act in Canada was intended to eliminate the federal deficit by FY 1997/98 (assuming projections of economic growth were realised), but since those projections were made, significant fiscal slippage has occurred despite tight controls on spending, due to revenue shortfalls. The new Government intends to bring the federal deficit down to 3 per cent of GDP by 1996.

9. *Australia's* fiscal position has been relatively healthy throughout the 1980s and early 1990s despite recent structural deficits. In *New Zealand*, the central government deficit has fallen to less than 3 per cent of GDP, after peaking at 7 per cent in 1984, and is projected to reach balance by FY 1995/96. But gross debt remains high at over 60 per cent of GDP.

10. Countries of non-EC Europe, except *Switzerland*, are characterised by large public sectors with high ratios of expenditure, revenue and gross debt to GDP. *Sweden* is currently in major fiscal distress with a deficit of nearly 15 per cent of GDP in 1993. Sweden ran large structural deficits during the early 1980s, although a return to structural balance during the late 1980s permitted some reduction in the debt ratio from its peak. Since then, current gross debt levels have again risen to around 67 per cent of GDP. In addition, Sweden has one of the highest revenue and spending ratios to GDP, with total outlays exceeding 70 per cent of GDP. *Finland* and mainland *Norway* also have high spending and revenue ratios and have recently both run high deficits. Although some part of Finland's current budget deficit is cyclical,

there may be some question about how rapidly and how far the fiscal deterioration will be reversed when the economy recovers. While Norway's overall fiscal situation looks much better, this reflects revenues from oil and gas corresponding to a reduction in assets and sovereign net worth. Fiscal policy in Finland and Sweden aim to restore market confidence after the difficulties of recent years through substantial consolidation efforts.

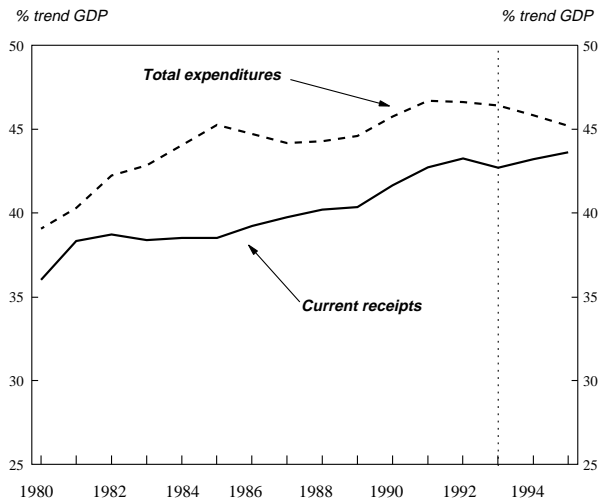
11. *Austria* has run persistent deficits throughout the 1980s and early 1990s, but has also run a surplus on savings. The increase in the debt ratio seems to be largely offset by the unrecorded increase in the government's stock of physical assets. Current revenues and expenditures are relatively high, ranging between 45 per cent and nearly 50 per cent. For its part, *Iceland* has managed to keep its Treasury deficit under reasonably good control, given the economic stagnation of the past six years, but general government debt has nonetheless been rising fairly rapidly in relation to GDP.

Notes

1. See Annex for additional country data.
2. It should be noted that the definition of debt applied under the Maastricht Treaty differs from that used by the OECD. "Harmonised" debt, the criteria used for Maastricht, uses a different approach to consolidation of debt between sub-sectors of government, and it excludes debt to the IMF and debt to finance public enterprises. For some countries harmonised debt is higher than OECD gross debt and for other countries it is lower.

Trends in general government finance in Canada

A. Cyclically-adjusted revenue and expenditure



1. As a percentage of trend GDP (left-hand scale)
2. As a percentage of GDP (right-hand scale)

B. Cyclically-adjusted budget deficits and debt

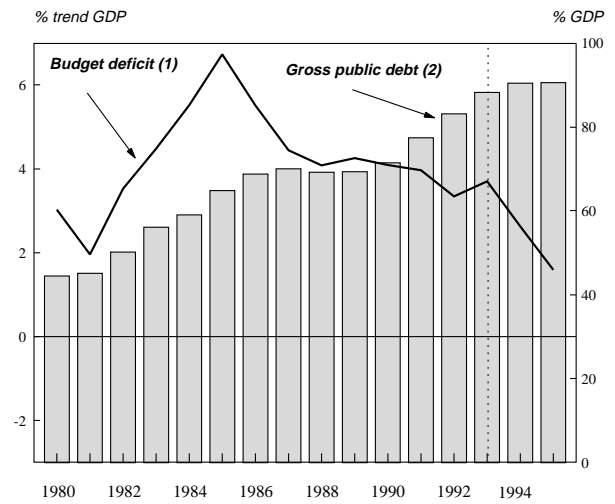


Table 1. Changes in cyclically-adjusted general government revenues, expenditure and budget balances

as a percentage of trend GDP

	Current revenues	Total expenditure	Balance		Current revenues	Total expenditure	Balance
United States				Denmark			
1979-84	-0.6	1.2	-1.8	1979-84	4.7	4.9	-0.2
1984-89	1.1	0.9	0.3	1984-89	2.7	-1.3	4.0
1989-93	-0.2	0.8	-1.0	1989-93	-1.5	0.0	-1.5
1979-93	0.4	2.9	-2.5	1979-93	5.9	3.6	2.3
Japan				Finland			
1979-84	4.0	0.0	4.0	1979-84	3.0	3.6	-0.7
1984-89	3.1	-0.7	3.8	1984-89	1.4	1.2	0.2
1989-93	0.1	1.5	-1.4	1989-93	13.2	13.1	0.1
1979-93	7.1	0.8	6.3	1979-93	17.6	18.0	-0.4
Germany				Greece			
1979-84	0.4	-3.3	3.7	1979-84	3.7	10.1	-6.3
1984-89	-0.4	-1.3	0.9	1984-89	-1.3	7.1	-8.4
1989-93	1.8	5.5	-3.7	1989-93	5.5	2.0	3.5
1979-93	1.9	0.9	0.9	1979-93	7.9	19.2	-11.3
France				Ireland			
1979-84	4.6	4.3	0.3	1979-84	7.7	4.3	3.4
1984-89	-1.0	-1.2	0.1	1984-89	-3.2	-12.0	8.9
1989-93	-0.2	1.5	-1.7	1989-93	1.9	5.6	-3.7
1979-93	3.3	4.6	-1.3	1979-93	6.4	-2.1	8.5
Italy				Netherlands			
1979-84	5.8	5.3	0.5	1979-84	2.0	0.7	1.3
1984-89	4.0	4.0	0.0	1984-89	-2.5	-2.2	-0.3
1989-93	3.1	0.2	2.9	1989-93	2.4	1.6	0.8
1979-93	13.0	9.6	3.4	1979-93	1.9	0.0	1.9
United Kingdom				Norway (mainland)			
1979-84	4.2	-0.1	4.3	1979-84	1.8	1.2	0.6
1984-89	-3.6	-3.6	0.0	1984-89	3.8	3.6	0.2
1989-93	-1.1	2.3	-3.4	1989-93	-1.5	3.9	-5.4
1979-93	-0.5	-1.4	0.9	1979-93	4.2	8.7	-4.5
Canada				Portugal			
1979-84	3.2	5.8	-2.7	1979-84	6.8	4.3	2.5
1984-89	1.8	0.6	1.3	1984-89	1.7	-1.1	2.8
1989-93	2.4	1.8	0.6	1989-93	3.2	5.6	-2.4
1979-93	7.4	8.2	-0.8	1979-93	11.7	8.8	2.9
Australia				Spain			
1979-84	3.5	3.8	-0.4	1979-84	4.4	6.4	-2.0
1984-89	1.5	-2.4	3.9	1984-89	5.4	5.8	-0.4
1989-93	-1.4	3.2	-4.5	1989-93	1.5	2.7	-1.2
1979-93	3.6	4.7	-1.0	1979-93	11.3	14.9	-3.6
Austria				Sweden			
1979-84	1.5	-0.5	2.0	1979-84	1.9	1.9	0.0
1984-89	-1.2	-0.3	-0.9	1984-89	4.7	-0.9	5.5
1989-93	3.0	1.6	1.4	1989-93	-6.2	5.7	-11.9
1979-93	3.3	0.8	2.5	1979-93	0.4	6.8	-6.4
Belgium				OECD Total			
1979-84	2.4	2.6	-0.1	1979-84	2.0	1.5	0.4
1984-89	-2.7	-3.6	1.0	1984-89	1.1	0.2	1.0
1989-93	2.0	0.7	1.3	1989-93	0.5	1.8	-1.3
1979-93	1.8	-0.4	2.2	1979-93	3.7	3.6	0.1

Table 2. Changes in general government expenditure

as a percentage of GDP

	Government consumption	Subsidies	Current transfers	Interest paid	Other income paid	Net investment	Net capital transfers	Other capital outlays	Total expenditure	Total expenditure less interest paid
United States										
1979-84	0.5	0.1	1.1	0.9	..	..	..	..	2.7	1.8
1984-89	0.0	-0.1	-0.1	0.0	..	..	..	..	-0.3	-0.3
1989-93	-0.4	0.0	2.5	0.0	..	..	..	..	2.1	2.1
1979-93	0.1	0.0	3.5	0.9	..	..	..	..	4.5	3.6
Japan										
1979-84	0.1	-0.1	1.2	1.8	..	-1.4	-0.4	0.0	1.2	-0.6
1984-89	-0.6	-0.5	0.1	-0.4	..	0.0	-0.1	0.1	-1.4	-1.0
1989-93	0.8	0.1	0.6	-0.1	..	1.5	0.3	0.3	3.4	3.5
1979-93	0.2	-0.4	1.9	1.3	..	0.0	-0.2	0.4	3.2	1.9
Germany										
1979-84	0.3	-0.2	0.1	1.3	..	-1.2	-0.2	..	0.2	-1.1
1984-89	-1.2	0.0	-0.6	-0.3	..	0.0	-0.4	..	-2.6	-2.3
1989-93	1.4	0.1	2.9	0.7	..	0.4	0.4	..	6.0	5.3
1979-93	0.5	0.0	2.4	1.7	..	-0.8	-0.2	..	3.7	2.0
France										
1979-84	2.0	0.5	3.5	1.3	..	-0.1	-0.1	-0.1	7.0	5.7
1984-89	-1.6	-0.8	-0.8	0.1	..	0.4	0.0	-0.1	-2.8	-2.9
1989-93	1.2	-0.1	2.9	1.0	..	0.1	-0.1	0.2	5.2	4.2
1979-93	1.6	-0.4	5.6	2.3	..	0.5	-0.3	0.0	9.3	7.0
Italy										
1979-84	1.7	0.0	2.7	2.8	0.2	0.7	-0.4	..	7.7	4.9
1984-89	0.4	-0.6	1.3	0.9	0.0	-0.4	0.3	..	2.0	1.1
1989-93	0.9	-0.2	1.7	2.6	0.0	-0.4	-1.1	..	3.5	0.9
1979-93	3.0	-0.7	5.6	6.3	0.2	0.0	-1.1	..	13.2	6.9
United Kingdom										
1979-84	1.8	0.0	2.3	0.5	..	-0.6	0.2	0.1	4.2	3.8
1984-89	-2.2	-1.2	-2.0	-1.2	..	-0.2	-0.7	-0.1	-7.6	-6.4
1989-93	2.8	0.0	3.9	-0.2	..	0.5	0.1	0.1	7.3	7.5
1979-93	2.5	-1.2	4.2	-0.9	..	-0.2	-0.4	0.1	3.9	4.9
Canada										
1979-84	1.1	0.8	2.5	2.8	..	-0.2	0.6	0.0	7.6	4.8
1984-89	-1.0	-1.1	-0.2	1.1	..	-0.1	-0.6	0.0	-1.8	-2.9
1989-93	2.3	0.1	3.9	0.5	..	-0.1	-0.1	0.0	6.6	6.1
1979-93	2.4	-0.3	6.3	4.4	..	-0.3	-0.1	0.0	12.4	8.0
Australia										
1979-84	1.2	0.3	1.7	0.9	..	-0.3	0.3	0.0	4.0	3.2
1984-89	-1.9	-0.4	-1.5	1.4	..	-0.1	-0.1	-0.1	-2.7	-4.0
1989-93	2.4	0.3	3.1	-0.8	..	-0.2	0.6	0.0	5.6	6.5
1979-93	1.8	0.2	3.3	1.4	..	-0.6	0.8	-0.1	7.0	5.6
Austria										
1979-84	0.6	-0.1	0.7	1.1	..	-0.8	0.7	-0.2	1.9	0.8
1984-89	-0.5	-0.1	-0.1	0.6	..	-0.3	-0.6	-0.1	-1.0	-1.6
1989-93	1.0	0.5	1.3	0.4	..	0.0	-0.1	0.0	3.2	2.8
1979-93	1.0	0.3	2.0	2.1	..	-1.1	0.0	-0.3	4.0	1.9
Belgium										
1979-84	-0.6	-0.3	1.9	4.7	..	-1.0	-0.3	..	4.4	-0.3
1984-89	-2.2	-0.3	-2.2	0.6	..	-1.0	-0.5	..	-5.6	-6.2
1989-93	0.5	0.1	1.9	0.6	..	0.1	-0.5	..	2.6	2.0
1979-93	-2.4	-0.6	1.5	5.9	..	-1.9	-1.2	..	1.3	-4.5

Table 2. Changes in general government expenditure (continued)
as a percentage of GDP

	Government consumption	Subsidies	Current transfers	Interest paid	Other income paid	Net investment	Net capital transfers	Other capital outlays	Total expenditure	Total expenditure less interest paid
Denmark										
1979-84	0.8	0.1	1.8	6.1	..	-1.8	0.2	0.0	7.2	1.1
1984-89	-0.2	0.2	1.7	-2.1	..	-0.1	0.0	-0.3	-0.7	1.4
1989-93	0.7	-0.1	2.4	-0.7	..	-0.1	0.0	0.1	2.4	3.1
1979-93	1.3	0.2	5.9	3.3	..	-1.9	0.2	-0.2	8.8	5.5
Finland										
1979-84	1.5	-0.3	1.3	0.7	0.0	0.0	0.0	-0.2	3.0	2.3
1984-89	0.6	-0.4	-0.7	-0.2	0.0	-0.3	0.0	-0.2	-1.2	-0.9
1989-93	4.4	0.6	16.8	3.3	0.2	-0.1	0.0	-0.1	25.0	21.7
1979-93	6.5	-0.1	17.4	3.7	0.2	-0.3	-0.1	-0.5	26.8	23.1
Greece										
1979-84	3.2	-0.3	4.9	2.4	..	1.1	-0.1	0.3	11.4	9.0
1984-89	1.0	-0.4	1.5	3.7	..	-0.9	-0.4	0.4	5.0	1.3
1989-93	-0.9	-0.6	-0.8	5.7	..	1.4	-1.0	0.0	3.9	-1.9
1979-93	3.3	-1.3	5.6	11.8	..	1.6	-1.6	0.7	20.3	8.4
Ireland										
1979-84	1.1	-0.3	4.3	3.1	..	-1.1	-0.7	..	6.4	3.3
1984-89	-3.3	-1.9	-1.8	-1.2	..	-2.0	-0.6	..	-10.9	-9.7
1989-93	1.8	0.3	1.1	-0.1	..	0.8	0.1	..	4.1	4.2
1979-93	-0.4	-1.9	3.5	1.8	..	-2.3	-1.2	..	-0.5	-2.2
Netherlands										
1979-84	-1.5	0.6	2.2	2.9	0.0	-0.3	0.9	0.0	4.8	1.9
1984-89	-1.2	0.0	-0.9	-0.6	0.4	-0.5	-0.4	-0.6	-3.9	-3.3
1989-93	-0.3	-0.5	3.1	0.2	0.0	0.1	-0.8	0.2	2.0	1.8
1979-93	-3.0	0.1	4.4	2.5	0.3	-0.7	-0.3	-0.4	2.9	0.3
Norway										
1979-84	-0.9	-1.3	-0.5	0.1	..	-1.4	..	0.0	-4.0	-4.1
1984-89	2.5	0.2	4.1	0.7	..	0.7	..	-0.2	8.0	7.3
1989-93	1.3	0.6	2.8	-0.3	..	-0.6	..	0.1	3.9	4.2
1979-93	2.9	-0.5	6.5	0.5	..	-1.3	..	-0.2	7.9	7.4
Portugal										
1979-84	1.2	-0.3	1.1	5.3	..	-0.6	1.4	-0.1	8.2	2.8
1984-89	1.1	-2.8	1.9	-1.1	..	0.2	-2.0	0.0	-2.7	-1.6
1989-93	5.0	0.3	-0.9	0.5	..	0.9	3.1	0.0	9.0	8.5
1979-93	7.3	-2.8	2.1	4.8	..	0.6	2.6	-0.1	14.5	9.7
Spain										
1979-84	1.9	0.8	2.0	1.5	..	0.9	0.7	0.1	7.9	6.4
1984-89	0.9	-0.6	0.2	1.3	..	1.6	-0.5	-0.1	2.8	1.5
1989-93	2.2	-0.3	3.5	1.5	..	-0.2	-0.6	0.0	6.0	4.5
1979-93	4.9	-0.1	5.7	4.3	..	2.3	-0.4	0.0	16.8	12.5
Sweden										
1979-84	-0.6	0.7	-1.1	4.5	0.0	-1.3	0.0	-0.4	1.9	-2.6
1984-89	-1.8	-0.4	1.6	-2.2	0.0	-0.2	0.2	-0.7	-3.6	-1.4
1989-93	2.0	1.2	6.9	1.6	0.0	0.0	1.4	0.5	13.6	12.0
1979-93	-0.3	1.5	7.3	3.9	0.1	-1.5	1.6	-0.6	11.9	8.0
OECD Total										
1979-84	0.7	0.1	1.5	1.5	..	-0.4	0.0	0.0	3.5	2.0
1984-89	-0.5	-0.4	-0.2	0.0	..	0.0	-0.1	0.0	-1.3	-1.3
1989-93	0.7	0.0	2.5	0.4	..	0.3	0.0	0.1	4.0	3.6
1979-93	0.9	-0.2	3.8	1.9	..	-0.1	-0.2	0.0	6.2	4.3

Table 3. Fiscal targets in 1983 and 1993

Country	1983 time scale	1983 Objectives	1993 time scale	1993 Objective
United States	FY 1981-1988	Achievement of federal budget balance by 1984, amended to a FY 1988 federal deficit/GNP ratio of about 2 per cent; federal outlays to be reduced from 26 per cent of GNP in FY 1983 to 23 per cent.	By FY 1998	Fiscal policy for the next five years on the federal level will be governed by the deficit-reduction agreement reached last summer. The Omnibus Budget Reconciliation Act (OBRA93) calls for a cumulative cut in the deficit of about \$500 million, including approximately equal contributions from increased taxation and reduced spending. Budgetary savings scheduled under this package would produce a fall in the federal budget deficit from \$290 billion (nearly 5 per cent of GDP) in FY 1992 to \$180-200 billion (around 2 1/2 per cent of GDP) by FY 1997/98. These targets are to be attained in an environment of a 2 1/2 per cent average economic growth. At the State and Local level, a gradual improvement in budgetary positions may be envisaged as well, as these jurisdictions will have to reverse the deterioration they have experienced in recent years. Ultimately, the State and Local surplus should attain around 1 per cent of GDP which would lead to a general government deficit of 1 1/2 per cent of GDP.
Japan	1979/80 - 1984/85	Seven-year plan to reduce public-sector deficit from 11.25 per cent of GDP in 1978 to 5 1/2 per cent, implying the elimination of deficit-financed public consumption. Subsequently revised; objective still holds but no deadline at present operative. Original intention of raising taxation altered, in 1981, to policy of restraining public expenditure through a "zero ceiling" on most public consumption.	By FY 1995	No targets, but guideline to reduce "construction bonds" for financing public works expenditure to 5 per cent of central government outlays by fiscal year 1995.
Germany	1983-1987	Medium-term financial plan aimed at reducing the federal deficit from DM 39 billion (2 1/2 per cent of GNP) to DM 22 billion (about 1 per cent), to be achieved by holding nominal public spending growth to about 2 3/4 per cent per annum. Limits on the annual rise in expenditure of territorial authorities are also imposed.	By 1995	A medium-term consolidation strategy aiming at: i) limiting the annual rise of expenditure of the territorial authorities to 3 per cent per annum, thereby reducing their share in GDP from the current 51 per cent; ii) to cut the federal deficit from DM 68 billion in 1993 to DM 38 billion in 1997, corresponding to 1 per cent of GDP. Considerable savings are also in prospect for the local authorities.

Table 3. continued

Country	1983 time scale	1983 Objectives	1993 time scale	1993 Objective
France	1982-1983	Aim to stabilise central government deficit at 3 per cent of GDP.	By 1997	The Government intends to reduce the central government deficit to 2 1/2 per cent of GDP in 1997 (to meet Maastricht criteria), and to increase State spending (including debt servicing) by no more than the inflation rate. Underlying this target is an average annual rate of growth of real GDP of 2.8 per cent, while revenues are projected to rise in line with GDP. This scenario does not prevent the debt/GDP ratio from rising further by 1997.
Italy	1981-1983	Freezing of PSBR at 1980 level; altered to stabilising PSBR at 1982 level.	By 1996	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. Increasing to 3.6 per cent of GDP in 1996, the primary surplus would allow to reverse the rising trend of public debt after 1995 though.
United Kingdom	1980/81 -- 1985/86	"Medium-term Financial Strategy", aimed at reducing PSBR from 5.7 per cent of GDP to 2 per cent; general government expenditure planned to fall from 47 1/2 per cent of GDP in 1981/2 to 43 1/2 per cent.	Medium term	Bring the PSBR back towards balance over the medium term and when economy is on trend, borrow only to finance net capital spending. The Government projects a return to a balanced budget by the end of the century. This target is to be attained with real growth expected to be around 3 per cent per annum.
Canada	1981/82 - 1985/86	Reduction of federal deficit to 2 per cent of GNP from over 5 per cent in 1978-79; later revised to cutting deficit from nearly 7 per cent of GNP in 1982/83 to 3 1/2 per cent in 1986/87, via a reduction in the government expenditure/GNP ratio from 26 to 23 1/2 per cent.	By 1997-98	The Spending Control Act ensures that over the next four years primary spending will gradually decline as a share of GDP. On the basis of projected 4 per cent real GDP growth per annum, the medium-term fiscal plan expects the federal deficit to disappear by FY 1997/98, as compared to 4 1/2 per cent in 1993. (However, the 1993 federal deficit is now expected to exceed 6 per cent of GDP in 1993.)
Australia	1975-1982	General objective to reduce the central government deficit and size of public sector. Ceased to operate 1983.	By 1996-97	To lower central government PSBR to 1.2 per cent of GDP, with emphasis on tax increases.
Austria	1976-1983	Reduction of central government deficit to 2 1/2 per cent of GDP, via expenditure restraint.	By 1994	Reduce Federal budget to 2 1/2 per cent of GDP.

Table 3. continued

Country	1983 time scale	1983 Objectives	1993 time scale	1993 Objective
Belgium	1979-1983	Reduce general government deficit by about a half, to 7 per cent of GDP, through restriction on the growth of current spending.		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 (compared to 7 per cent in 1993), while setting the debt/GDP ratio on a declining trend.
Denmark	1980-1985	Medium-term action programme to reduce the central government deficit through restriction on the growth of public spending and revenue-raising measures.	By 1999	Balances budget.
Finland	1976-1982	Growth in the volume of public consumption to be restricted to 1 per cent per annum below the annual average growth rate of GDP; tax burden to be stabilised.	By 1997	Stabilise central government debt at 70 per cent of GDP.
Ireland				Respect Maastricht deficit and debt targets.
Netherlands	1978 onwards	Reduction in public-sector deficit from 5.25 per cent to structural norm of 4 to 4.5 per cent of GDP, via expenditure restraint.	1994	Target of general government deficit of 3 per cent of GDP. Government has admitted that target will not be reached.
Norway	1982-1985	"Long-term programme" to contain public expenditure growth and stabilise tax levels.	1994-97	Long-term programme aims at restricting growth in public expenditure to 2 per cent per year on average.
Portugal	1981-1984	Stabilise or reduce the central government deficit.	1994-97	Reduce deficit to 3.3 per cent of GDP. Revert upward trend in public debt ratio, sending it to 67 per cent by 1997.
Spain	1979 onwards	Medium-term objective to control public-sector deficit and curtail current expenditures.		Respect Maastricht deficit and debt targets.
Sweden	1980-1190	Reduction of central government deficit in line with the achievement of external current account balance.	1995-98	Gradual return to structural budget balance.
Switzerland	1980-1983	Establish federal government budget balance by 1984, by restricting the growth of spending; altered to achieving deficit of 0.2 per cent of GDP.		Federal government aims for cyclically adjusted budget balance.

Sources: 1983: Daniel Tarschys, "Curbing public expenditure: current trends", *Journal of Public Policy*, 5, 1, pp. 23-67.

1993: OECD Secretariat and Member countries' budgets.

Table 4. Reference scenario: Summary of fiscal projections (a)

	1986-92	1993	1994	1995	1996	1997	1998	1999	2000
<i>Percentage of nominal GDP</i>									
Current receipts									
United States	30.7	30.8	31.2	31.4	31.6	31.7	31.8	31.9	31.9
Japan	33.1	33.2	33.8	34.0	34.3	34.7	35.2	35.6	36.0
Germany	44.8	46.8	47.9	48.9	48.8	48.4	48.0	47.6	47.2
OECD Europe	44.1	45.2	45.9	46.2	46.3	46.2	46.2	46.2	46.2
OECD Total	36.8	37.4	37.9	38.2	38.3	38.4	38.5	38.6	38.7
Total expenditures									
United States	33.5	34.5	33.9	33.5	33.2	33.2	33.3	33.4	33.7
Japan	31.7	34.3	35.8	36.4	36.6	36.9	37.2	37.5	37.9
Germany	46.7	50.8	51.4	51.6	51.5	51.0	50.4	49.8	49.3
OECD Europe	48.0	52.0	52.3	51.8	51.2	50.5	49.9	49.3	48.7
OECD Total	39.4	42.1	42.1	41.8	41.4	41.2	41.0	40.8	40.7
Budget balance									
United States	-2.8	-3.6	-2.7	-2.1	-1.6	-1.5	-1.5	-1.5	-1.7
Japan	1.4	-1.0	-2.0	-2.4	-2.3	-2.2	-2.0	-1.9	-1.9
Germany	-1.9	-4.0	-3.5	-2.7	-2.7	-2.6	-2.4	-2.2	-2.1
OECD Europe	-3.9	-6.8	-6.3	-5.6	-5.0	-4.3	-3.7	-3.1	-2.5
OECD Total	-2.6	-4.6	-4.2	-3.6	-3.1	-2.8	-2.5	-2.2	-2.0
Primary balance									
United States	-0.8	-1.7	-0.8	0.0	0.6	0.7	0.7	0.6	0.4
Japan	2.3	-0.7	-1.6	-1.8	-1.6	-1.4	-1.2	-1.0	-0.8
Germany	0.4	-1.0	-0.1	1.7	1.8	2.0	2.1	2.3	2.4
OECD Europe	0.1	-1.9	-1.3	-0.3	0.2	0.8	1.3	1.8	2.2
OECD Total	0.1	-1.7	-1.2	-0.5	0.1	0.3	0.6	0.8	1.0
Gross debt									
United States	55.0	63.4	64.1	64.1	63.7	63.4	63.1	62.9	62.9
Japan	70.8	68.3	70.3	72.4	74.3	75.9	77.4	78.6	79.8
Germany	43.1	46.2	50.8	60.0	60.9	61.4	61.6	61.7	61.7
OECD Europe	59.1	67.3	71.6	76.1	78.0	79.0	79.3	79.1	78.4
OECD Total	59.3	66.1	68.5	70.7	71.7	72.2	72.4	72.4	72.2

a. Data refer to general government. Projections for 1994 and 1995 are identical to those in OECD Economic Outlook no. 54 (December 1993). More recent fiscal developments, such as Japan's fiscal package as announced in February 1994 and the most recent budgets for the United States and the United Kingdom, are not included in this table.

Table 5. Low Growth Scenario without fiscal or monetary adjustment (scenario 1A): Summary of fiscal projections (a)

	1986-92	1993	1994	1995	1996	1997	1998	1999	2000
<i>Percentage of nominal GDP</i>									
Current receipts									
United States	30.7	30.8	31.2	31.4	31.6	31.8	31.9	32.0	32.1
Japan	33.1	33.2	33.8	34.1	34.5	34.9	35.4	35.9	36.5
Germany	44.8	46.8	47.9	49.0	49.0	48.7	48.3	48.0	47.6
OECD Europe	44.1	45.2	46.0	46.3	46.4	46.4	46.5	46.5	46.5
OECD Total	36.8	37.4	38.0	38.2	38.4	38.5	38.7	38.8	38.9
Total expenditures									
United States	33.5	34.5	33.9	33.7	33.7	34.2	34.7	35.4	36.2
Japan	31.7	34.3	35.9	36.6	37.0	37.5	38.2	38.9	39.7
Germany	46.7	50.8	51.4	51.9	52.1	52.0	51.9	51.9	52.0
OECD Europe	48.0	52.0	52.3	52.0	51.7	51.4	51.2	51.0	50.9
OECD Total	39.4	42.1	42.2	42.0	42.0	42.1	42.3	42.6	43.0
Budget balance									
United States	-2.8	-3.6	-2.8	-2.3	-2.1	-2.4	-2.8	-3.4	-4.1
Japan	1.4	-1.0	-2.1	-2.5	-2.5	-2.6	-2.7	-2.9	-3.2
Germany	-1.9	-4.0	-3.5	-2.9	-3.1	-3.3	-3.6	-3.9	-4.4
OECD Europe	-3.9	-6.8	-6.4	-5.7	-5.3	-5.0	-4.7	-4.5	-4.4
OECD Total	-2.6	-4.6	-4.2	-3.8	-3.5	-3.5	-3.6	-3.8	-4.1
Primary balance									
United States	-0.8	-1.7	-0.8	-0.1	0.2	0.0	-0.3	-0.7	-1.2
Japan	2.3	-0.7	-1.6	-1.9	-1.8	-1.7	-1.7	-1.7	-1.8
Germany	0.4	-1.0	-0.1	1.6	1.6	1.5	1.5	1.5	1.4
OECD Europe	0.1	-1.9	-1.3	-0.5	0.0	0.3	0.6	0.9	1.2
OECD Total	0.1	-1.7	-1.2	-0.6	-0.3	-0.2	-0.1	-0.2	-0.3
Gross debt									
United States	55.0	63.4	64.2	64.5	65.0	65.9	67.5	69.8	73.1
Japan	70.8	68.3	70.3	72.6	74.8	77.0	79.4	82.0	84.9
Germany	43.1	46.2	50.9	60.4	62.0	63.7	65.7	68.1	71.3
OECD Europe	59.1	67.3	71.7	76.6	79.3	81.7	83.9	86.1	88.6
OECD Total	59.3	66.1	68.6	71.1	72.8	74.6	76.5	78.9	81.7

a. Data refer to general government.

Table 6. Low growth scenarios with fiscal adjustment: summary of outcomes

Percentage point differences from the low growth scenario without fiscal or monetary adjustment

	1996	1997	1998	1999	2000
<i>Assuming a cut in government expenditure and lower real interest rates (scenario 1C)</i>					
Real GDP growth	0.2	0.4	0.0	-0.4	-0.8
Inflation rate	0.0	0.2	0.4	0.2	-0.4
Unemployment rate	0.0	-0.1	-0.2	-0.1	0.3
Government receipts (a)	0.0	-0.1	-0.1	0.0	-0.1
Government expenditure (a)	-0.1	-0.4	-0.7	-1.3	-2.1
Government net lending (a)	0.1	0.3	0.7	1.3	2.1
Gross public debt (a)	-0.2	-0.7	-1.5	-2.5	-3.9
<i>Assuming an increase in taxes and lower real interest rates (scenario 1E)</i>					
Real GDP growth	0.3	0.4	-0.2	-1.0	-1.4
Inflation rate	0.1	0.4	0.7	0.7	0.3
Unemployment rate	-0.1	-0.2	-0.2	0.2	0.7
Government receipts (a)	-0.2	-0.2	0.3	1.1	2.4
Government expenditure (a)	-0.3	-0.4	-0.4	-0.1	0.4
Government net lending (a)	0.1	0.3	0.7	1.3	2.1
Gross public debt (a)	-0.2	-0.8	-1.6	-2.7	-4.1

a. Share of GDP.

Table 7. Fiscal stimulus scenarios: summary of outcomes

Percentage point differences from the reference scenario

	1994	1995	1996	1997	1998	1999	2000
<i>Assuming fixed real interest rates (scenario 2A)</i>							
Real GDP growth	1.4	0.1	-0.3	-0.3	-0.1	-0.1	-0.1
Inflation rate	0.5	1.1	1.3	1.2	1.3	1.2	1.3
Unemployment rate	-0.5	-0.7	-0.6	-0.5	-0.4	-0.3	-0.2
Government receipts (a)	-0.3	-0.1	0.1	0.1	0.1	0.2	0.2
Government expenditure (a)	0.5	0.5	0.8	1.1	1.3	1.5	1.8
Government net lending (a)	-0.8	-0.6	-0.7	-1.0	-1.2	-1.4	-1.5
Gross public debt (a)	0.1	0.3	0.6	1.1	1.8	2.5	3.4
<i>Assuming fixed nominal interest rates (scenario 2B)</i>							
Real GDP growth	1.5	0.6	0.3	0.2	0.3	0.3	0.3
Inflation rate	0.5	1.3	1.9	2.3	2.7	3.0	3.3
Unemployment rate	-0.5	-0.9	-0.9	-1.1	-1.1	-1.1	-1.1
Government receipts (a)	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.2
Government expenditure (a)	0.3	-0.1	-0.3	-0.5	-0.8	-1.1	-1.4
Government net lending (a)	-0.6	-0.2	0.1	0.3	0.6	0.8	1.1
Gross public debt (a)	-0.1	-0.7	-1.5	-2.6	-4.1	-5.9	-7.9
<i>Assuming increased real interest rates (scenario 2C)</i>							
Real GDP growth	1.3	0.0	-0.4	-0.5	-0.3	-0.5	-0.4
Inflation rate	0.4	1.0	1.1	1.0	0.9	0.7	0.5
Unemployment rate	-0.5	-0.7	-0.5	-0.4	-0.2	0.0	0.1
Government receipts (a)	-0.3	-0.1	0.1	0.2	0.3	0.4	0.5
Government expenditure (a)	0.6	0.7	1.1	1.5	1.9	2.5	3.1
Government net lending (a)	-0.9	-0.8	-1.0	-1.3	-1.7	-2.1	-2.6
Gross public debt (a)	0.2	0.6	1.3	2.2	3.5	5.3	7.5

a. Share of GDP.

Figure 1. General government net lending

as a percentage of GDP

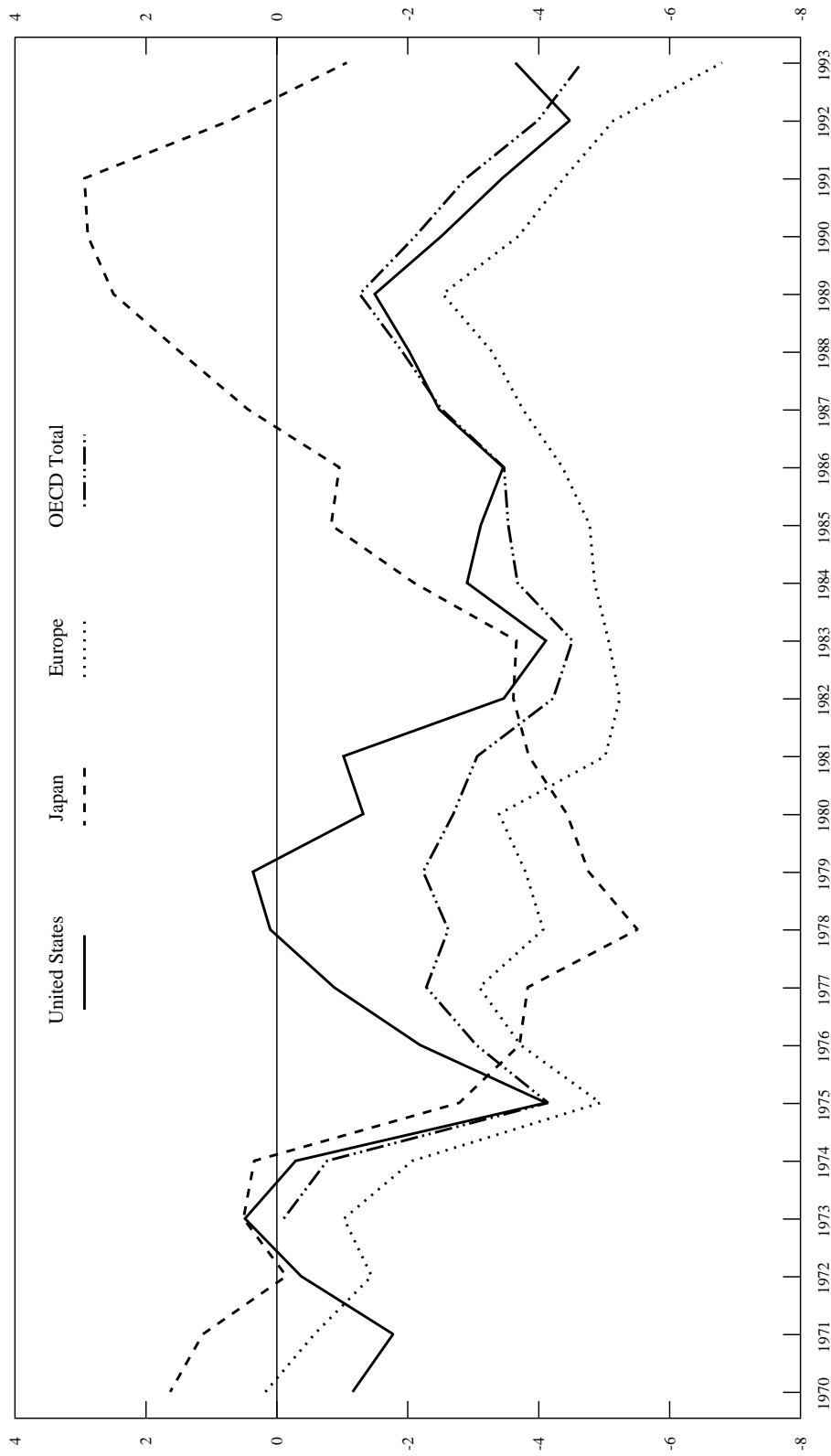
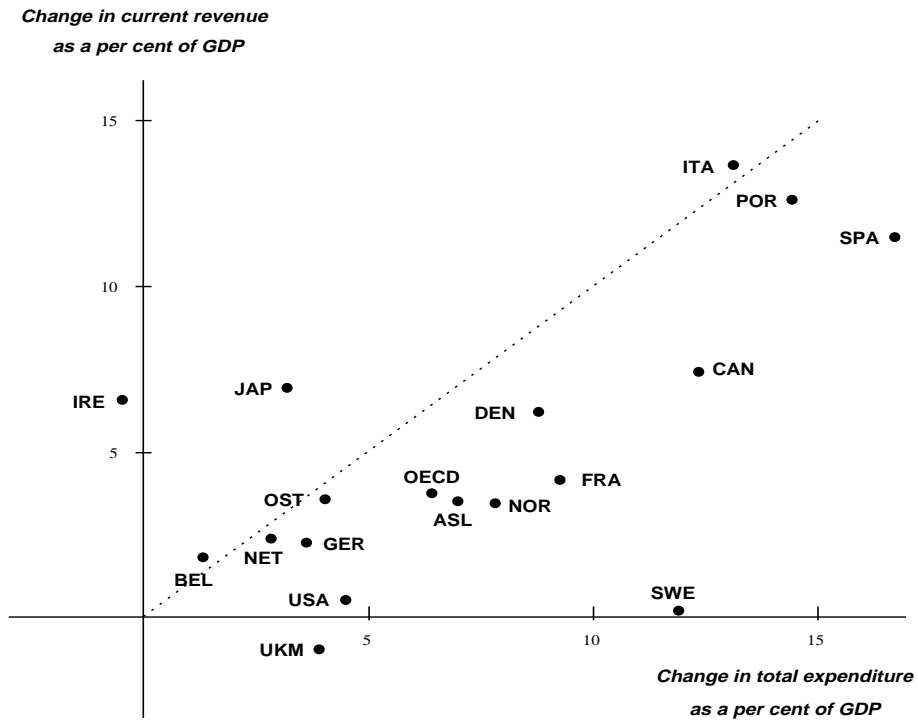


Figure 2. Movements in general government revenue and expenditure over the period 1979-93



*Change in cyclically-adjusted current revenue
as a per cent of trend GDP*

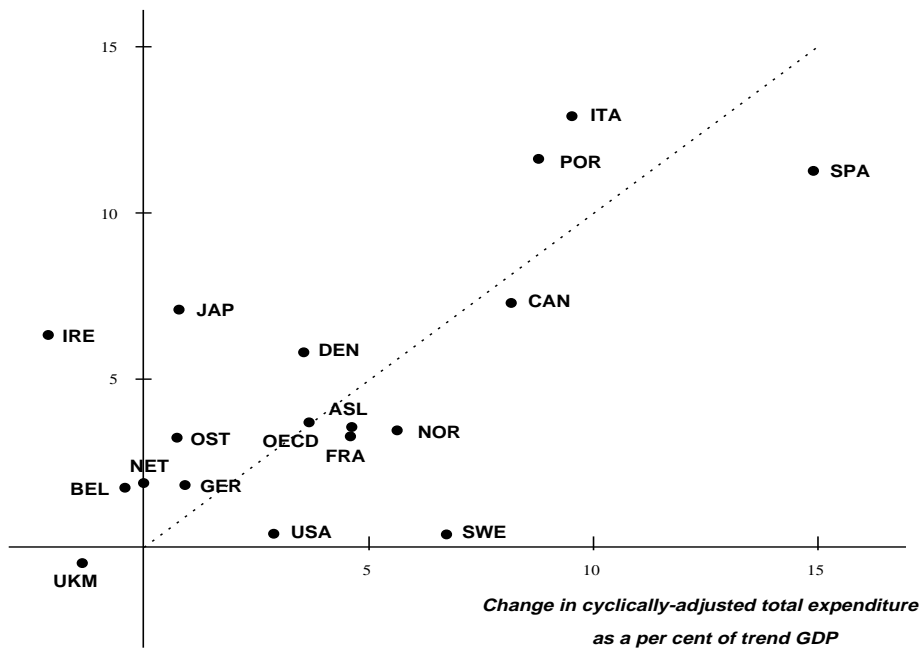
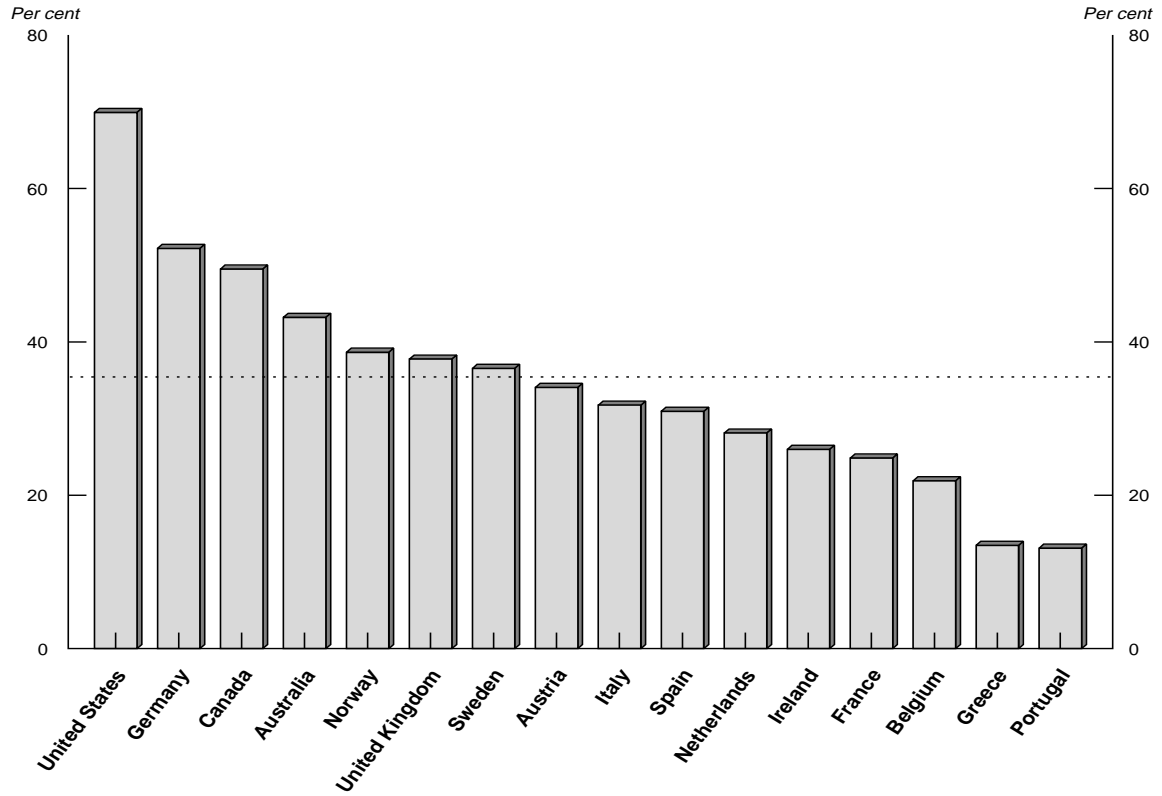


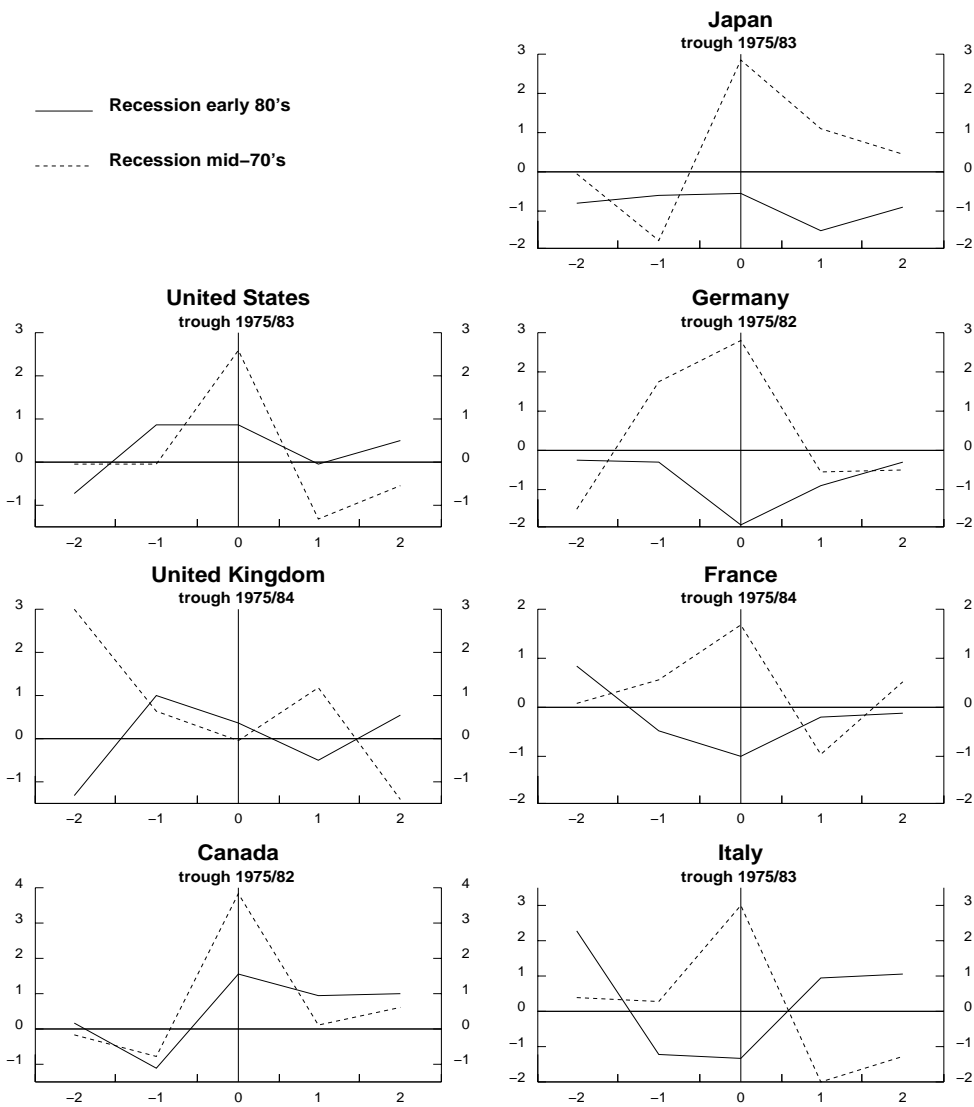
Figure 3. Dampening impact of automatic stabilisers over an economic recession (1)



1. Recession is defined here as a period during which the economy grows below trend.

NOTE: Data are based on simulations using INTERLINK. Private consumption was forced to move in such a way as to generate a downturn and subsequent upturn in economic activity. In a first simulation, the automatic stabilisers were allowed to work. In a second simulation with the same demand shock, governments were assumed to change taxes in order to prevent any increase in the government deficit. The difference between the output loss in the second case and the initial loss represents the dampening impact of the automatic stabilisers. Numbers hence show by how much the output fluctuation is reduced over the recession. The dotted line is the unweighted OECD average. In both simulations, interest rates were held constant and exchange rates were allowed to float. It should be borne in mind that if countries go into recession together, the leakages from jointly allowing automatic stabilisers to work are less than assumed in these simulations, as countries benefit from the stabilisers of their neighbors as well as their own.

Figure 4. Fiscal policy during previous recessions (1)
years around cyclical trough



1. Change in cyclically adjusted budget deficit as percentage of trend GDP.

Figure 5. Fiscal policy during the recent business cycle

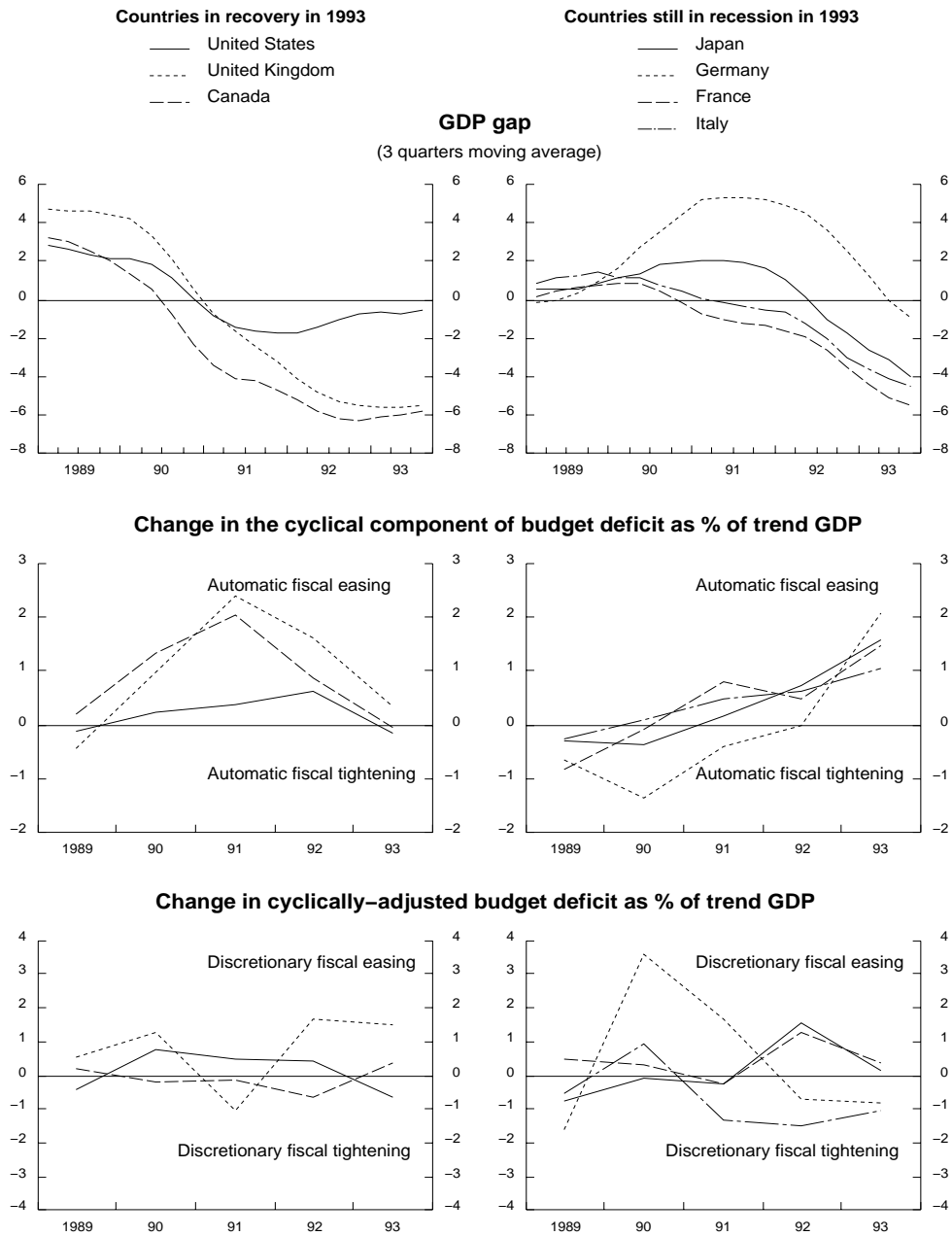


Figure 5. Continued

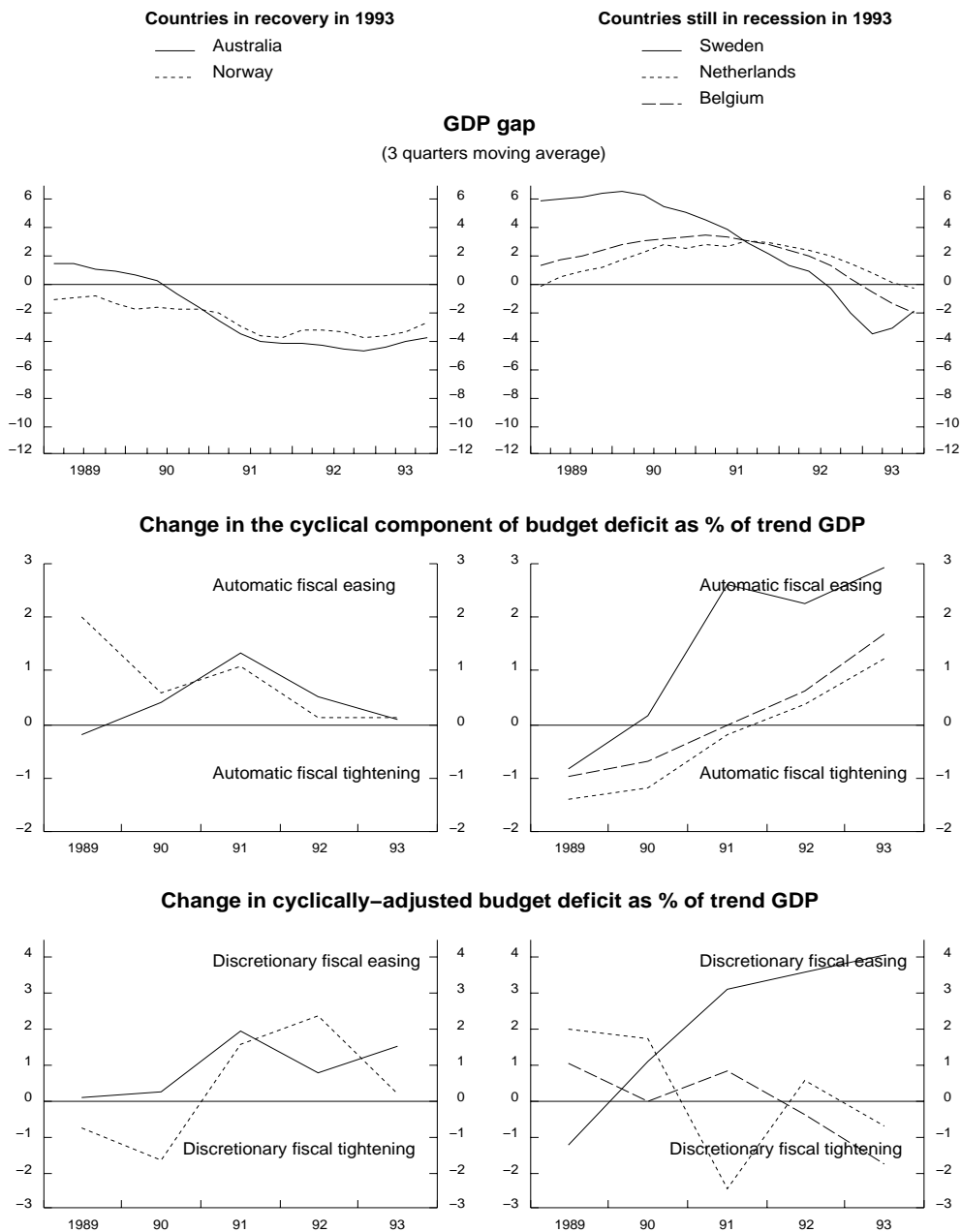
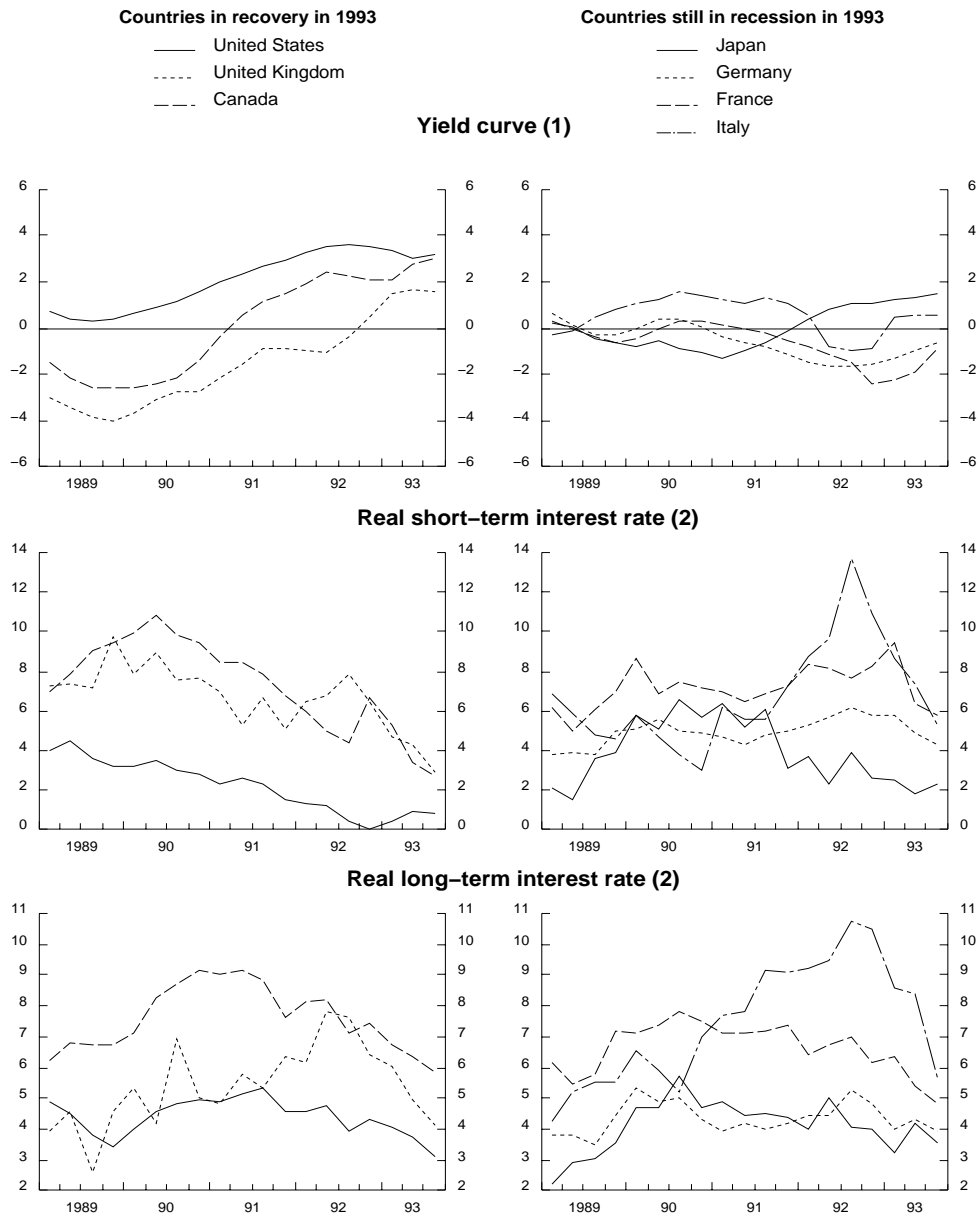


Figure 6. Monetary conditions during the recent business cycle



1. Differential between long-term and short-term interest rate, three quarters moving average.
 2. Real short-term rates are measured by subtracting annualised 1-quarter-ahead inflation rates from short-term nominal rates. In order to smooth erratic movements of quarterly inflation rates, however, a 3-quarter moving average is applied to 1-quarter-ahead inflation rates. Real long-term interest rates are measured by subtracting the 1-year-ahead inflation rate from nominal long-term rates. For 1993 and 1994, OECD Secretariat inflation projections are used.

Figure 6. Continued

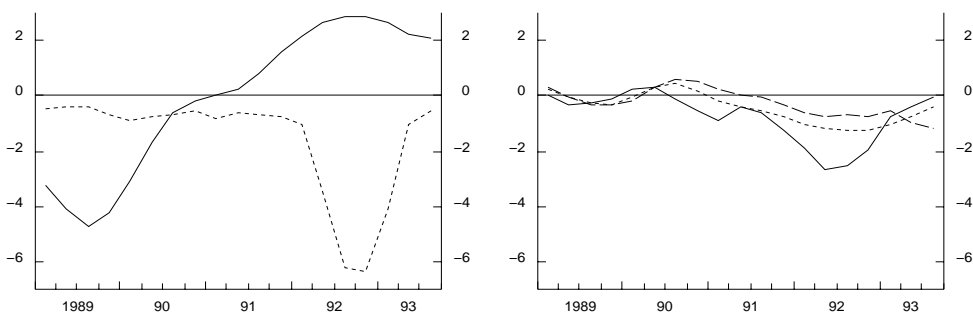
Countries in recovery in 1993

— Australia
 - - - - Norway

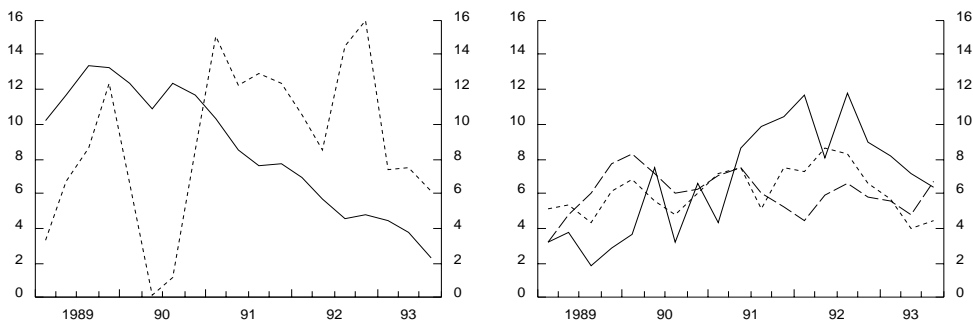
Countries still in recession in 1993

— Sweden
 - - - - Netherlands
 - - - - Belgium

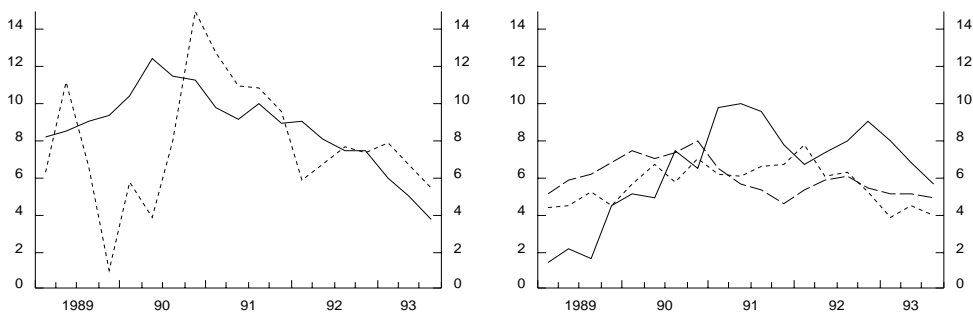
Yield curve (1)



Real short-term interest rate (2)

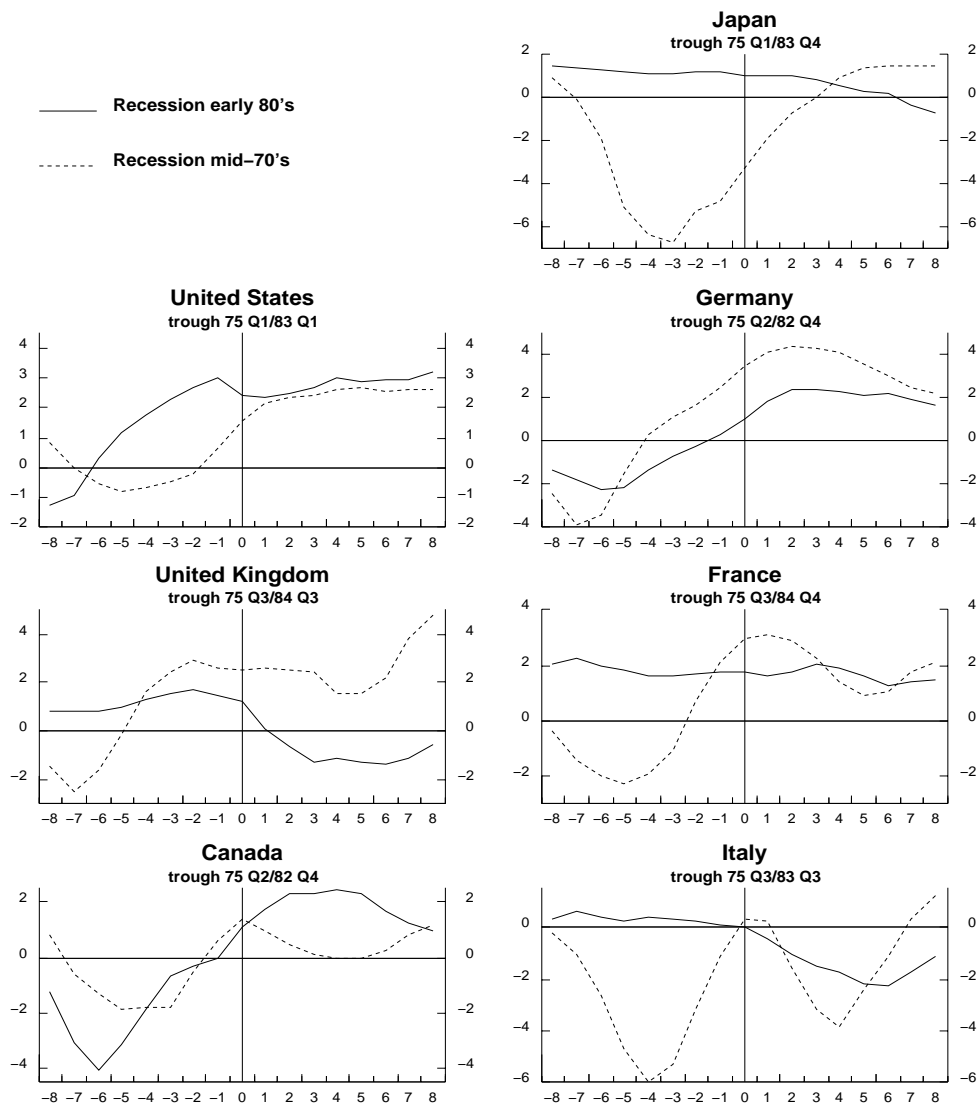


Real long-term interest rate (2)



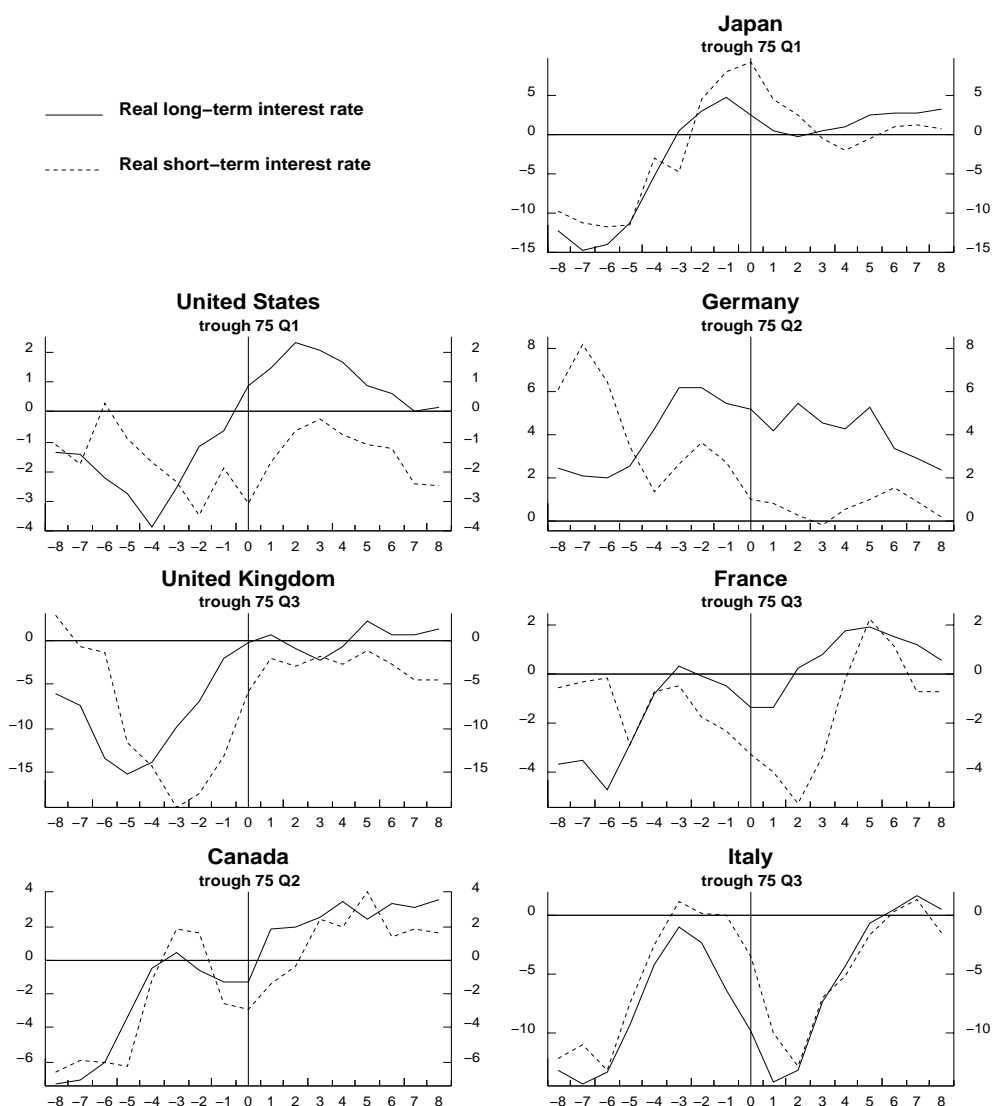
1. Differential between long-term and short-term interest rate, three quarters moving average.
2. Regarding real short-term rates, annualised 1-quarter-ahead inflation rates are subtracted from short-term nominal rates. In order to smooth erratic movements of quarterly inflation rates, however, a 3-quarter moving average is applied to 1-quarter-ahead inflation rates. Real long-term interest rates are measured by subtracting the one year-ahead inflation rate from nominal long-term rates. For 1993 and 1994, OECD Secretariat inflation projections are used.

Figure 7. Yield curve developments during previous recessions (1)
quarters around cyclical trough



1. Differential between long-term and short-term interest rate (yield curve), 3 quarters moving average.

Figure 8. Real interest rates during previous recessions (1)
quarters around cyclical trough



1. Real short-term rates are measured by subtracting annualised 1-quarter-ahead inflation rates from short-term nominal rates. In order to smooth erratic movements of quarterly inflation rates, however, a 3-quarter moving average is applied to 1-quarter-ahead inflation rates. Real long-term interest rates are measured by subtracting the 1-year-ahead inflation rate from nominal long-term rates. For 1993 and 1994, OECD Secretariat inflation projections are used.

Figure 8. Continued

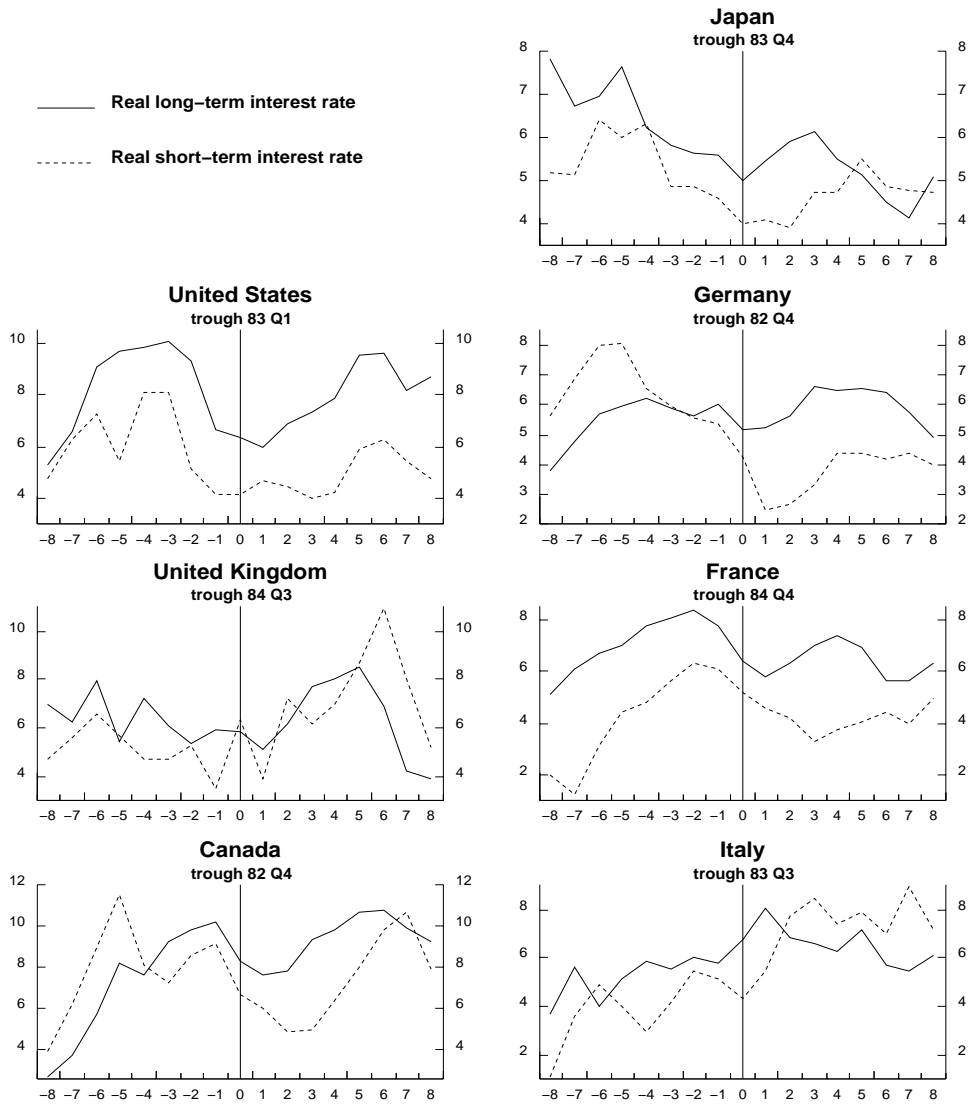


Figure 9. Indicators of crowding out

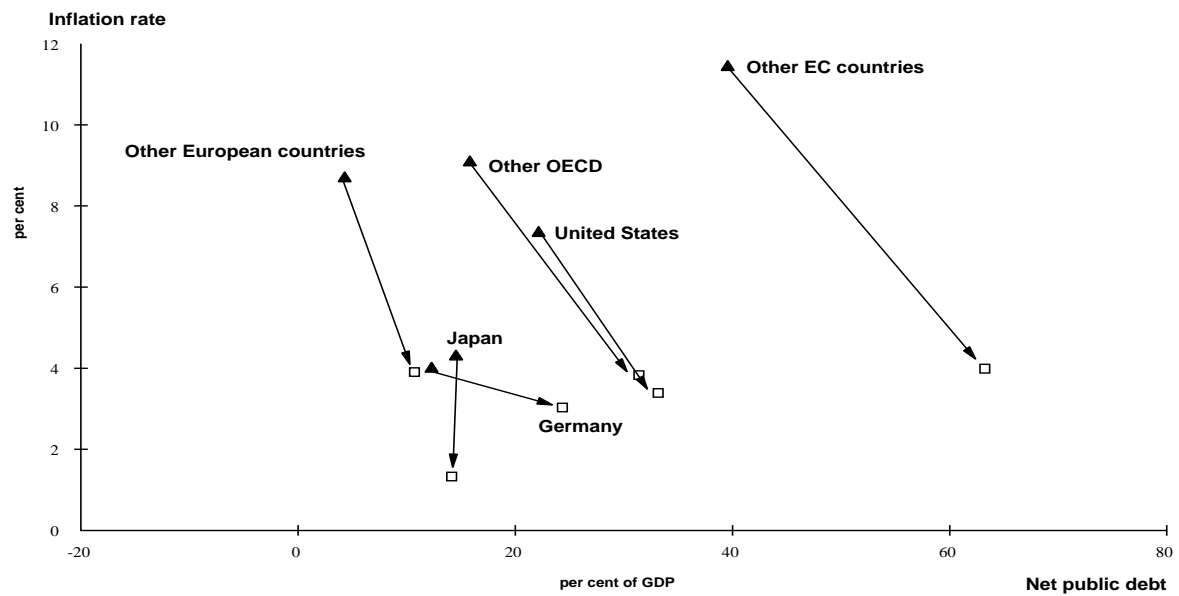
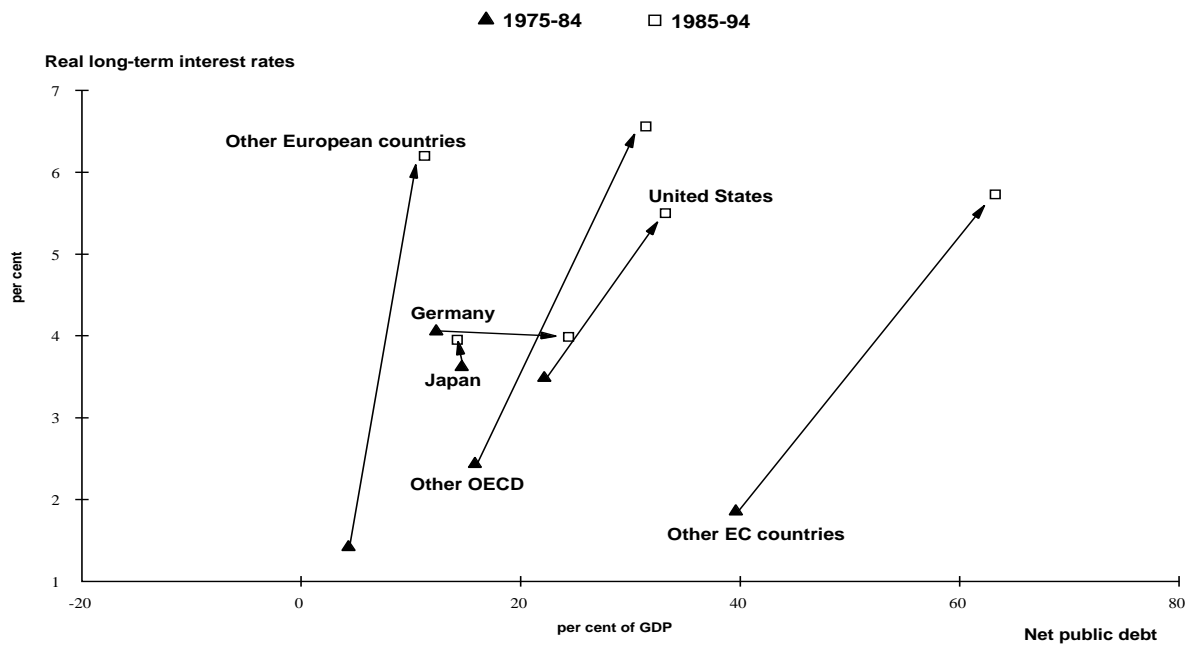
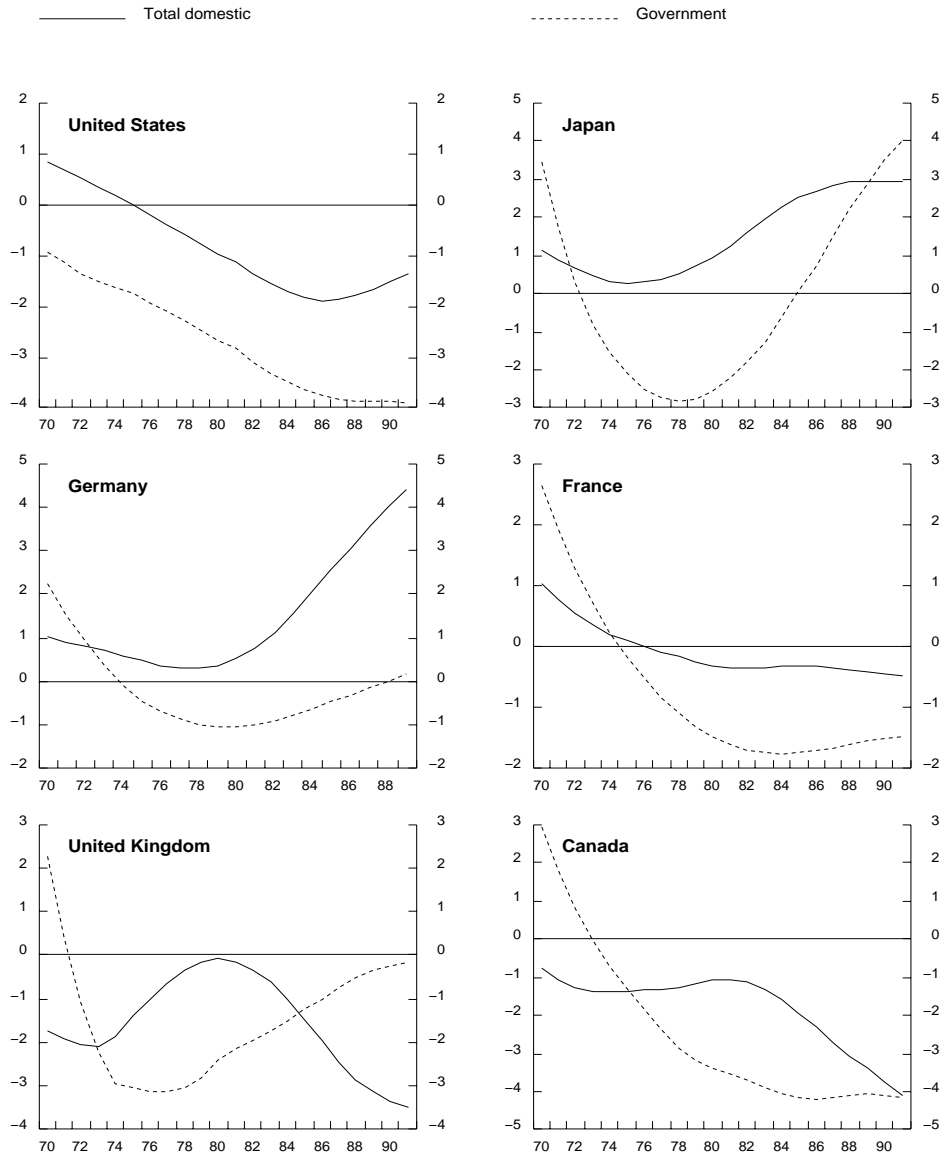


Figure 10. Trends in total domestic and government saving–investment balances (1)

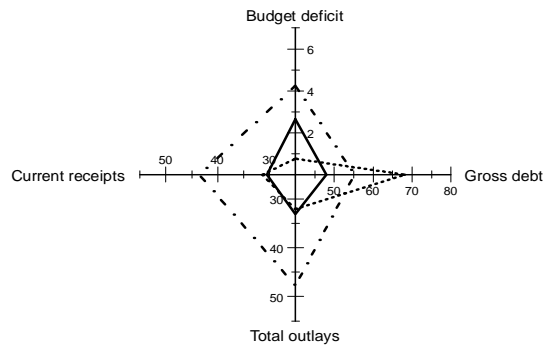


1. Trend lines have been calculated by using the Hodrick–Prescott filter.

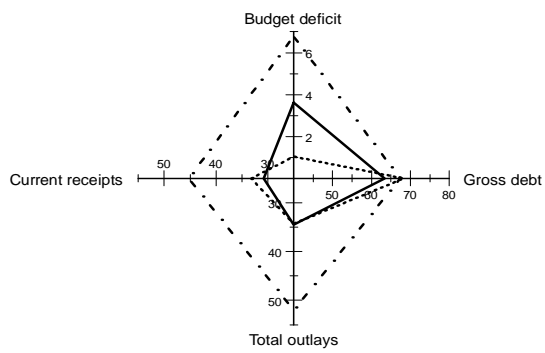
Figure 11. Development of fiscal patterns
general government data as a percentage of GDP

— *United States* ···· *Japan* - - - - *Europe*

1981-90 (average)



1993



2000 (Reference scenario)

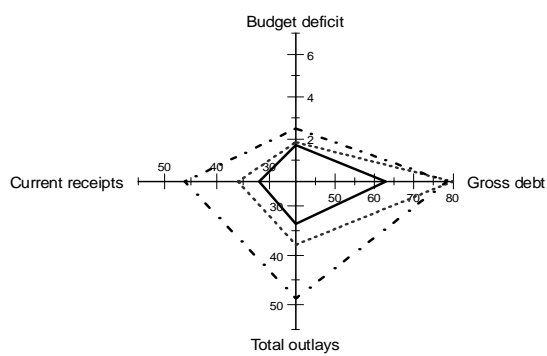
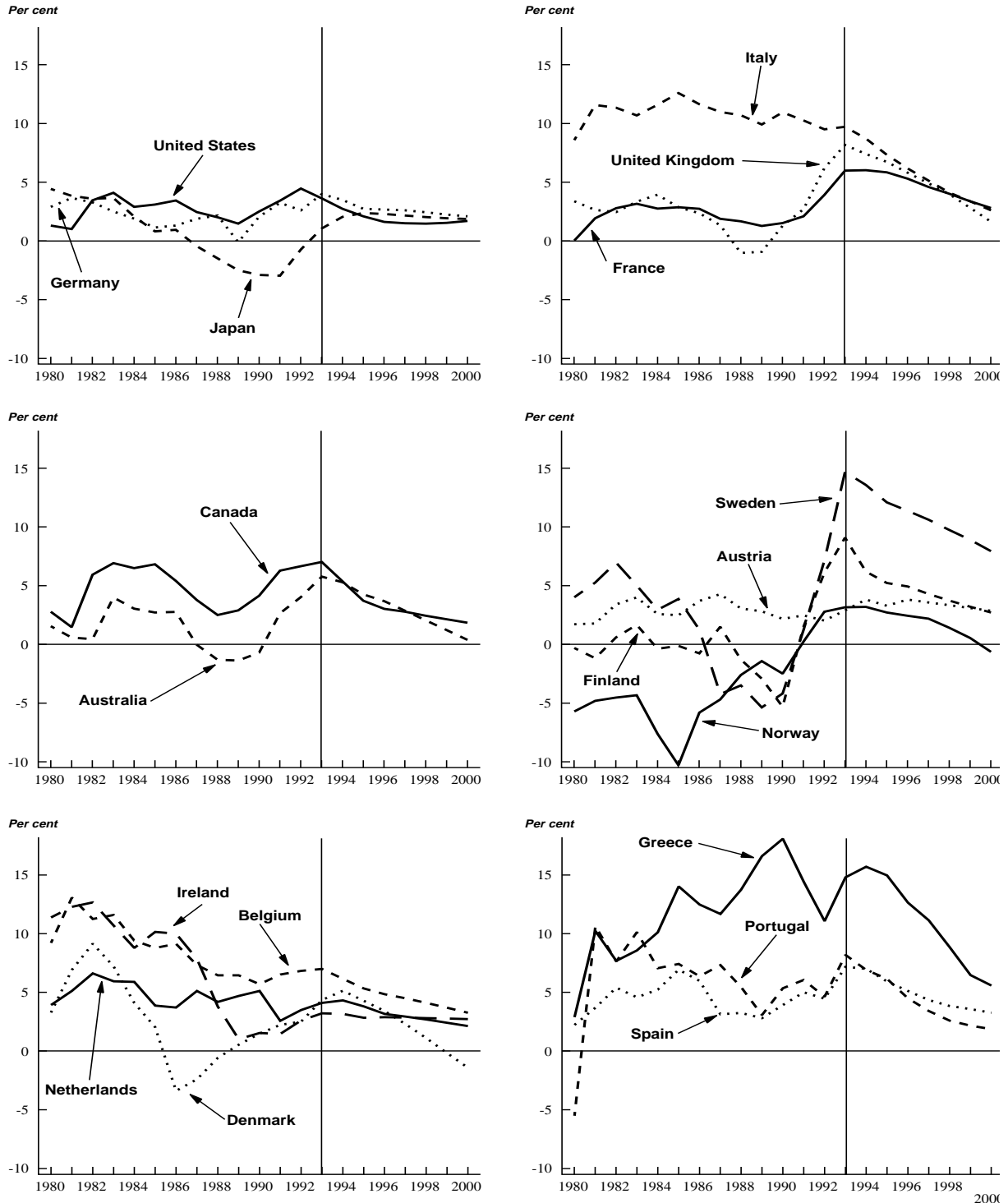
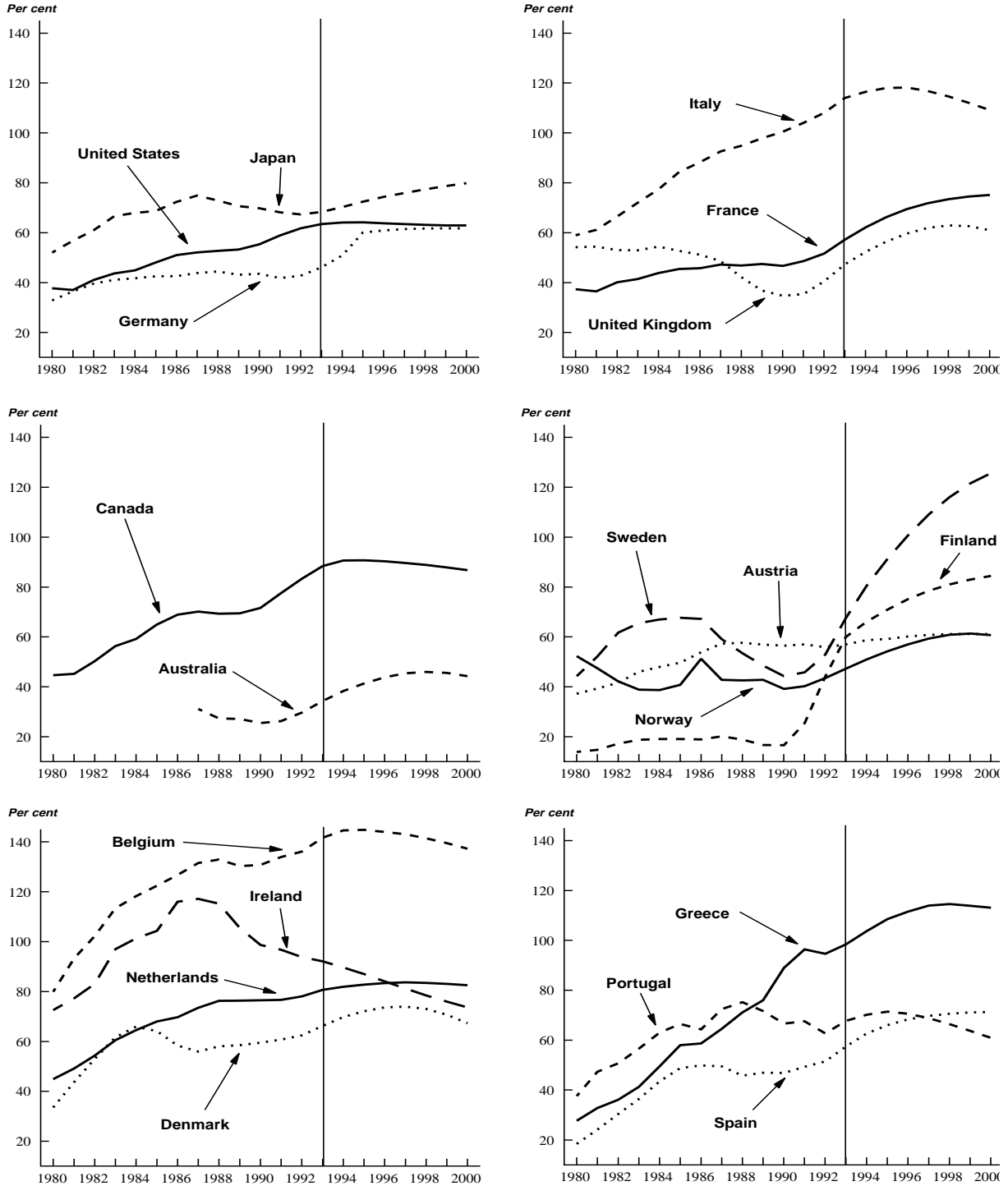


Figure 12. Reference scenario: general government budget deficit ¹ as a percentage of GDP



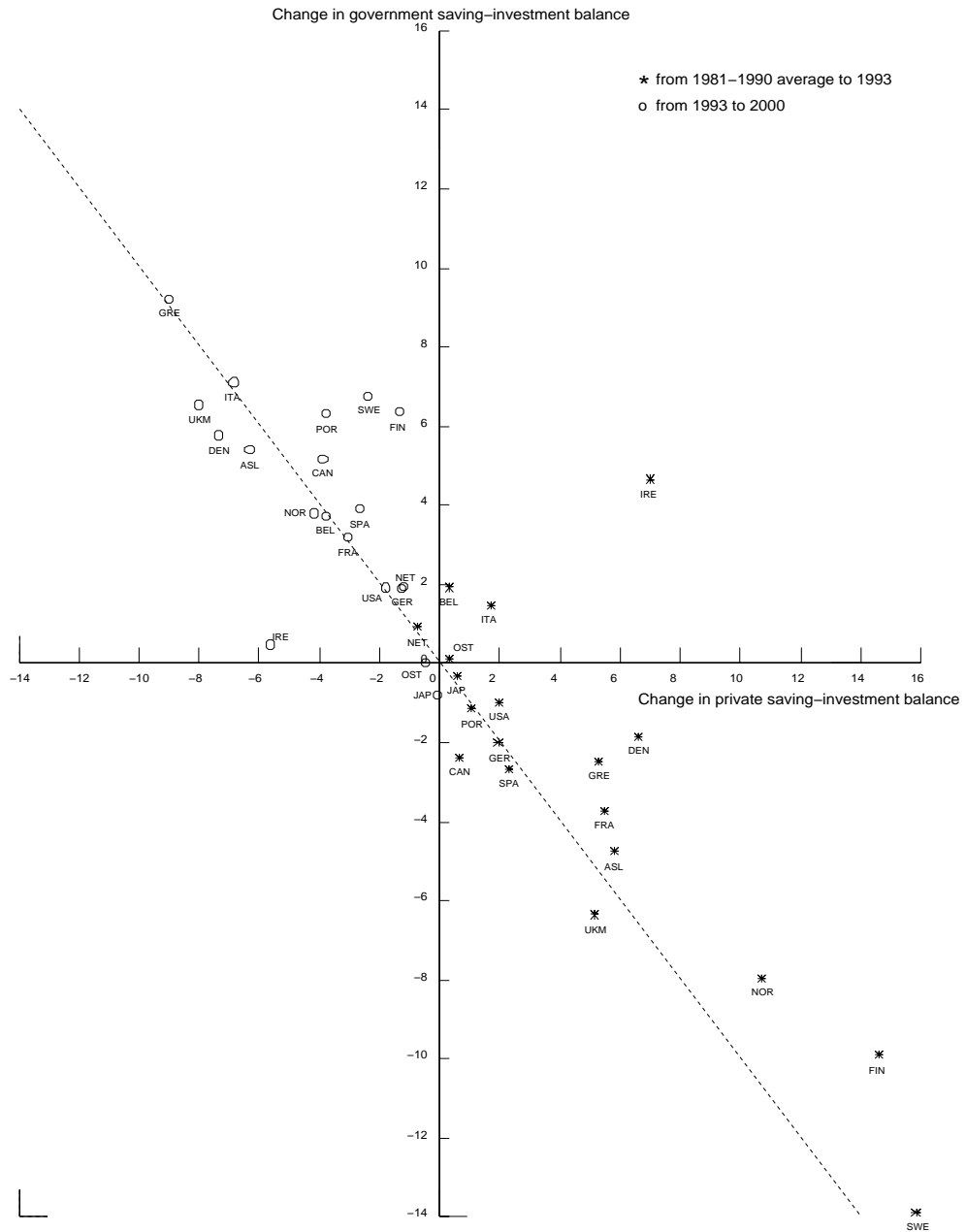
1. Projections for 1994 and 1995 are identical to those in OECD Economic Outlook no. 54 (December 1993). More recent fiscal developments, such as Japan's fiscal package as announced in February 1994 and the most recent budgets for the United States and the United Kingdom, are not included in these figures.

**Figure 13. Reference scenario: gross public debt ¹
as a percentage of GDP**



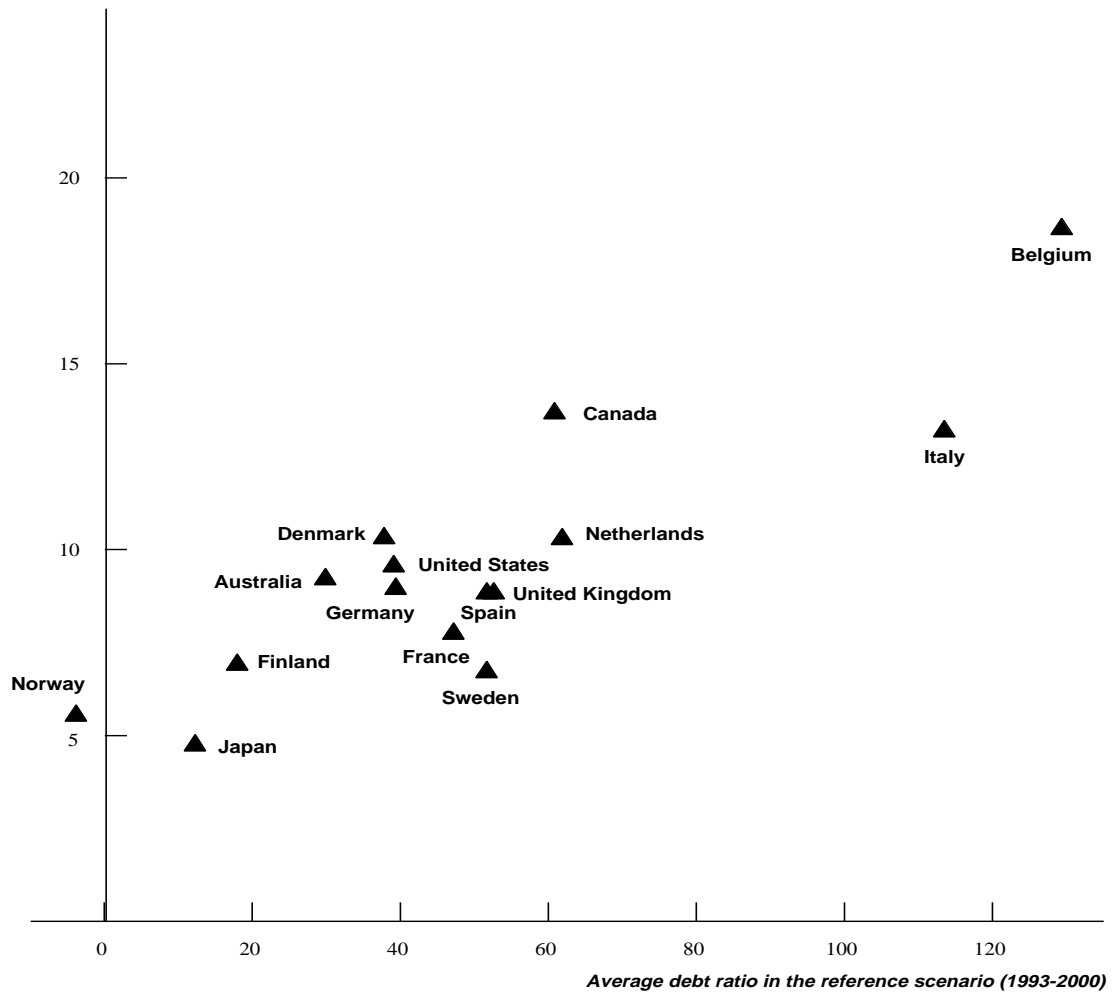
1. Projections for 1994 and 1995 are identical to those in OECD Economic Outlook no. 54 (December 1993). More recent fiscal developments, such as Japan's fiscal package as announced in February 1994 and the most recent budgets for the United States and the United Kingdom, are not included in these figures.

Figure 14. Reference scenario: changes in government and private saving–investment balances



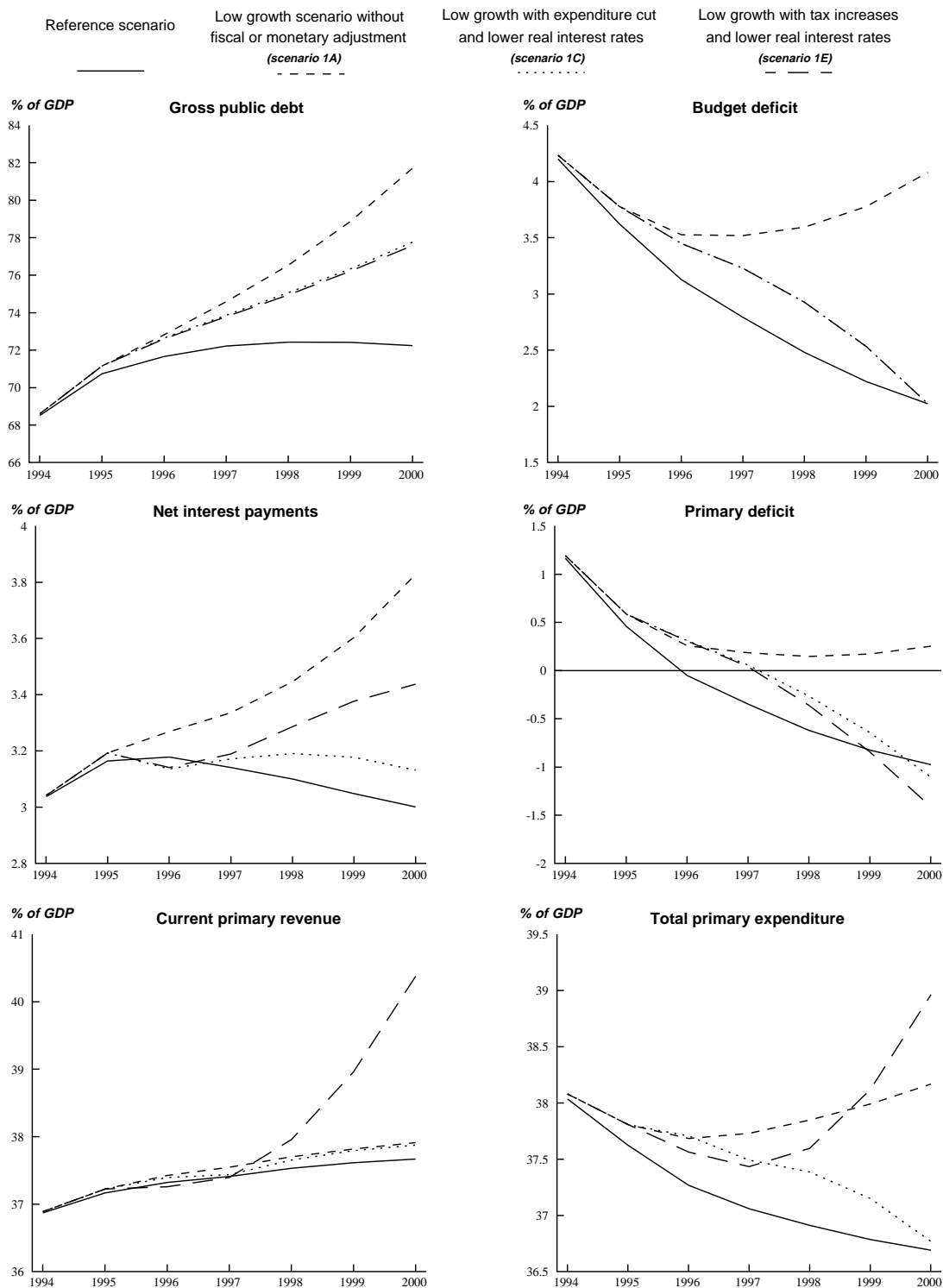
**Figure 15. Low-growth scenario without fiscal or monetary adjustment:
cross-country variation in deterioration in debt/GDP ratios compared to the reference scenario ¹**

*Percentage-point change in debt ratio
compared to reference scenario in 2000*



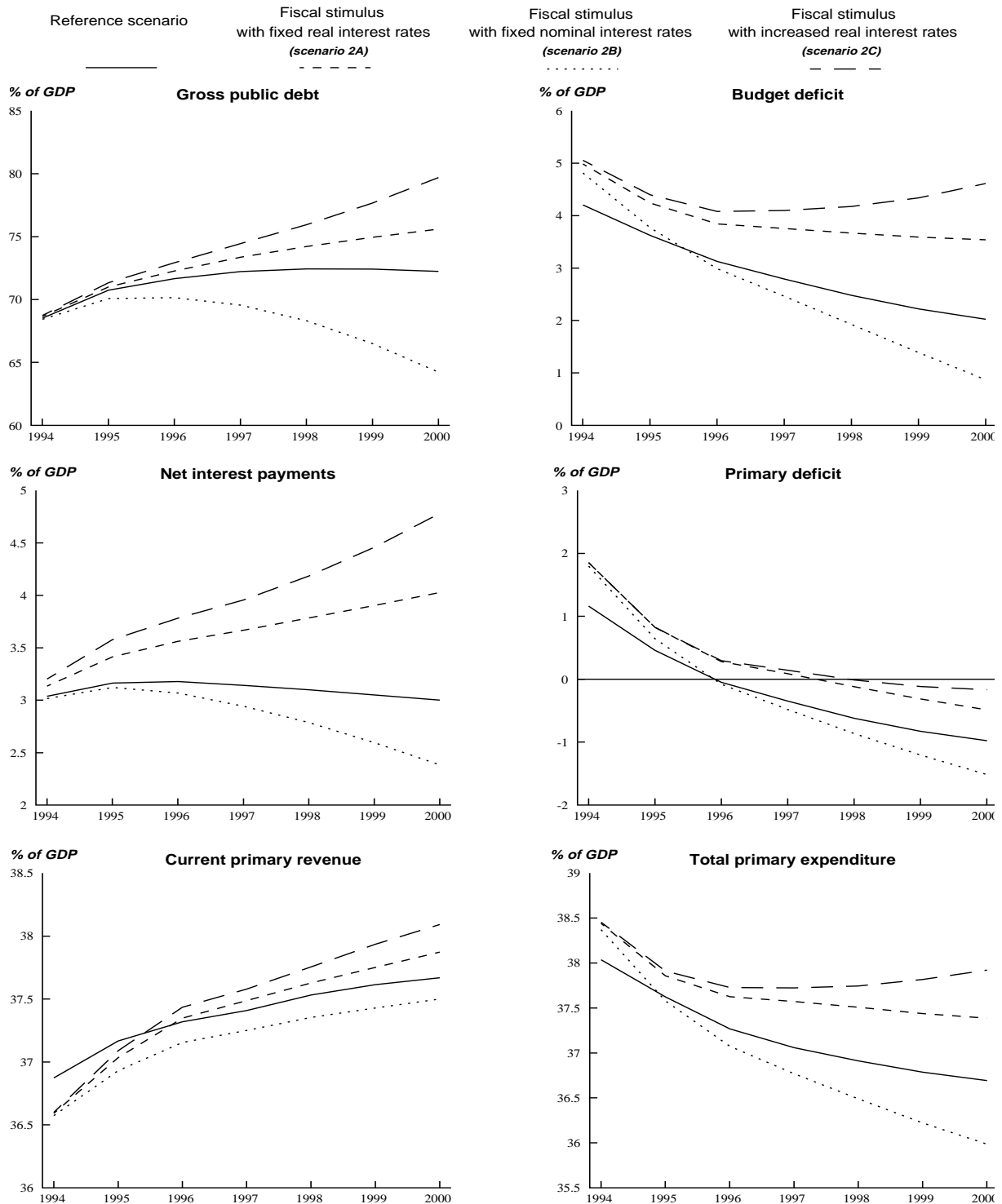
1. Data refer to net public debt.

Figure 16. Low growth scenario with and without fiscal or monetary adjustment: summary of fiscal results ¹



1. Reference scenario projections for 1994 and 1995 are identical to those in OECD Economic Outlook no. 54 (December 1993). More recent fiscal developments, such as Japan's fiscal package as announced in February 1994 and the most recent budgets for the United States and the United Kingdom, are not included in these figures.

Figure 17. Fiscal stimulus scenario: summary of fiscal results ¹



1. Reference scenario projections for 1994 and 1995 are identical to those in OECD Economic Outlook no. 54 (December 1993). More recent fiscal developments, such as Japan's fiscal package as announced in February 1994 and the most recent budgets for the United States and the United Kingdom, are not included in these figures.

Annex

Fiscal Indicators

1. To get a good picture of the overall fiscal situation, it is necessary to look at a set of indicators and form a judgement. No single indicator captures all the information about the fiscal situation perfectly but evaluating the situation by looking at a range of them should help to counterbalance the short-comings of each one. Deciding how much weight or emphasis should be given to different indicators however, is a more difficult task. It depends on the situation that each country finds itself in: in some circumstances one particular aspect of the underlying position, an explosive debt situation for example, may become dominant. But even when the fiscal deficit is more or less in balance there may still be cause for concern. One example is where overall tax and expenditure ratios are balanced but so high that incentives to work and save may be significantly distorted. Another example would be budget balance that masked significant (and non-transparent) inter-generational transfers (see Kotlikoff, 1992).

2. With any choice between indicators there is always a trade-off between simplicity and comprehensiveness. How serious this trade off is depends on who is using the indicators and for what purpose. Indicators are used by the general public (and most immediately, financial markets) in assessing the fiscal situation. Here, transparency and presentation are particularly important, especially if the government is trying to explain the need for a painful fiscal adjustment. A plethora of indicators, involving many technically superior adjustments may confuse markets rather than clarify exactly what is happening¹. But when indicators are being used by the government itself as an aid to decision-making, the criteria should be much stricter. The indicators should not mislead governments into making inappropriate decisions: they should embody whatever adjustments are necessary to present the whole fiscal picture and its economic implications and identify the pressure points building up. Making transparent any inconsistencies between the government's fiscal objectives and the capacity to achieve them on current policies would seem to be particularly important.

3. This annex looks only at the general government fiscal activities, but the assessment of the indicators is similar if the various levels of government (central and local) are considered. Another major function of government is regulation of economic activity. While not addressed here, some work has been done elsewhere in the OECD and by member governments in attempting to cost the aggregate effect of government regulation. The regulatory "Budget" approach, advocated by some in the United States, attempts to control the total costs imposed on economies by government regulation, through rules such as "no new regulation without compensating deregulation elsewhere". While this approach has its merits and its weaknesses, it does recognise the overall cost of regulation. For this paper, the important point is that

1. The confusion may be exacerbated if the markets suspect (rightly or wrongly) that a new technical adjustment is an attempt by the government to "fudge" the numbers.

substituting regulation for spending may show up as an improvement in the government's performance as measured by fiscal indicators -- but the overall economic cost may be both higher and less transparent.

4. The range of indicators that are reviewed below are based on measurable dimensions of the fiscal position and are derived from the government's accounts themselves. Another set of "indicators" also exist -- those that are based on the rating agencies and financial markets' assessment of, *inter alia*, the stance, strength and soundness of the government's fiscal position. These indicators include the country risk premia built into interest rates and the ratings of agencies such as Moody's, Standard and Poors and the World Economic Forum's competitiveness reports. These indicators are based on judgements rather than being objective, but they are important for two reasons: firstly the expected reaction of financial markets and rating agencies can limit the range of actions a government can undertake. Secondly, the reaction of financial markets and rating agencies may significantly influence the economy's response to shifts in fiscal policy.

5. Finally, any assessment of the seriousness of the fiscal situation must look at the evolution of the budget over a period of several years. Looking at one year alone could give an overly optimistic or pessimistic picture, given changes in economic conditions, one-off factors and the differences in costs or revenue flows between the start-up phase of a policy and its steady state. Looking at the position over several years should make the underlying trends more obvious.

Fiscal deficits

6. Until Keynesian theory, little attention was paid to the fiscal deficit, *per se*, although the accumulation of debt that it corresponded to was a concern. With the advent of aggregate demand management, the fiscal deficit became an important summary measure of the fiscal policy instrument of macroeconomic stabilisation. More recently, concern has mounted about high and rising public debt levels and renewed emphasis has been placed on the medium-term implications of deficits: given the close correlation between deficits and rising debt levels, high fiscal deficits provide *prima facie* evidence that there could be a potentially serious debt problem on the way.

7. The most commonly used indicators of the fiscal deficit are the cash deficit, the financial deficit (or net lending on an SNA basis), the financial deficit adjusted for changes in economic conditions and for inflation, net savings and the primary balance.

Cash deficit

8. The cash deficit shows the gap between cash received by the government and cash paid out that must be financed by borrowing and provides a proxy indicator for changes in net debt². Where the cash received includes the proceeds from asset sales, especially the privatisation of state-owned companies, these proceeds would normally represent simply a re-arrangement of the financial assets (from equity to cash) but they can be applied to reducing the gross stock of outstanding debt and thereby reducing the overall

2. Excluding changes in valuation that can affect the market value of debt levels. Exchange-rate changes can significantly affect debt levels without any corresponding change in the cash deficit. The valuation of gold stocks has also been a significant factor in the debt levels of the United States (see Eisner, 1986).

debt servicing burden. However, the inclusion of one-off factors such as privatisation proceeds in the cash deficit will obscure the underlying trends in revenue and spending and will not give a clear indication of the real progress being made towards sustainable fiscal consolidation: where these one-off revenues are used to finance new and ongoing spending programs the fiscal situation will become even more acute. An additional shortcoming is that the cash deficit does not adequately assign costs between periods -- for example, the stream of resources generated by an item of capital is generally 100 per cent written off in the first year, with no depreciation recorded in subsequent years. Looking across several years, this distortion should be less significant.

Financial deficits (net lending)

9. The financial deficit shows the receipts and payments that have taken place in each year, excluding those transactions associated with financial assets that the government holds as a financial intermediary. The actual financial deficit is a straightforward indicator and *ex post* can be derived directly from the National Accounts and does not require any assumptions or judgements. Using this indicator without further adjustments avoids arguments about the appropriate adjustments to make; judgements about appropriate adjustments become more crucial the greater the degree of uncertainty about current economic conditions and the greater uncertainty about underlying trends³. But looking at the unadjusted position may also make it harder to understand what driving forces are at work and to identify the overall stance of policy⁴. Basing fiscal policy on the unadjusted balance without considering other dimensions of the fiscal situation may result in a patently inappropriate policy stance. Looking at the actual budget deficit over a period of years reduces the extent to which the picture is distorted by short-term economic circumstances. However, in situations where debt levels and debt servicing burdens have become critical, the actual (unadjusted) deficit may dominate policy options. Actual financial deficits are shown in Table A1.

Adjusted financial deficits

10. It has long been established that fiscal deficits are in part endogenous and reflect changes in economic conditions. This first led to the development of the full employment budget surplus concept in the United States: routinely now, the OECD and IMF as well as some member governments, estimate the structural component of the budget deficit, using various methods. Any estimate of the structural deficit must embody an estimate of what the budget result would have been if some reference set of economic conditions had prevailed. The three most commonly discussed estimates of the reference conditions are based on potential output, trend output and the moving benchmark. The trend-based measure used in *Economic Outlook 54* is presented in Table A2.

11. Perhaps the ideal way to estimate the impact of economic conditions on the budget would be to identify line by line, those parts of the budget that are sensitive to economic conditions and compare the actual results with the results that would have been obtained if the reference conditions had prevailed. (Such a line by line approach can also identify other elements of the budget that are on "auto-pilot" and

3. Particularly about potential output given a significant supply shock such as a sustained shift in the terms of trade or given a significant and wide-ranging programme of structural reform.

4. The classic example of this was E. Carey Brown's demonstration that the fiscal deficits in the 1930s were the results of economic conditions rather than by lax fiscal policies (see Brown, 1956).

therefore are retarding fiscal consolidation efforts unless the underlying entitlements are changed.) This approach requires time and effort and a detailed knowledge of the revenue and spending components of the budget in question. However, some financial market analysts have been known to do it, in order to cross-check the credibility of the government's own statements about the impact of economic conditions.

12. Estimates of the structural balance based on potential output growth have some logical attractions: if output is consistent with potential output, over time, then any changes in the deficit due to the difference between current output and potential output should reverse themselves. However, there are a number of practical problems associated with estimating potential output, particularly in the context of significant structural change.

13. An easier-to-estimate approximation to potential output is to use trend output as the reference. The difference between the actual deficit and the deficit if output were at trend is considered to be cyclical. *Ex post*, the deficit must revert to this trend since the trend line is "best fitted"⁵ through actual output. This method becomes more difficult when looking forward when a judgement is required about future trends: these may change as a result of shocks or structural changes. Furthermore, recent literature suggesting that output growth follows a stochastic trend implies that output gaps do not accumulate and that output will not necessarily revert to the trend assumed in this method.

14. The moving benchmark approach (see Chouraqui *et al.*, 1990) avoids reference to a trend or assumptions about potential output and simply compares the fiscal deficit to what would have prevailed if the previous year's economic conditions had continued unchanged. In making these calculations, effort should be made to distinguish the change in economic conditions versus policy changes: the change in unemployment benefits due to higher numbers of unemployed should be separated from changes due to benefit payment rates. However, the interpretation of this indicator is slightly different to the potential or trend methods. This indicator makes no distinction between changes in economic conditions that are temporary versus those that are permanent⁶. It is therefore a less useful guide of the extent to which the deficit is assumed to be self correcting.

Inflation-adjusted deficits

15. Inflation affects the government's fiscal position in many ways but one adjustment in particular is significant: the adjustment for nominal debt servicing payments. The portion of debt servicing payments that is compensation for the erosion of the real value of the debt should be treated as principal repayment (as is the indexation payment of indexed debt (see Blejer and Cheasty, 1993). The extent to which this adjustment is necessary depends on the composition of public debt, between domestic and foreign

5. Using various weighting techniques one can put more or less weight on the more recent observations, which would be appropriate if it was felt that recent results indicated a change in potential output.

6. For example, this approach would capture a fall in tax revenues but could not identify what proportion was due to economic slackness versus a permanent shift to lower inflation, eliminating that component of fiscal drag.

denominated debt⁷. For the purposes of evaluating the seriousness of the fiscal situation, three issues are important:

- that the deficit situation can look better or worse because of the arbitrary classification of debt servicing payments "above or below the line", depending on the degree of index-linked and/or foreign denominated bond financing;
- that changes in the composition of debt between fixed rates and floating rates and between domestic and foreign denominated debt over time may show an improvement in the deficit that is illusory;
- that the mix of debt (and differences in inflation rates) can make a difference to comparisons of performance across countries.

16. Estimates of inflation-adjusted deficits for OECD countries are shown in Table A3. While this makes the deficits of previous years look significantly smaller for some countries, the conclusion for the current economic situation is that the current deficits signify a significantly more serious fiscal situation compared to earlier (inflationary) years. While the shift to low inflation has provided many economic benefits, it also means that the real fiscal gap is larger than before and closing it will be more difficult, especially without the degree of fiscal drag and capacity to provide nominal increases yet real cuts that inflation provided.

Primary balance

17. This balance is generally derived from the financial balance but with interest paid (and received) excluded Table A4. The primary balance in a sense simply excludes the fiscal inheritance. However, fiscal difficulties may be inherited but that does not make them go away and they must be dealt with. The appropriate primary balance therefore is very closely connected with the debt dynamics and cannot be interpreted particularly usefully on its own.

Government savings (current account of government)

18. Net Savings show the balance on current spending and revenue, excluding any capital transactions, including fixed investment. This indicator recognises that the cost of accumulating fixed assets which yield a stream of services over several years is different in nature to current spending (and multi-year financing through borrowing may be more appropriate). There are two difficulties with this approach: firstly, few countries have the full accrual accounting systems required to spread (through depreciation) the cost of the stream of services across several years. However, a number of countries are moving towards either full accrual accounting systems or accrual adjustments for significant parts of their government sector accounts. Secondly, some would argue that the distinction between current and capital spending (and the currently popular assumption that capital spending is inherently more valuable than current spending) is arbitrary and misleading because significant categories of current spending especially in education and health) do generate

7. For foreign debt the adjustment comes through exchange rate movements. To the extent that these do not occur -- for a period of time under a fixed exchange rate regime -- bond holders are not compensated. Where they do occur, the exchange rate revelations of the debt is not included in the deficit.

a stream of benefits that spread across several years. This issue is not unique to public sector accounting. Similar questions arise on the appropriate accounting treatment of in-firm training which may generate returns to both the firm and the worker for some years⁸. Despite these shortcomings, this indicator does draw the useful distinction between fixed capital and current spending. (It does not however, imply anything about the desirability of particular capital projects or the merits of additional capital spending versus retiring debt or reducing taxes). Net savings are shown in Table A5.

Expenditure and revenue to GDP

19. Many would argue that looking only at the deficit can be misleading, since it is the difference between two very large numbers. As with any such difference, it is likely to bounce around and reflect far bigger changes than those in revenue and spending. This would argue for paying closer attention to revenue and spending and developments in those. Even where the budget is in balance, revenue and spending ratios may indicate that the overall weight of government is providing a significant drag on the macroeconomic performance of the government. To some extent the size of the government sector reflects different countries' preferences and ways of doing things, and it is difficult to identify a threshold beyond which macroeconomic performance is reduced. In addition, the complexities of incentives generated by tax and spending programs may significantly alter behaviour that is quite masked by looking only at the overall ratios to GDP. But nevertheless, these ratios provide a starting point for debate and judgements about how much is too much. The overall burden of taxation and whether it is increasing or decreasing, tells us about the likely future policy choices and macroeconomic consequences. Where governments have focused on expenditure ratios to GDP, it is usually for two reasons: to provide self discipline and pressure to keep on trying to cut out inefficient spending programs, and to make an objective of lower taxes consistent with fiscal consolidation. Expenditure and revenue to GDP statistics are shown in Table A6 and Table A7.

Balance-sheet approaches

20. The various measures of the deficit reviewed above are proxies for assessing the seriousness and ultimately the solvency of the government's position. Debt measures and net worth provide a way of addressing these changes in balance sheet components more directly. The ideal would be to construct a comprehensive balance sheet including all assets and liabilities for the government (and households and businesses) (see Buiter in Blejer and Cheasty (eds.), 1993). This approach would show the likely need for changes to policies as the future cost of them becomes unsustainable.

Gross and net debt

21. Gross debt provides an indicator of the likely future debt servicing burden of the economy. It also may be a better indicator of fiscal solvency in countries where the government's financial assets include significant investments of the social security funds, but these assets will be matched (or even exceeded) by future social security liabilities, or if they include loans that are unlikely to be fully realised. In that case,

8. Where health and education services are produced by the private sector, they are still sold to generate current revenue for the supplier (as the sale of capital equipment would). It seems appropriate then to consider the government producer also as a supplier "selling" these services and account for them in the same way.

net debt would give an unduly rosy picture of the government's solvency. However, where the financial assets are fully realisable then net debt will give a more reliable picture of the extent to which the government is solvent⁹. Gross debt and net debt as ratios to GDP are given in Table A8 and Table A9¹⁰.

22. Some (particularly Eisner and Buiters) have argued that nominal debt should be recalculated in real terms to capture the fact that the purchasing power of nominally fixed debt is diminished. The adjustment required depends on the proportion of indexed domestic debt, non-indexed domestic debt and foreign denominated debt. The first adjustment is to convert debt from par to market value in domestic currency¹¹. The second adjustment would be to then deflate the stock outstanding to arrive at the real value of the debt. However, if current value debt is analysed in relation to current value GDP, then the diminishing real debt burden should be apparent from comparing with the nation's flow of resources.

Net worth

23. A number of people have considered the relevance of net worth to government. Whereas net worth (net equity) are balance sheet concepts that can be quite clearly defined for companies and households, the task is not so easy for government. First the boundaries of government are not always clear, secondly, some of the government's assets are difficult to value, especially when they are part of 'National Heritage' and do not yield any stream of income¹² or if they are part of social infrastructure that yields significant positive externalities. Thirdly, it is difficult to know how to incorporate the government's power to tax and spend into the balance sheet.

24. Nevertheless, some estimates have been made, using SNA data. These are very approximate and most usefully serve to illustrate the trends in net worth. Perhaps the two most important assets that should be incorporated into an assessment of net worth are the physical stock of capital and the stock of mineral resources. In the former case, an accumulation of net financial debt that was matched by an accumulation of physical capital would not be cause for concern, provided that the physical capital was earning a rate of return that was sufficient to cover the debt servicing burden¹³. In the latter case, a depletion of the

9. There is still, of course, the efficiency question that if the stream of income from the financial assets is less than the debt servicing costs on the gross debt, then the assets should be liquidated. If they can't be liquidated then they should be discounted accordingly.

10. For a comparison with long-term historical levels, see Chouraqui *et al.*, 1986.

11. The adjustment for the outstanding stock of domestic bonds is to recognise that as interest rates rise (fall) the price of bonds fall (rise) to induce people to continue holding them. The adjustment for foreign denominated bonds comes through the conversion to domestic currency.

12. Though they do yield a stream of services. National parks are one example. Some would suggest that these could be valued by looking at their opportunity cost.

13. This is the aggregate result of the microeconomic criteria that the projects concerned should meet an efficiency criteria.

stock of mineral resources can lead to a significant deterioration in the government's net worth even though net debt had not changed¹⁴.

25. A full balance-sheet presentation can provide a picture not only of the evolution of the gap between assets and liabilities but to show where the driving forces for change in these is coming from and to provide a basis for a full risk-return analysis of different balance sheet compositions. However, to date only the New Zealand Government has produced a full balance-sheet presentation of its accounts.

Inter-generational accounts

26. All government decisions have some implications for equity. Where this equity involves taking from one person and giving to another in the same time period, the redistribution is relatively obvious. However, government budgets involve inter-generational redistribution as well. The appropriate redistribution -- as with all equity questions -- is beyond the realm of economics. Nevertheless a particular issue arises with the inter-generational implications of budgets: that they are far from transparent. This means that the public's choices about appropriate budget stance may be distorted by "inter-generational illusion" where the implications for themselves in the future or for their descendants are not obvious. It also may distort the behavioural responses of individuals and their assessment of the implications of budget policies for their lifetime income.

27. While generational accounts are not available for OECD countries, Kotlikoff provides some discussion of different budget policies in the United States and their inter-generational implications. His work serves as a useful reminder of the complex interactions between budgets and the rest of the economy. It also serves as a reminder that simple summary indicators may be missing a lot of what is going on.

28. Future entitlements of people insured under public pension schemes are not included in the most commonly used measures of public-sector financial positions, even though there are recent cases where government departments have attempted to make estimates of future entitlements in the framework of so-called Generational Accounting projects¹⁵. Some would argue that pension liabilities do not represent real indebtedness, as no promises are being made by the government as to the future levels of public pension benefits and contributions (the first could always be lowered and the latter be raised). This is a fallacy, however, as can be demonstrated by looking at this issue from two different angles. First, the same type of reasoning applied to official debt would give the absurd result that it would be irrelevant and in fact non-existent, as the debt could be redeemed by raising taxes or spending cuts or, in the extreme, it might not be repaid at all (there are numerous examples in the past where this has actually occurred). Second, the similarity between contingent and official debt becomes clear when public pensions are privatised. If the government decided to farm-out the public pension system to a private insurer, without changing the rules of the system, the insurer would make an actuarial estimate of the contingent liability, and require a trust

14. See Boskin (1988) for an estimate of the size of mineral resource flows. The above situation would arise, if a country treated revenues from mineral rights as current income and spent it on providing current services. The budget might be in balance, but the country's overall wealth is being reduced.

15. For the United States see Office of Management and Budget (1992) and for Italy see Franco *et al.* (1992).

fund to offset this liability. The government would have to decide to issue bonds to the amount of the trust fund, which is to be handed over to the insurer. Hence, what privatisation of the pension system would do is to convert the contingent liability into "hard" debt.

29. Another view is that contingent liabilities do not burden the government account, as they are not interest bearing. This, too, is a fallacy, as it neglects the *opportunity cost* of the unfunded liability, consisting of lost interest income, as compared to a fully funded system, which is equivalent to interest payments on "hard" debt (see Buiter, 1983). To sum up, the only real difference between official and contingent debt is that the first is based on property rights and the latter on political commitments (which are subject to democratic voting and hence, admittedly, are more easily altered than property rights). For further discussion of public pensions and estimates of the net present value of unfunded liabilities, see Van den Noord and Herd (1993).

ANNEX TABLES

Data presented in the following tables correspond to those found in the
OECD *Economic Outlook 54* (December 1993).

More recent fiscal developments, such as Japan's fiscal package as announced in February 1994
and the most recent budgets for the United States and the United Kingdom,
are not included in these tables.

Table A1. General government financial balances

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Surplus (+) or deficit (-) as a percentage of nominal GDP																			
United States (a)	0.1	0.4	-1.3	-1.0	-3.4	-4.1	-2.9	-3.1	-3.4	-2.5	-2.0	-1.5	-2.5	-3.4	-4.5	-3.6	-2.7	-2.1	
Japan	-5.5	-4.7	-4.4	-3.8	-3.6	-3.6	-2.1	-0.8	-0.9	0.5	1.5	2.5	2.9	3.0	0.7	-1.0	-2.0	-2.4	
Germany	-2.4	-2.6	-2.9	-3.7	-3.3	-2.5	-1.9	-1.1	-1.3	-1.9	-2.2	0.1	-2.1	-3.2	-2.6	-4.0	-3.5	-2.7	
France	-2.1	-0.8	0.0	-1.9	-2.8	-3.2	-2.8	-2.9	-2.7	-1.9	-1.7	-1.3	-1.5	-2.1	-3.9	-6.0	-6.0	-5.8	
Italy	-10.4	-10.2	-8.6	-11.6	-11.3	-10.7	-11.6	-12.6	-11.6	-11.0	-10.7	-9.9	-10.9	-10.2	-9.5	-9.7	-8.7	-7.3	
United Kingdom	-4.4	-3.3	-3.4	-2.6	-2.5	-3.3	-3.9	-2.9	-2.4	-1.3	1.0	0.9	-1.3	-2.7	-6.2	-8.2	-7.4	-6.7	
Canada	-3.2	-2.0	-2.8	-1.5	-5.9	-6.9	-6.5	-6.8	-5.4	-3.8	-2.5	-2.9	-4.1	-6.3	-6.6	-7.0	-5.4	-3.7	
Total of above countries	-2.6	-2.1	-2.7	-2.8	-4.0	-4.3	-3.5	-3.3	-3.3	-2.4	-1.8	-1.1	-2.0	-2.7	-3.9	-4.3	-3.8	-3.3	
Australia	-2.7	-2.2	-1.5	-0.6	-0.4	-4.0	-3.0	-2.7	-2.7	0.0	1.3	1.4	0.7	-2.6	-4.0	-5.8	-5.3	-4.2	
Austria	-2.8	-2.4	-1.7	-1.8	-3.4	-4.0	-2.6	-2.5	-3.7	-4.3	-3.0	-2.8	-2.2	-2.5	-2.0	-2.9	-3.8	-3.3	
Belgium	-6.7	-7.4	-9.2	-13.1	-11.2	-11.6	-9.4	-8.8	-9.1	-7.3	-6.5	-6.4	-5.7	-6.5	-6.8	-7.0	-6.1	-5.3	
Denmark	-0.4	-1.7	-3.3	-6.9	-9.1	-7.2	-4.1	-2.0	3.4	2.4	0.6	-0.5	-1.5	-2.2	-2.5	-4.3	-5.1	-4.3	
Finland (b)	1.4	0.4	0.3	1.2	-0.6	-1.7	0.4	0.1	0.8	-1.5	1.3	2.9	5.3	-1.5	-6.1	-9.1	-6.2	-5.2	
Greece	-1.7	-2.5	-2.9	-10.2	-7.7	-8.6	-10.1	-14.0	-12.5	-11.7	-13.7	-16.6	-18.1	-14.4	-11.1	-14.8	-15.7	-14.9	
Ireland	-8.6	-10.2	-11.4	-12.3	-12.6	-10.7	-8.8	-10.1	-10.0	-7.8	-3.8	-1.0	-1.5	-1.4	-2.6	-3.2	-3.2	-2.8	
Netherlands	-2.5	-3.6	-3.9	-5.1	-6.6	-5.9	-5.9	-3.9	-3.7	-5.1	-4.2	-4.7	-5.1	-2.6	-3.5	-4.1	-4.3	-3.8	
Norway	-0.1	1.3	5.7	4.8	4.5	4.3	7.6	10.3	5.8	4.7	2.6	1.4	2.5	-0.2	-2.8	-3.2	-3.2	-2.7	
Portugal	-6.9	-6.3	5.5	-10.6	-7.6	-10.1	-7.0	-7.4	-6.4	-7.3	-5.4	-3.1	-5.3	-6.0	-4.6	-8.2	-6.9	-6.1	
Spain	-2.0	-1.8	-2.2	-3.7	-5.4	-4.6	-5.2	-6.9	-6.0	-3.1	-3.3	-2.8	-3.9	-5.0	-4.5	-7.2	-7.0	-5.9	
Sweden	-0.5	-2.9	-4.0	-5.3	-7.0	-5.0	-2.9	-3.8	-1.3	4.2	3.5	5.4	4.2	-1.2	-7.1	-14.7	-13.6	-12.1	
Total of above smaller countries	-2.6	-3.0	-2.6	-4.7	-5.3	-5.5	-4.6	-4.8	-4.2	-2.9	-2.4	-2.2	-2.7	-3.9	-4.7	-6.9	-6.6	-5.7	
Total of above European countries	-4.1	-3.8	-3.4	-5.0	-5.2	-5.0	-4.8	-4.8	-4.3	-3.7	-3.3	-2.5	-3.7	-4.4	-5.1	-6.8	-6.3	-5.6	
Total of above OECD countries	-2.6	-2.2	-2.7	-3.0	-4.2	-4.5	-3.7	-3.5	-3.5	-2.5	-1.9	-1.2	-2.1	-2.9	-4.0	-4.6	-4.2	-3.6	
General government financial balances excluding social security																			
United States (a,c,d)	0.3	0.5	-1.2	-0.8	-3.3	-4.1	-3.0	-3.4	-3.8	-3.0	-2.9	-2.5	-3.5	-4.4	-5.3	-4.4	-3.6	-3.0	
Japan (c)	-7.9	-7.3	-7.0	-6.6	-6.3	-6.3	-4.8	-3.9	-3.9	-2.3	-1.6	-0.8	-0.6	-0.8	-2.8	-4.5	-5.5	-5.9	

a) Excludes deposit insurance outlays.

b) In the latest version of Finnish national accounts, the semi-public pension scheme has been included in the general government sector. This revised institutional setup is incorporated in this table from 1990 onwards.

c) OECD estimates, derived from fiscal year data converted to a calendar year basis. The coverage of the social security systems is not the same in the United States and Japan.

d) Includes the surplus of state and local government pension schemes.

Table A2. General government structural balances (a)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Surplus (+) or deficit (-) as a percentage of trend GDP																			
United States (b)	-1.0	-0.8	-1.6	-0.9	-1.8	-2.7	-2.6	-3.1	-3.6	-2.8	-2.8	-2.3	-3.1	-3.6	-4.0	-3.3	-2.7	-2.2	
Japan (c)	-5.6	-5.5	-5.1	-4.3	-3.6	-3.1	-1.6	-0.7	-0.2	1.3	1.5	2.2	2.3	2.5	0.9	0.8	1.0	1.2	
Germany (c)	-3.3	-4.6	-4.3	-4.0	-2.1	-1.2	-0.9	-0.1	-0.3	-0.6	-1.6	0.0	-3.5	-5.2	-4.5	-3.7	-2.3	-1.4	
France	-2.7	-1.9	-0.8	-2.2	-3.1	-2.6	-1.6	-1.4	-1.3	-0.3	-1.0	-1.5	-1.8	-1.5	-2.8	-3.2	-2.4	-2.3	
Italy	-10.4	-11.0	-9.6	-11.9	-10.8	-9.5	-10.5	-11.5	-10.8	-10.5	-11.0	-10.5	-11.4	-10.1	-8.6	-7.6	-6.3	-4.9	
United Kingdom	-6.3	-5.9	-4.5	-1.5	-0.2	-1.2	-1.6	-1.1	-1.7	-2.1	-1.1	-1.6	-2.9	-1.9	-3.5	-5.0	-4.4	-3.9	
Canada	-4.1	-2.9	-3.0	-2.0	-3.5	-4.5	-5.5	-6.7	-5.5	-4.4	-4.1	-4.3	-4.1	-4.0	-3.3	-3.7	-2.6	-1.6	
Total of above countries	-3.4	-3.4	-3.3	-2.9	-2.9	-3.1	-2.8	-2.9	-3.0	-2.2	-2.3	-1.9	-2.7	-2.9	-3.3	-3.1	-2.3	-1.8	
Australia	-2.7	-2.5	-1.8	-1.0	0.2	-2.4	-2.9	-3.6	-2.9	-0.1	1.0	0.9	0.7	-1.3	-2.0	-3.6	-3.3	-2.5	
Austria	-3.1	-4.0	-3.7	-2.4	-3.5	-3.9	-2.0	-2.1	-2.7	-3.0	-2.7	-2.9	-3.1	-3.4	-2.2	-1.5	-1.8	-1.3	
Belgium	-7.5	-8.4	-11.5	-13.5	-11.3	-10.6	-8.5	-7.2	-7.3	-5.6	-6.5	-7.5	-7.5	-8.4	-8.0	-6.2	-4.7	-3.9	
Denmark	-1.0	-3.4	-3.4	-4.9	-7.4	-5.6	-3.7	-2.8	1.8	1.8	0.5	0.3	-0.6	-0.9	-0.6	-1.1	-2.2	-1.9	
Finland (d)	3.2	0.2	-1.2	0.4	-1.6	-2.6	-0.5	-0.8	0.0	-2.3	-0.7	-0.3	3.0	1.2	0.3	-0.2	4.0	4.4	
Greece	-2.3	-3.2	-3.6	-10.3	-7.3	-7.6	-9.5	-14.1	-12.5	-10.6	-14.0	-17.9	-17.9	-15.1	-11.4	-14.5	-14.9	-14.3	
Ireland	-11.0	-12.6	-13.8	-14.8	-14.7	-10.5	-9.2	-10.1	-7.4	-5.6	-1.8	-0.4	-3.2	-2.5	-4.1	-4.1	-3.6	-2.8	
Netherlands	-4.5	-6.1	-6.0	-5.8	-5.3	-4.1	-4.7	-3.1	-2.9	-3.6	-3.0	-5.0	-6.7	-4.3	-4.9	-4.2	-3.5	-3.1	
Norway (e)	-2.9	-3.1	-2.1	-2.9	-2.7	-4.3	-2.5	-1.7	-0.3	-1.2	-0.7	-2.2	-3.0	-4.7	-7.0	-7.6	-7.4	-7.7	
Portugal	-7.1	-7.4	4.1	-12.4	-9.0	-10.1	-4.9	-4.9	-4.1	-5.7	-3.9	-2.1	-4.7	-4.8	-2.5	-4.5	-2.5	-1.7	
Spain	-2.8	-2.3	-2.8	-3.8	-5.8	-4.5	-4.3	-5.8	-4.9	-3.2	-4.3	-4.7	-6.2	-6.9	-5.3	-5.9	-4.6	-3.4	
Sweden	0.0	-4.7	-5.8	-5.7	-6.9	-5.0	-4.7	-5.8	-3.7	0.8	-0.4	0.8	-0.3	-3.4	-7.0	-11.1	-10.1	-9.4	
Total of above smaller countries	-3.3	-4.2	-4.0	-5.3	-5.5	-5.2	-4.5	-4.9	-4.0	-2.8	-3.0	-3.5	-4.3	-4.8	-4.6	-5.3	-4.4	-3.7	
Total of above European countries	-4.9	-5.3	-4.7	-5.2	-4.7	-4.1	-3.8	-3.8	-3.5	-3.2	-3.6	-3.5	-4.9	-4.9	-4.9	-5.0	-4.0	-3.2	
Total of above OECD countries	-3.4	-3.5	-3.4	-3.2	-3.2	-3.4	-3.0	-3.1	-3.1	-2.3	-2.4	-2.1	-2.9	-3.1	-3.5	-3.4	-2.6	-2.1	

a) OECD estimates of the structural component of general government financial balances. The estimates are surrounded by large margins of error, reflecting uncertainty as to the present size and future growth trend output, and the degree to which elimination of the output gap would translate into enhanced tax revenues and reduced expenditure.

b) Excludes deposit insurance outlays. Receipts relating to Operation Desert Storm, amounting to 0.6 per cent in 1991, are excluded.

c) Excludes expenditure related to Operation Desert Storm in 1991 amounting to 0.2 per cent of GDP for Japan and to 0.4 per cent of GDP for Germany.

d) In the latest version of Finnish national accounts, the semi-public pension scheme has been included in the general government sector. This revised institutional setup is incorporated in this table from 1990

e) Refers to the mainland economy of Norway.

Table A.3. General government inflation-adjusted financial balances

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
	Surplus (+) or deficit (-) as a percentage of nominal GDP																		
United States (a)	1.3	1.6	0.1	0.2	-2.6	-3.2	-2.1	-2.3	-2.7	-1.5	-1.0	-0.4	-1.3	-2.4	-3.6	-2.8	-1.9	-1.2	
Japan	-5.1	-4.3	-3.2	-3.0	-3.0	-3.1	-1.4	-0.2	-0.8	0.5	1.5	2.8	3.2	3.2	0.8	-1.0	-2.0	-2.3	
Germany	-2.2	-2.1	-2.3	-2.9	-2.6	-2.0	-1.5	-0.8	-1.4	-1.8	-1.9	0.7	-1.5	-2.5	-1.6	-3.1	-2.6	-2.1	
France	-1.0	0.5	1.7	-0.2	-1.1	-1.6	-1.4	-1.7	-2.1	-1.1	-1.0	-0.4	-0.8	-1.3	-3.3	-5.3	-5.3	-5.2	
Italy	-3.4	-2.3	1.7	-2.5	-2.0	-1.7	-3.5	-5.9	-6.6	-6.4	-5.7	-4.2	-5.2	-3.8	-4.1	-5.0	-4.2	-4.0	
United Kingdom	-0.3	2.4	2.8	1.8	1.0	-1.4	-1.9	-0.7	-0.6	0.3	2.7	2.5	-0.1	-1.1	-4.9	-7.1	-6.2	-5.4	
Canada	-3.3	-2.2	-2.8	-1.6	-5.9	-6.6	-6.1	-6.3	-4.8	-3.1	-1.8	-2.0	-3.2	-5.1	-6.3	-6.4	-4.7	-3.1	
Austria	-1.7	-1.1	0.2	0.5	-1.5	-2.9	-0.5	-1.2	-2.9	-3.8	-2.3	-1.5	-0.6	-0.8	0.0	-1.1	-2.4	-2.0	
Belgium	-4.4	-5.3	-5.4	-7.3	-5.4	-6.0	-4.3	-3.5	-8.4	-5.7	-5.1	-3.3	-2.8	-3.8	-4.5	-4.3	-3.6	-3.1	
Denmark	-1.5	-2.7	-3.9	-7.0	-8.5	-6.4	-3.0	-1.2	3.8	2.8	0.9	-0.1	-1.2	-1.9	-2.3	-4.2	-4.7	-3.8	
Finland (b)	0.3	-0.6	-1.0	-0.1	-1.5	-2.4	-0.2	-0.3	0.7	-1.6	1.1	2.6	4.8	-2.2	-6.7	-9.5	-6.4	-5.4	
Greece	1.0	1.0	1.5	-5.4	-2.9	-3.9	-5.0	-8.2	-5.2	-6.2	-7.7	-9.5	-7.4	-2.3	-1.4	-5.3	-8.0	-8.4	
Ireland	-4.7	-2.9	-2.4	-3.5	-6.3	-6.5	-4.9	-7.3	-7.2	-6.0	-1.7	1.5	-0.4	0.0	-0.9	-1.9	-1.1	-0.7	
Netherlands	-1.6	-2.7	-2.4	-3.5	-5.1	-5.0	-5.1	-3.0	-3.6	-5.2	-3.9	-4.0	-3.9	-0.7	-1.8	-2.9	-3.0	-2.6	
Norway	-0.8	0.9	4.8	3.2	3.2	3.2	6.7	9.3	4.1	2.7	1.0	0.3	1.3	-1.3	-3.4	-3.6	-3.5	-3.0	
Spain	-1.8	-1.3	-1.5	-2.8	-4.1	-3.0	-3.3	-5.4	-3.5	-1.5	-1.8	-0.8	-2.1	-3.0	-2.4	-5.4	-5.3	-4.6	
Sweden	-3.8	-5.0	-6.9	-7.2	-8.1	-5.8	-3.2	-4.0	-1.3	4.1	3.1	4.6	2.9	-2.5	-7.4	-14.7	-13.2	-11.5	

a) Excludes deposit insurance outlays.

b) In the latest version of Finnish national accounts, the semi-public pension scheme has been included in the general government sector. This revised institutional setup is incorporated in this table from 1990 onwards.

Table A4. General government primary balances

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
United States (a)	1.2	1.5	-0.1	0.5	-1.8	-2.4	-0.9	-1.0	-1.4	-0.5	-0.1	0.5	-0.4	-1.1	-2.3	-1.7	-0.8	0.0
Japan (b,c)	-4.9	-3.9	-3.4	-2.5	-2.1	-2.0	-0.3	0.9	0.7	1.7	2.5	3.4	3.5	3.3	1.0	-0.7	-1.6	-1.8
Germany (b)	-1.5	-1.5	-1.6	-2.1	-1.3	-0.2	0.4	1.2	1.0	0.5	0.2	2.3	0.0	-1.0	0.1	-1.0	-0.1	1.7
France	-1.5	0.0	0.8	-0.7	-1.6	-1.4	-0.9	-0.8	-0.6	0.3	0.5	0.9	0.9	0.5	-1.0	-2.8	-2.7	-2.5
Italy	-6.0	-5.8	-3.9	-6.1	-4.8	-3.7	-4.1	-5.2	-3.8	-3.6	-3.1	-1.5	-1.9	-0.5	1.4	1.2	1.5	2.3
United Kingdom	-1.8	-0.5	-0.3	0.7	0.7	-0.2	-0.6	0.5	0.8	1.7	3.7	3.3	1.1	-0.6	-4.1	-5.6	-4.4	-3.4
Canada	-1.5	-0.3	-0.9	0.9	-3.0	-4.0	-2.9	-2.8	-1.2	0.4	1.8	2.0	1.3	-0.8	-1.4	-1.7	-0.5	0.7
Total of above countries	-1.3	-0.7	-1.1	-0.9	-1.9	-2.0	-1.0	-0.7	-0.8	0.0	0.6	1.4	0.5	-0.1	-1.1	-1.6	-1.1	-0.4
Australia (b)	-2.1	-1.5	-0.6	0.4	0.5	-2.8	-1.4	-0.8	-0.6	2.2	3.1	3.3	2.5	-1.4	-3.1	-4.7	-4.3	-3.3
Austria	-1.1	-0.6	0.0	0.2	-1.1	-1.7	0.2	0.4	-0.8	-1.2	0.2	0.3	1.0	0.9	1.3	0.6	-0.3	0.1
Belgium (b,c)	-3.0	-3.2	-4.0	-6.1	-3.0	-3.1	-0.5	0.8	1.1	2.3	2.8	3.1	4.1	2.8	3.0	3.0	3.3	3.3
Denmark (d)	-0.8	-1.2	-2.8	-5.1	-6.5	-2.9	1.7	4.1	8.5	6.9	4.8	3.3	1.9	1.2	0.1	-1.3	-2.0	-1.1
Finland (e)	1.4	0.5	0.5	1.4	-0.2	-1.0	1.1	1.0	1.5	-0.7	2.1	3.4	5.6	-0.9	-5.0	-5.9	-1.9	-0.3
Greece (b,c)	0.0	-0.4	-0.5	-7.1	-5.1	-4.9	-5.6	-8.7	-6.8	-4.6	-6.0	-8.5	-6.4	-3.3	0.1	-1.3	0.0	1.3
Ireland (c)	-5.8	-6.9	-7.8	-7.7	-7.1	-5.1	-2.8	-3.5	-3.3	-1.1	2.6	5.1	4.7	4.3	3.1	2.6	2.6	2.8
Netherlands	-0.2	-1.3	-1.2	-1.8	-2.6	-1.4	-1.2	1.1	1.3	-0.2	0.7	-0.3	-0.8	2.0	1.3	0.7	0.5	0.8
Norway	-0.3	1.3	5.9	4.6	4.2	4.0	6.6	8.8	3.8	2.1	-1.0	-1.0	0.9	-1.8	-4.0	-3.8	-3.2	-2.1
Portugal	-4.2	-3.4	8.6	-5.3	-2.3	-4.0	1.2	1.9	3.3	1.5	2.3	4.1	2.8	2.3	4.3	-0.5	-0.6	-0.4
Spain (b)	-1.9	-1.6	-1.9	-3.3	-5.0	-3.8	-3.8	-4.2	-2.7	-0.3	-0.3	0.3	-0.8	-1.4	-0.6	-2.5	-1.7	-0.7
Sweden	-1.7	-4.1	-4.4	-4.9	-5.4	-3.1	-0.5	-0.8	1.0	6.0	4.5	5.7	4.3	-1.1	-7.1	-12.9	-10.8	-8.5
Total of above smaller countries	-1.6	-1.7	-1.1	-2.7	-2.9	-2.7	-1.3	-0.8	-0.1	1.0	1.3	1.4	1.1	0.0	-0.7	-2.3	-1.8	-0.9
Total of above European countries	-2.3	-1.9	-1.3	-2.4	-2.2	-1.7	-1.2	-0.9	-0.4	0.0	0.5	1.3	0.3	-0.3	-0.6	-1.9	-1.3	-0.3
Total of above OECD countries	-1.3	-0.8	-1.1	-1.1	-2.0	-2.1	-1.0	-0.7	-0.7	0.2	0.7	1.4	0.6	-0.1	-1.1	-1.7	-1.2	-0.5

a) Excludes deposit insurance outlays.

b) OECD estimates and projections.

c) Net property income paid rather than net interest payments is used as the latter is not available.

d) Net interest payments including dividends received are used.

e) In the latest version of Finnish national accounts, the semi-public pension scheme has been included in the general government sector. This revised institutional setup is incorporated in this table from 1990 onwards.

Table A5. General government savings (a)

As a percentage of nominal GDP

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
United States (b)	0.1	0.4	-1.3	-1.0	-3.4	-4.1	-2.9	-3.1	-3.4	-2.5	-2.0	-1.5	-2.5	-3.4	-4.5	-3.6	-2.7	-2.1
Japan	1.4	2.4	2.6	3.1	2.8	2.3	3.2	4.3	4.1	5.7	6.8	7.8	8.4	9.0	7.3	6.3	5.8	5.3
Germany	2.0	2.0	1.8	0.4	0.4	0.7	1.3	1.9	1.7	1.0	0.6	2.9	0.6	0.6	1.0	-0.4	-0.2	0.5
France	1.3	2.8	3.8	1.7	0.9	0.4	0.6	0.5	0.6	1.5	1.9	2.4	2.5	1.5	-0.5	-2.1	-2.2	-2.0
Italy	-6.4	-6.0	-4.5	-7.1	-7.1	-6.9	-7.1	-6.9	-6.8	-6.2	-6.1	-5.5	-6.2	-6.1	-7.5	-6.8	-5.5	-4.3
United Kingdom	-0.8	-0.2	-0.5	-0.5	-0.4	-0.7	-1.2	-0.5	-0.4	0.4	2.2	2.7	2.0	0.2	-3.3	-5.7	-4.9	-4.3
Canada	-1.3	-0.5	-1.2	0.0	-3.8	-4.8	-4.5	-4.8	-3.7	-2.3	-1.2	-1.5	-2.7	-4.9	-5.5	-5.9	-4.2	-2.6
Total of above countries	0.0	0.5	-0.1	-0.3	-1.6	-2.1	-1.3	-1.1	-1.3	-0.4	0.2	1.0	0.2	-0.4	-1.6	-1.8	-1.3	-0.8
Australia	-1.5	-1.2	-0.8	-0.1	0.1	-3.2	-1.9	-1.4	-1.4	1.1	1.9	2.2	1.7	-1.5	-2.9	-4.5	-4.3	-3.4
Austria	2.9	2.9	3.6	3.7	1.5	1.2	2.4	2.4	1.3	0.2	1.2	1.2	1.9	1.5	2.1	1.0	0.1	0.6
Belgium	-2.3	-3.0	-4.6	-8.3	-7.1	-7.9	-6.2	-6.0	-6.7	-5.3	-4.4	-4.7	-3.9	-4.7	-5.1	-5.6	-5.1	-4.1
Denmark	3.9	2.6	0.8	-2.7	-5.4	-4.0	-1.4	0.9	5.7	4.7	3.1	1.8	0.3	-0.8	-0.7	-1.9	-2.6	-1.8
Finland (c)	4.2	3.1	3.2	3.8	2.5	1.3	2.9	2.7	3.2	1.1	4.3	4.9	7.8	1.1	-4.0	-7.3	-4.5	-3.6
Greece	0.2	0.9	-0.1	-6.8	-4.7	-4.6	-5.4	-9.1	-7.4	-7.9	-10.1	-12.8	-14.8	-10.5	-7.2	-10.7	-11.6	-11.0
Ireland	-3.8	-4.9	-5.2	-6.5	-7.4	-6.3	-5.2	-6.6	-6.7	-5.5	-2.7	-0.1	-0.9	-1.1	-0.9	-1.4	-1.2	-0.8
Netherlands	1.1	0.4	0.9	-0.1	-1.9	-1.6	-1.3	-0.1	0.4	-0.9	-0.7	-1.7	-2.4	-0.4	-1.1	-1.6	-1.7	-1.1
Norway	4.1	4.8	8.9	7.5	6.9	6.6	9.7	12.2	8.0	7.3	5.3	4.0	4.6	2.3	-0.4	-1.2	-1.3	-1.0
Portugal	-2.3	-1.2	-2.4	-4.4	-0.8	1.5	-1.2	-3.5	-2.9	-2.9	-0.9	1.0	-1.8	0.6	2.7	0.0	1.3	-0.6
Spain	0.3	0.2	0.1	-0.6	-1.3	-0.8	-1.5	-2.4	-1.5	0.7	0.8	1.9	1.1	-0.3	-0.5	-3.3	-3.4	-2.3
Sweden	2.8	0.1	-1.6	-3.1	-5.1	-3.3	-1.5	-2.6	-0.4	3.4	4.1	6.1	4.7	-0.5	-5.0	-12.1	-12.0	-11.3
Total of above smaller countries	0.5	0.2	0.0	-1.2	-1.8	-1.9	-1.3	-1.5	-1.0	0.0	0.4	0.7	0.1	-1.0	-1.8	-4.0	-3.9	-3.2
Total of above European countries	-0.3	0.0	0.3	-1.3	-1.6	-1.5	-1.3	-1.2	-1.0	-0.6	-0.2	0.6	-0.2	-0.8	-2.0	-3.5	-3.1	-2.5
Total of above OECD countries	0.1	0.5	-0.1	-0.4	-1.7	-2.1	-1.3	-1.2	-1.2	-0.3	0.2	0.9	0.2	-0.4	-1.6	-2.1	-1.6	-1.1

a) General government savings is calculated as the difference between general government current receipts and general government current expenditure.

b) Excludes deposit insurance outlays

c) In the latest version of Finnish national accounts, the semi-public pension scheme has been included in the general government sector. This revised institutional setup is incorporated in this table from 1990 onwards.

Table A.6. General government total outlays (a)

As a percentage of nominal GDP

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
United States (b)	30.0	29.9	31.8	32.1	33.9	33.9	32.6	33.2	33.7	33.4	32.5	32.4	33.3	34.1	35.1	34.5	33.9	33.5
Japan	30.0	31.1	32.0	32.8	33.0	33.3	32.3	31.6	32.0	32.2	31.6	30.9	31.7	31.4	32.2	34.3	35.8	36.4
Germany	47.3	47.2	47.9	48.7	48.9	47.8	47.4	47.0	46.4	46.7	46.3	44.8	45.1	48.5	49.0	50.8	51.4	51.6
France	44.6	45.0	46.1	48.6	50.3	51.4	51.9	52.2	51.3	50.9	50.0	49.1	49.8	50.6	51.8	54.3	54.8	54.5
Italy	42.4	41.6	41.9	45.9	47.6	48.7	49.3	50.9	50.7	50.2	50.3	51.3	53.2	53.6	53.2	54.8	54.2	53.5
United Kingdom	41.4	40.9	43.0	44.2	44.6	44.7	45.2	44.0	42.5	40.7	38.0	37.6	39.9	40.8	43.2	44.9	44.8	43.9
Canada	38.7	37.3	38.8	39.8	44.8	45.3	44.9	45.3	44.6	43.5	42.5	43.1	45.8	49.1	49.9	49.7	48.6	47.3
Total of above countries	35.0	35.0	36.4	37.4	38.8	38.9	38.3	38.4	38.4	38.1	37.2	36.9	38.0	39.0	39.9	40.6	40.7	40.4
Australia	32.7	31.7	31.6	31.6	33.0	35.4	35.7	36.5	37.3	35.3	33.6	33.0	34.7	36.9	37.9	38.7	37.9	37.0
Austria	49.0	48.2	48.1	49.5	50.1	50.4	50.0	50.9	51.6	51.9	50.2	49.0	48.7	49.9	50.7	52.2	53.2	52.7
Belgium	49.0	50.5	51.9	56.4	56.3	55.9	54.9	54.5	54.1	52.6	50.5	49.3	49.1	49.9	50.7	51.9	51.6	50.7
Denmark	50.7	53.2	56.2	59.8	61.2	61.6	60.4	59.3	55.7	57.3	59.4	59.6	58.3	58.7	59.8	62.0	63.1	62.5
Finland (c)	36.7	35.6	35.5	36.3	37.9	39.1	38.7	40.4	40.7	41.2	39.0	37.5	45.5	54.1	59.5	62.5	62.9	61.4
Greece	31.6	32.9	33.1	39.1	39.7	41.7	44.4	48.3	47.6	47.6	47.5	49.3	53.3	50.8	50.7	53.2	55.6	55.8
Ireland	42.8	45.1	48.9	50.4	53.2	53.2	51.4	52.5	52.3	50.4	47.1	40.5	41.0	42.1	43.7	44.6	44.9	45.2
Netherlands	51.3	53.0	54.9	56.8	58.7	59.3	57.8	56.1	56.1	57.7	56.3	53.8	54.1	54.5	55.2	55.8	55.8	55.3
Norway	50.9	49.5	47.5	47.1	47.5	47.6	45.5	44.8	48.9	50.4	52.4	53.5	53.8	55.4	57.5	57.4	56.6	55.0
Portugal	36.4	36.2	25.9	43.9	43.0	47.9	44.4	43.4	43.9	43.5	43.5	41.7	42.9	49.7	51.6	50.7	53.2	50.0
Spain	29.0	30.1	32.2	34.9	36.6	37.7	38.1	41.1	40.7	39.6	39.5	40.9	41.8	43.3	44.5	46.9	47.4	46.8
Sweden	58.6	60.0	60.1	62.6	64.8	64.5	62.0	63.4	61.6	57.8	58.1	58.3	59.1	61.5	67.3	72.0	70.9	69.0
Total of above smaller countries	40.7	41.4	41.9	44.9	46.2	47.2	46.6	47.6	47.4	46.7	46.0	45.6	46.7	48.4	50.0	51.7	51.9	51.0
Total of above European countries	43.6	43.7	44.6	47.1	48.1	48.5	48.5	48.8	48.2	47.7	46.8	46.4	47.5	49.1	50.2	52.0	52.3	51.8
Total of above OECD countries	35.8	35.9	37.1	38.4	39.8	40.0	39.3	39.6	39.6	39.3	38.4	38.1	39.1	40.2	41.2	42.1	42.1	41.8

a) Current outlays plus net capital outlays.

b) Excludes deposit insurance outlays

c) In the latest version of Finnish national accounts, the semi-public pension scheme has been included in the general government sector. This revised institutional setup is incorporated in this table from 1990 onwards.

Table A7. General government current receipts (a)

As a percentage of nominal GDP

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
United States	30.2	30.3	30.5	31.1	30.5	29.9	29.7	30.1	30.2	31.0	30.5	30.9	30.8	30.7	30.6	30.8	31.2	31.4
Japan	24.5	26.3	27.6	29.0	29.4	29.6	30.2	30.8	31.0	32.6	33.1	33.4	34.6	34.4	32.9	33.2	33.8	34.0
Germany	44.8	44.6	45.0	45.0	45.7	45.3	45.5	45.8	45.1	44.8	44.1	44.9	43.1	45.3	46.4	46.8	47.9	48.9
France	42.5	44.1	46.1	46.7	47.6	48.2	49.2	49.3	48.6	49.0	48.3	47.8	48.3	48.5	47.9	48.3	48.8	48.6
Italy	31.9	31.5	33.3	34.4	36.2	38.0	37.8	38.3	39.1	39.3	39.6	41.4	42.2	43.3	43.7	45.1	45.5	46.1
United Kingdom	37.0	37.7	39.6	41.6	42.1	41.4	41.2	41.2	40.1	39.4	39.0	38.5	38.6	38.1	37.0	36.7	37.4	37.2
Canada	35.5	35.3	36.1	38.3	38.8	38.4	38.5	38.5	39.2	39.7	40.0	40.3	41.7	42.8	43.3	42.7	43.2	43.6
Total of above countries	32.4	32.9	33.7	34.6	34.8	34.6	34.7	35.1	35.1	35.7	35.4	35.8	36.0	36.3	36.1	36.3	36.8	37.1
Australia	29.9	29.4	30.1	31.1	32.6	31.4	32.7	33.8	34.5	35.3	34.9	34.4	35.4	34.3	33.9	32.9	32.6	32.8
Austria	46.2	45.8	46.4	47.8	46.7	46.4	47.5	48.5	48.0	47.6	47.1	46.2	46.6	47.5	48.7	49.3	49.4	49.4
Belgium	42.4	43.1	42.7	43.3	45.0	44.4	45.5	45.8	44.9	45.3	44.1	42.8	43.4	43.4	43.9	44.9	45.4	45.4
Denmark	50.4	51.5	52.9	52.9	52.0	54.4	56.3	57.3	59.1	59.7	60.0	59.1	56.8	56.5	57.3	57.7	58.0	58.2
Finland (b)	38.0	36.1	35.8	37.5	37.3	37.4	39.0	40.5	41.5	39.7	40.3	40.4	50.8	52.6	53.4	53.4	56.7	56.2
Greece	29.9	30.4	30.2	28.8	32.0	33.2	34.3	34.3	35.2	36.0	33.8	32.8	35.2	36.4	39.6	38.4	39.9	40.8
Ireland	34.2	34.8	37.5	38.1	40.6	42.5	42.7	42.3	42.3	42.5	43.3	39.5	39.4	40.7	41.1	41.4	41.7	42.3
Netherlands	48.8	49.4	51.0	51.7	52.1	53.4	51.9	52.3	52.4	52.6	52.1	49.1	49.0	51.9	51.7	51.7	51.5	51.5
Norway	50.8	50.8	53.2	51.9	52.0	51.9	53.1	55.1	54.7	55.1	55.0	54.9	56.3	55.2	54.8	54.2	53.5	52.3
Portugal	29.5	30.0	31.4	33.3	35.4	37.8	37.3	35.9	37.6	36.2	38.1	38.7	37.6	43.6	47.0	42.5	46.3	43.9
Spain	27.0	28.3	29.9	31.2	31.2	33.1	32.8	34.2	34.7	36.4	36.3	38.1	37.9	38.3	40.0	39.7	40.4	40.9
Sweden	58.2	57.1	56.1	57.4	57.8	59.5	59.0	59.5	60.4	62.1	61.6	63.7	63.3	60.3	60.2	57.3	57.3	56.9
Total of above smaller countries	38.1	38.4	39.3	40.2	40.9	41.7	42.0	42.8	43.2	43.9	43.6	43.4	44.0	44.5	45.3	44.8	45.3	45.3
Total of above European countries	39.5	39.9	41.2	42.1	42.9	43.5	43.6	44.0	43.8	43.9	43.6	43.9	43.8	44.7	45.0	45.2	45.9	46.2
Total of above OECD countries	33.2	33.6	34.5	35.4	35.6	35.5	35.7	36.1	36.1	36.8	36.5	36.8	37.1	37.4	37.3	37.4	37.9	38.2

a) Current receipts exclude capital receipts.

b) In the latest version of Finnish national accounts, the semi-public pension scheme has been included in the general government sector. This revised institutional setup is incorporated in this table from 1990 onwards.

Table A8. Gross public debt (a)
As a percentage of nominal GDP

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
United States	39.2	37.2	37.7	37.0	41.0	43.6	44.9	48.1	51.0	52.0	52.7	53.2	55.4	58.9	61.7	63.4 ^b	64.1	64.1
Japan	41.9	47.0	52.0	56.8	60.9	66.6	67.9	68.7	72.3	74.9	72.8	70.6	69.8	68.2	67.3 ^b	68.3	70.3	72.4
Germany	30.1	30.8	32.8	36.5	39.6	41.1	41.7	42.5	42.6	43.8	44.4	43.2	43.5	41.8	42.8 ^b	46.2	50.8	60.0
France (c)	38.8	38.5	37.3	36.4	40.1	41.4	43.8	45.5	45.7	47.2	46.8	47.5	46.6	48.6	51.6 ^b	57.1	62.1	66.3
Italy	62.4	61.5	59.0	61.1	66.4	72.0	77.4	84.3	88.2	92.6	94.8	97.9	100.5	104.0	108.0 ^b	114.0	116.5	118.0
United Kingdom	58.7	54.9	54.1	54.3	53.0	52.9	54.4	52.7	51.1	48.6	42.2	36.8	34.7	35.4	40.5 ^b	47.3	52.3	56.4
Canada	46.6	43.8	44.6	45.2	50.3	56.2	59.1	65.0	68.9	70.1	69.3	69.5	71.6	77.5 ^b	83.3	88.3	90.6	90.7
Total of above countries	42.2	41.9	42.9	43.9	47.6	50.8	52.5	54.9	57.3	58.6	58.3	57.9	58.8	60.5	62.8	65.7	67.9	70.0
Australia (d)	..	..	..	..	..	..	..	..	..	31.1	27.3	27.0	25.5	26.2 ^b	29.6	34.2	38.3	41.3
Austria (c)	33.9	36.0	37.2	39.3	41.6	46.0	47.9	49.6	53.8	57.3	57.6	56.9	56.4	57.0	55.8 ^b	57.0	58.6	59.2
Belgium	68.8	73.5	79.9	93.2	102.3	113.3	118.2	122.3	126.7	131.5	132.9	130.2	130.7	133.9	136.0 ^b	141.6	144.6	144.8
Denmark (c)	21.9	27.0	33.5	43.7	53.0	61.6	65.9	64.1	58.3	55.9	58.0	58.5	59.5	60.7 ^b	62.4	66.2	69.7	72.1
Finland (c,e)	13.5	14.0	13.9	14.6	17.1	18.7	19.0	19.0	18.8	20.1	18.8	16.6	16.6	25.4 ^b	44.0	60.0	66.1	70.9
Greece (c)	29.4	27.6	27.7	32.8	36.1	41.2	49.5	57.9	58.6	64.5	71.1	76.0	89.0	96.3	94.6 ^b	98.4	103.7	108.5
Ireland	65.7	71.0	72.5	77.2	83.0	97.0	101.3	104.3	116.0	117.1	115.2	105.4	98.7	96.7 ^b	93.8	92.1	89.6	87.0
Netherlands	39.9	41.7	44.8	49.1	54.2	60.4	64.5	67.9	69.6	73.5	76.2	76.3	76.5	76.6	78.0 ^b	80.6	81.9	82.8
Norway (c)	60.0	62.9	52.2	47.4	42.2	38.8	38.7	40.7	51.1	42.7	42.5	42.7	39.2	40.2 ^b	43.4	47.2	51.0	54.2
Portugal	37.6	25.7	37.5	47.3	50.7	56.5	63.0	66.5	64.3	72.4	75.2	71.7	66.6	67.5	62.6	67.6 ^b	70.2	71.4
Spain (c)	14.4	16.5	18.3	24.0	30.4	36.4	43.5	48.8	49.9	49.4	45.7	46.9	46.8	49.3	51.4 ^b	57.4	62.6	66.0
Sweden	34.5	39.6	44.3	52.1	61.7	65.5	67.0	67.6	67.1	59.1	53.5	48.4	44.2	45.7 ^b	52.9	67.6	80.5	91.2
Total of above smaller countries	32.8	34.2	36.3	41.2	46.3	51.5	55.6	58.7	59.9	60.6	59.6	59.0	58.5	60.4	62.9	68.4	72.7	75.6
Total of above European countries	42.3	42.2	42.7	45.4	48.9	52.1	55.1	57.4	58.4	59.5	58.8	58.1	58.1	59.1	61.9	67.3	71.6	76.1
Total of above OECD countries	41.0	40.9	42.0	43.6	47.4	50.8	52.9	55.4	57.6	58.9	58.4	58.0	58.7	60.5	68.5	66.1	68.5	70.7

a) Refers to general government debt.

b) OECD estimates starting this year.

c) Does not exclude public sector mutual indebtedness.

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

e) In the latest version of Finnish national accounts, the semi-public pension scheme has been included in the general government sector. This revised institutional setup is incorporated in this table from 1990 onwards.

Table A9. Net public debt (a)
As a percentage of nominal GDP

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
United States	21.3	19.1	18.8	18.8	21.6	24.1	25.2	27.1	29.4	31.0	30.9	30.4	32.8	34.0	37.4	39.1 ^b	39.8	39.8
Japan (c)	11.3	14.9	17.3	20.6	23.1	26.0	27.1	26.7	26.4	21.5	17.8	14.9	9.6	5.9	5.0 ^b	6.0	8.0	10.1
Germany (c)	9.4	11.6	12.8	16.1	18.8	20.5	21.3	21.8	22.1	23.2	24.2	22.7	22.8	23.1	24.1 ^b	27.5	32.2	41.3
France (c)	13.1	13.8	14.3	14.2	17.8	20.0	21.1	22.9	25.5	24.5	24.7	24.8	25.0	27.1	30.0 ^b	35.6	40.6	44.7
Italy	57.4	56.0	53.9	57.2	63.7	69.2	74.9	81.9	86.0	90.5	92.9	96.1	99.0	102.7	106.7 ^b	112.6	115.1	116.7
United Kingdom	52.3	47.8	47.0	46.3	45.5	45.5	47.1	45.8	44.7	42.0	35.3	30.1	28.5	30.0	35.1 ^b	41.9	47.0	51.0
Canada	11.6	12.1	12.3	10.6	16.6	22.9	26.7	33.0	37.0	38.3	36.9	40.2	43.3	49.3 ^b	55.0	60.1	62.3	62.5
Total of above countries	22.2	21.7	22.0	23.0	26.0	28.7	30.2	31.9	33.5	33.6	32.6	31.7	32.1	32.7	35.3	38.2	40.4	42.5
Australia (d)	..	..	..	..	..	..	..	..	..	19.1	16.6	12.2	11.6	12.3 ^b	15.7	20.3	24.4	27.4
Belgium	56.8	62.0	69.3	83.5	92.6	103.7	108.4	111.9	116.4	120.9	122.2	119.7	119.4	121.3	123.4 ^b	129.0	131.9	132.2
Denmark	-2.2	1.8	7.3	16.6	26.4	33.3	36.8	34.4	28.5	25.6	26.8	26.1	26.5	27.7 ^b	29.4	33.3	36.7	39.1
Finland (c,e)	-8.3	-6.8	-6.1	-4.7	-1.9	0.4	0.7	0.9	0.0	2.4	0.6	-1.7	-8.1	-7.1 ^b	-4.7	3.1	9.2	14.0
Netherlands (c)	19.6	21.3	24.4	26.7	30.5	35.7	38.9	41.5	44.4	50.0	53.0	54.9	55.9	55.9	57.2 ^b	59.8	61.1	62.0
Norway (c)	6.7	9.8	0.4	-2.2	-4.7	-8.4	-12.5	-16.0	-21.1	-21.4	-21.3	-20.3	-21.4	-20.4 ^b	-17.2	-13.4	-9.6	-6.4
Spain	3.5	5.8	6.1	9.2	13.0	17.9	22.5	27.6	30.2	31.0	31.4	30.8	31.6	33.9	36.0 ^b	42.0	47.2	50.6
Sweden	-25.3	-19.8	-11.6	-3.3	6.4	12.7	15.2	15.6	14.2	7.8	1.4	-4.8	-5.6	-4.1 ^b	3.0	17.7	30.7	41.4
Total of above smaller countries (f)	14.8	17.3	19.1	22.9	26.8	31.9	34.9	37.5	39.2	40.3	40.3	38.8	39.0	40.4	42.5	47.8	52.1	55.1
Total of above European countries (f)	26.3	26.7	27.2	29.7	33.2	36.4	39.0	41.2	42.7	43.5	43.2	42.4	42.8	44.2	46.9	52.2	56.6	61.1
Total of above OECD countries (f)	21.3	21.2	21.6	23.0	26.1	29.1	30.8	32.6	34.2	34.4	33.6	32.6	33.0	33.7	36.2	39.4	41.8	44.1

a) Refers to general government debt.

b) OECD estimates starting this year.

c) Financial assets exclude shares and holdings on public corporations.

d) Debt data refer to fiscal years ending 30 June.

e) In the latest version of Finnish national accounts, the semi-public pension scheme has been included in the general government sector. This revised institutional setup is incorporated in this table from 1990 onwards.

f) Includes gross financial liabilities for Austria, Greece and Ireland.

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