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Eliminating the U.S. Federal  
Budget Deficit by 1993: The  
Interaction of Monetary and  
Fiscal Policy

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THE INTERACTION OF MONETARY AND FISCAL POLICY

by

R. Herd and B. Ballis

Economic Prospects Division

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This paper uses the OECD's economic model, INTERLINK, to examine the consequences of eliminating the U.S. federal government deficit. Such action could lead to either lower real interest rates, lower inflation rates or a smaller current account deficit, depending on the stance of monetary policy. The elimination of the U.S. Federal deficit over the medium term could significantly lower the U.S. inflation rate and improve the current account deficit, if nominal interest rates were held constant in the face of falling inflation rates. In the absence of a reduction in the fiscal deficit, a significant increase in interest rates would be necessary to achieve the same reduction in the inflation rate. If, however, policy tightening is not necessary to contain inflation, a reduction in the fiscal deficit might be accompanied by a fall in nominal and real interest rates. In this case, a reduction in the fiscal deficit would not necessarily result in an improvement in the current account deficit -- as private sector expenditure would rise relative to saving -- but real interest rates would be lower. This fall in real interest rates could be generalised if other countries were to match the fall in U.S. interest rates, so lessening the probability of a fall in the dollar.

L'étude présente examine les conséquences d'une résorption du déficit du budget fédéral américain en utilisant le modèle économétrique de l'OCDE, INTERLINK. Suivant les hypothèses retenues pour la politique monétaire, une telle action sur le front fiscal pourrait conduire soit à une réduction des taux d'intérêts réels, soit à une réduction du taux d'inflation ou à une réduction du déficit de la balance des paiements courants. L'élimination du déficit du budget fédéral américain dans le moyen terme pourrait provoquer une décélération sensible du taux d'inflation aux Etats-Unis et améliorer le solde de la balance des paiements courants, si les taux d'intérêts nominaux restaient inchangés face au ralentissement de l'inflation. En l'absence d'une réduction de déficit budgétaire, une hausse significative des taux d'intérêt serait nécessaire pour permettre une même réduction de l'inflation. Néanmoins, si la situation sur le front de l'inflation ne nécessitait pas un tel resserrement de la politique monétaire, la réduction du déficit budgétaire pourrait s'accompagner d'une baisse des taux d'intérêts réels et nominaux. Dans ce cas, la réduction du déficit budgétaire ne s'accompagnerait pas nécessairement d'une amélioration du solde des paiements courants - dans la mesure où les dépenses du secteur privé croîtraient plus vite que l'épargne - mais les taux d'intérêt pourraient diminuer en termes réels. La baisse des taux d'intérêts réels pourrait se généraliser, si les autres pays de l'OCDE alignaient l'évolution de leurs taux sur celles des Etats-Unis, limitant ainsi la probabilité d'une baisse du dollar.

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The Interaction of Monetary and Fiscal Policy

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## I. Introduction

Current estimates by the Congressional Budget Office suggest that, unless further policy measures are enacted, the United States government is likely to remain a significant borrower on its domestic capital markets over the medium term. Such a development could complicate the achievement of sustained non-inflationary growth and the reduction of the current account deficit. The broad objective of achieving a balanced Federal budget by 1993 has, though, already been enacted in the Balanced Budget Act. This note draws on several medium-term scenarios to assess the implication for activity and inflation of movement towards a balanced budget. It focuses, particularly on the interaction between fiscal and monetary policy and examines the extent to which different monetary policy stances will affect the outcome. Further detail on the scenarios is given in the Annex.

## II. The U.S. Budget Deficit over the medium term

The Federal budget deficit of the United States, which was brought down from some 6 per cent of GNP in 1983 to about 3 per cent in 1988, could remain in substantial deficit over the medium term. The Congressional Budget Office estimates that by 1993, the deficit will still be almost two per cent of GNP. This estimate embodies a marked degree of fiscal rigour. For example, it assumes that all forms of expenditure where entitlements are not fixed by law remain stable in real terms. This markedly lowers some forms of expenditure relative to GNP; the defence budget, for instance, is projected to return to its 1980 share of GNP by 1993. All of the real growth in Federal expenditure in the CBO estimate comes from areas where benefits are mandatory for qualified applicants (Table 1). Despite a projected growth of overall expenditure well below the projected growth of GNP, the deficit is projected to be \$120 billion in fiscal 1993. In its medium-term work, OECD estimates of the U.S. deficit are derived from the CBO projections. In the OECD's medium-term baseline U.S. tax revenues are somewhat higher as a result of end-period GNP being slightly greater but this is partially offset by the impact on expenditure of higher projections of interest rates. In all, the OECD baseline embodies a U.S. Federal budget deficit of \$110 billion in 1993. Both the OECD and the CBO estimates are well above the targets of the Balanced Budget Act which calls for the elimination of the deficit by 1993.

## III. Policies to reduce the Budget deficit

Budgetary cuts of the scale necessary to achieve the Balanced Budget Act targets would have considerable macro-economic effects on activity, inflation and external balances. As well, the precise impact of any fiscal policy designed to achieve budgetary balance would depend on the monetary policies adopted -- both in the United States and abroad -- when the budget cuts are introduced. The mix of policies that are actually implemented will depend to some extent on the economic situation and, in particular, the degree of inflationary tensions and the concern attaching to the size of the current balance.



Table 1  
**Projections of  
 United States Federal Government Expenditure**

1988 constant prices  
 \$ billion

	1988	1993	% change
<b>Discretionary expenditure</b>			
Defence	293	284	-3
Other	178	182	2
<b>Mandatory expenditure</b>			
Social security and pensions	272	304	12
Health care	121	175	45
Other income support	103	95	-8
<b>Total non-interest payments</b>	<b>967</b>	<b>1040</b>	<b>8</b>
<b>Interest payments</b>	<b>151</b>	<b>162</b>	<b>7</b>
<b>Total</b>	<b>1118</b>	<b>1202</b>	<b>8</b>

**Source:** Congress of the United States : Congressional Budget Office

The Economic and Budget Outlook: 1989 - 1993, February 1988  
 The Economic and Budget Outlook: An Update, August 1988

OECD estimates.

## A. Fiscal restriction

If, for example, the primary risks facing the U.S. economy were an acceleration in the rate of inflation and unsustainable current account deficit, then a package which reduced government expenditure and kept nominal interest rates constant could considerably lower these risks. Such a policy combination, explored in one of the scenarios presented in Table 2, would tend to sharply reduce demand, output and incomes and to raise the level of real interest rates (Table 2, first column). Private saving would be markedly reduced as income fell, although the increase in real interest rates would tend to offset this reduction. Private investment would be depressed both by higher real interest rates and lower output, as well as reduced profitability. The net result would be that the balance between private-sector investment and saving would change only slightly. The main counterpart to the reduction in the Federal deficit would, in these circumstances, be a reduction in the current account deficit (Table 3, first column). By 1993 this deficit would improve by \$65 to \$70 billion, more than half of the change in the Federal deficit. The resulting current account deficit would be about \$50 to \$100 billion, a magnitude that international financial markets could absorb without increasing the dollar share of international portfolios. Inflation would be reduced by an average of one per cent over the whole period. The unemployment rate would rise by about 1 point by the end of the period reflecting output growth that would remain about three-quarters of a point below the rate of growth of potential -- and three points lower by 1993. The trading partners of the United States would also see a significant fall in their output level -- almost two points by 1993.

In this scenario, U.S. tax revenues are lower than in the baseline because U.S. output is lower. As a result cuts in government expenditure would have to be larger than the initial gap between the deficit and the targets of the Balanced Budget Act. The path for the required cuts in expenditure is shown in the Annex. The end-period cuts (\$160 billion to eliminate a deficit of \$110 billion in the baseline) would represent almost 12 per cent of Federal government expenditure excluding interest payments, the equivalent of entire health care budget or half the defence budget (Table 1). The scale of the expenditure cuts is so large that taxation increases might have to be considered to replace some expenditure cuts.

The significant reduction of inflation achieved in this scenario is brought about entirely by the measures taken to balance the budget by 1993; interest rates in this scenario do not change. If, on the other hand, interest rates were used to control inflation, an average reduction of one per cent in the U.S. rate of inflation over the period 1990 to 1993 could also be achieved by an increase in interest rates of about 250 basis points. A slightly smaller fall in interest rates might suffice if the dollar were to appreciate following the tightening of monetary policy. The estimates presented here (Table 9), on the impact of monetary policy on inflation, are based on the assumption that the dollar does not appreciate as interest rates rise. Such a scenario might occur, for instance, if monetary policy were tightened in the face of a downward shift in market expectations of the dollar exchange rate. While inflation would be reduced by the tightening of monetary policy, the budgetary problem would become much worse. Tax receipts would be reduced without any offsetting reduction in government expenditures. Indeed, higher interest payments would raise government debt service payments by over

Table 2

**Reducing the United States Federal Budget Deficit  
The impact of different policy combinations**

		Fiscal Tightening		Fiscal tightening in U.S. & Monetary Easing	
		In U.S. only	In all countries	Outside U.S.	In U.S. only and dollar falls
Changes from baseline					
average 1990-1993					
* 1993					
<u>United States</u>					
Federal deficit	* \$ bn	-110.0	-110.0	-110.0	-110.0
Expenditure cuts	* \$ bn	160.0	60.0	150.0	10.0
Real expenditure cuts	* \$ bn (1)	109.0	51.0	101.0	27.0
Treasury bill rate	%	0.0	-1.5	0.0	-1.5
Money stock	% p.a.	-1.0	0.7	-0.9	1.6
Output growth	% p.a.	-0.7	0.2	-0.6	0.4
Inflation	% p.a.	-1.0	0.0	-1.0	0.9
Unemployment rate	* %	1.0	-0.1	0.7	-0.5
Current account	* \$ bn	68.0	-10.0	71.0	-1.0
<u>Other OECD countries</u>					
Output growth	% p.a.	-0.4	0.2	-0.1	0.0
Inflation	% p.a.	-0.2	0.1	0.0	-0.2
Interest rates	%	0.0	-1.5	-1.7	0.0

(1) 1988 prices

Description of the scenarios

The baseline for these scenarios is a medium-term projection of all OECD economies which, for the United States, uses the current services projection of the Congressional Budget Office as a path for Federal expenditure, modified for a higher level on interest rates.

In each of the cases considered, U.S. Federal expenditure is lowered by an amount sufficient to eliminate the 1993 Federal budget deficit of \$110 billion. The cases differ in the responses of the monetary authorities to a change in fiscal policy.

Table 3

Changes in Saving and Investment in the United States  
changes from baseline in 1993  
per cent of GDP

	Fiscal	Fiscal tightening in U.S. & Monetary Easing		
	Tightening	In U.S. only	In all countries	Outside U.S.
Household saving	0.2	-1.0	0.2	-1.4
Business saving	-0.8	-0.1	-0.7	0.0
Private saving	-0.6	-1.1	-0.5	-1.3
State & local saving	-0.8	0.1	-0.7	0.5
Federal saving	1.6	1.7	1.5	1.8
Domestic saving	0.2	0.7	0.3	0.9
Capital inflow	-1.0	0.0	-1.0	0.0
Gross investment	-0.8	0.7	-0.7	0.9
Business	-0.3	0.2	-0.2	0.3
Housing	-0.3	0.2	-0.2	0.4
Stocks & residual error	-0.3	0.3	-0.3	0.3

\$70 billion. By 1993, the Federal deficit would have doubled. The increase in U.S. interest rates would mean that payments in U.S. foreign debt would also increase markedly, so reducing the improvement in current account compared with the scenario where the federal deficit is reduced by fiscal action.

#### B. Changing the mix of fiscal and monetary policy

A trade off between budgetary cuts and some easing of monetary policy could allow for a change in the mix of monetary and fiscal policy. This could leave U.S. activity and inflation little changed while achieving the targets of the Balanced Budget Act. This mix of policies might be feasible if inflation were not seen as a major risk. The authors have simulated the impact of bringing the Federal budget into balance by 1993 while increasing slightly the growth of the monetary aggregates so as to lower short term interest rates by 150 basis points. Such a change in policy would leave inflation unchanged and might raise U.S. output slightly if other countries chose also to lower interest rates by the same amount (Table 2, second column). Real interest rates would be lowered by such a change in policy and so this would tend to raise the level of business and housing investment. Lower real interest rates would also raise personal-sector wealth and so reduce the level of personal saving. The gap between private sector saving and investment would increase by almost as much as the decline in the Federal deficit and so there would be little change in the current account deficit (Table 3, second column). The economy would be moved, though, onto a growth path with a higher growth rate of the capital stock.

The change in the mix of fiscal and monetary policies would make the achievement of a balanced budget much easier. Expenditure cuts would not be required to compensate for losses in tax revenues. Moreover, the reduction in interest rates would result in a significant fall in interest payments on the Federal debt. The required cut in non-interest payments would be reduced to \$60 billion by 1993.

#### C. Foreign responses to changes in U.S. policy

A third scenario envisages a possibility in which there is little scope to change monetary policy in the United States when budget cuts are implemented but in which the effects of a U.S. fiscal tightening outside the United States are offset by other countries (Table 2, third column). This could occur if, for example, countries outside the United States found the internal balance in their own economies satisfactory prior to the U.S. budget cuts and inflation were under control, they might have some scope for a reduction in their interest rates in order to stimulate their domestic activity to offset the drop in their exports to the United States. Demand in the United States would be raised somewhat through a higher level of exports to foreign markets. This would tend to result in a better U.S. trade balance relative to the first scenario discussed in this note (Table 2, first column) where the economies outside the U.S. are depressed by the expenditure cuts. The better U.S. trade balance is offset to some extent by a fall in investment income earnings from abroad as foreign interest rates fall. In such a scenario, the inflation rate would still decline in the United States (Table 2, third column), but the required budgetary cuts would remain large at \$150 billion by the end of the period. Countries outside the United States

would have been able to avoid the depressive impact of the fall in output caused by the budget cuts. Such a policy might involve some risk that the dollar would appreciate given the improvements in the U.S. current account and the higher interest rate differential. Nevertheless, this outcome suggests again that a reduction in the U.S. budget deficit offers the possibility of lower long term interest rates.

A policy of fiscal tightening accompanied by monetary easing in the United States would carry some risks. This combination of policies would only be feasible if the underlying development of the economy were sound, especially on the external side. If markets became unwilling to finance the continuing large deficits then there might be downward pressure on the dollar. This pressure might be amplified if authorities outside the United States had not lowered their interest rates following the fall in U.S. rates. If, for example, as a result of these two pressures, the dollar were to fall by 5 per cent the inflation rate in the United States might increase significantly (Table 2, column 4). At the same time, there might be a slight deterioration in the U.S. current account.

#### IV. Conclusions

The medium term budgetary outlook for the United States has improved somewhat in the past year. Implementation of the packages designed to meet the targets of the Balanced Budget Act for 1988 and 1989, together with higher growth have reduced the near term deficit and to a somewhat lesser extent the medium term deficit. The debt to GNP ratio is now expected to have peaked in 1987 and to decline thereafter. Despite this progress, considerable effort will be required to achieve a balanced budget by 1993. Nevertheless, such an effort could bring significant benefits. If inflation is seen to be a significant risk, bringing the budget back to balance could avoid a significant tightening of monetary policy and substantially reduce the current account deficit. On the other hand, if the inflation risk is seen as small, a reduction in the deficit could generate a significant worldwide fall in real interest rates. If, though, other countries judge that a fall in interest rates would not be appropriate, then the dollar could come under pressure. This would appreciably worsen the U.S. inflation outlook and put in jeopardy the policy of lowering the budget deficit through a combination of expenditure cuts and lower interest rates.

The scenarios illustrate that a policy of reducing the U.S. Federal deficit would have significant beneficial effects. Some combination of lower real interest rates, lower inflation and a smaller current account deficit would be likely. The precise way in which benefits occurred would depend on the reactions of governments and private agents to the effects of the reduction in the deficit.

## Annex

## A. Simulation assumptions

This annex provides the key assumptions and technical information used in the scenarios described in this note. The scenarios take the form of medium term simulations around a base case which embodies the U.S. Federal budget on a current services basis, making for a deficit of \$110 billion in 1993 (Table 4). All simulations start in 1990 and cover the period to 1993. For each scenario, detailed results are provided for the United States, Japan, OECD Europe and Total OECD (see Tables 5 to 8).

## Fiscal tightening in the United States only

This scenario (summarised in Table 5) examines the macroeconomic implications of Government expenditure cuts in the United States aiming to bring the federal deficit down towards the level implied by the amended Gramm-Rudman-Hollings act (Table 4). This would mean substantially higher cuts of the government expenditure on an ex ante basis to the extent that the budgetary restraint would have significant effects on activity and hence tax revenues and transfers. As a consequence, government expenditure is reduced over the 1990-1993 period cumulatively by about \$160 billion. Government non-wage spending in all other countries outside United States is assumed unchanged in real terms. In these countries, the deceleration of inflation induced by the weakening of the economic activity leads to a reduction in nominal expenditure sufficient to leave real government consumption unchanged from baseline. This, of course, does not preclude an increase in other transfers to households related, for example, to higher unemployment. Monetary policy, both in the United States and abroad, is assumed accommodating in the sense that the money supply growth evolves with demand so that short-term interest rates remain unchanged from baseline and, with inflation falling, real interest rates therefore increase. Exchange rates of all currencies vis-à-vis the U.S. dollar are assumed unchanged from baseline.

Table 4

Estimates of the U.S federal  
budget deficit 1989-1993

(calendar years; billion U.S. dollars)

	1989	1990	1991	1992	1993
Projected federal deficit	147	140	130	125	110
Amended GRH target	145	108	78	42	0
<u>ex post</u> warranted Budget deficit cut		32	52	83	110

Source: OECD.

### **Fiscal tightening in the United States and monetary easing in all countries**

This scenario, presented in Table 6, assumes a U.S. budget rebalancing accompanied by a uniform reduction of interest rates worldwide by 150 basis points sustained throughout the period. As in the previous case, government expenditure in countries outside United States is assumed unchanged in real terms. The monetary relaxation accompanying the U.S. fiscal tightening is of key importance for the economic activity especially in the United States. The reduction in interest rates provides support to the economic activity, not only in a direct way through its impact on investment and consumption, but, also, and perhaps more importantly, in an indirect way, by alleviating the expenditure cuts which are necessary to balance the U.S. budget. The ex post expenditure cuts in the United States are less than half those in Scenario I as a result first, of higher tax receipts and lower transfer payments related to higher activity and, second, as a result of lower interest payments on the Federal debt. Exchange rates are assumed constant.

### **Fiscal tightening in the United States and monetary easing only outside the United States**

This case, summarised in Table 7, assumes as before, a fiscal restriction in the United States aiming to rebalance the U.S. budget, but, in this case, monetary policy stance is relaxed only outside the United States. Short-term interest rates in all countries except the United States are reduced by 150 basis points in the first two years and a further 50 basis points in 1992 and 1993 in order to offset the negative impact of the U.S. fiscal tightening on their economic activity. By the end of the period under consideration, both real GNP and prices the outside the United States remain on average broadly unchanged from baseline levels. In this case, exchange rates were held constant though there would be pressures for an appreciation of the dollar.

### **Fiscal tightening in the United States, monetary easing in the United States only: dollar falls**

The final case (Table 8) explores, as in the second case, the possibility of a rebalancing of the U.S. budget accompanied by a monetary relaxation. However, this time the U.S. dollar is assumed to depreciate, in the first half of 1990, by 5 per cent vis-à-vis all other OECD currencies. Short-term interest rates are reduced in the United States by 150 basis points and government expenditure outside United States is assumed unchanged in real terms.

## **B. Detailed results**

The following Tables (5 to 9) give detailed country by country results for the simulations reported in the main part of the paper.



Table 5

## Fiscal tightening in the United States only

(per cent change from baseline)

	1990	1991	1992	1993
<b>United States</b>				
Government expenditure \$billion	-36	-65	-115	-160
Real government expenditure	-3.3	-5.2	-8.4	-10.3
Real total domestic demand	-1.1	-2.1	-3.3	-4.3
Real GNP	-0.8	-1.6	-2.4	-3.0
GNP deflator	-0.2	-0.9	-2.2	-4.2
Employment	-0.3	-0.7	-1.0	-1.2
Current balance, \$billion	15	27	47	68
Treasury bill rate	0.0	0.0	0.0	0.0
<b>Japan</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	0.0	0.0	0.0	0.0
Real total domestic demand	-0.1	-0.4	-0.8	-1.5
Real GNP	-0.3	-0.8	-1.5	-2.5
GNP deflator	-	-	-0.1	-0.5
Employment	-	-0.1	-0.3	-0.5
Current balance, \$billion	-4	-10	-18	-28
<b>OECD Europe</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	0.0	0.0	0.0	0.0
Real total domestic demand	-0.1	-0.2	-0.4	-0.6
Real GNP	-0.2	-0.4	-0.8	-1.2
GNP deflator	-	-0.1	-0.3	-0.7
Employment	-	-0.1	-0.3	-0.5
Current balance, \$billion	-6	-12	-24	-39
<b>Total OECD</b>				
Real total domestic demand	-0.5	-1.0	-1.7	-2.3
Real GNP	-0.5	-1.0	-1.6	-2.2
GNP deflator	-0.1	-0.4	-1.0	-2.0
Employment	-0.1	-0.3	-0.5	-0.7
Current balance, \$billion	4	3	1	-4

These detailed results refer to the case examined in column 1 of Table 2.

Table 6

Fiscal tightening in the United States, monetary easing in all countries  
(per cent change from baseline)

	1990	1991	1992	1993
<b>United States</b>				
Government expenditure \$billion	-30	-43	-60	-60
Real government expenditure	-2.7	-3.6	-4.7	-4.5
Real total domestic demand	-0.6	-0.2	0.3	0.6
Real GNP	-0.5	-	0.5	0.9
GNP deflator	-0.1	-0.4	-0.3	-0.1
Employment	-0.2	-0.1	0.1	0.2
Current balance, \$billion	0	2	-2	-10
Treasury bill rate	-1.5	-1.5	-1.5	-1.5
<b>Japan</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	-1.5	-1.5	-1.5	-1.5
Real total domestic demand	0.2	0.7	1.3	1.9
Real GNP	0.1	0.5	1.0	1.6
GNP deflator	-0.1	-	0.1	0.5
Employment	-	0.1	0.2	0.3
Current balance, \$billion	4	4	8	13
<b>OECD Europe</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	-1.5	-1.5	-1.5	-1.5
Real total domestic demand	0.1	0.4	0.7	0.7
Real GNP	-	0.3	0.5	0.7
GNP deflator	-	0.1	0.2	0.3
Employment	-	-	0.1	0.1
Current balance, \$billion	-4	-14	-13	-7
<b>Total OECD</b>				
Real total domestic demand	-0.2	0.2	0.6	0.9
Real GNP	-0.2	0.2	0.6	0.9
GNP deflator	-	-0.1	-	0.2
Employment	-0.1	-	0.1	0.2
Current balance, \$billion	0	-9	-9	-5

These detailed results refer to the case examined in column 2 of Table 2.

Table 7

**Fiscal tightening and monetary easing outside  
the United States only**

(per cent change from baseline)

	1990	1991	1992	1993
<b>United States</b>				
Government expenditure \$billion	-37	-65	-110	-150
Real government expenditure	-3.3	-5.2	-7.9	-9.6
Real total domestic demand	-1.2	-2.1	-3.1	-3.9
Real GNP	-0.9	-1.6	-2.2	-2.6
GNP deflator	-0.2	-1.0	-2.3	-4.0
Employment	-0.4	-0.7	-0.9	-1.0
Current balance, \$billion	15	29	49	71
Treasury bill rate	0.0	0.0	0.0	0.0
<b>Japan</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	-1.5	-1.5	-2.0	-2.0
Real total domestic demand	0.2	0.3	0.5	0.6
Real GNP	-0.1	-0.2	-0.5	-0.8
GNP deflator	-	-	-	-0.1
Employment	-	-	-0.1	-0.2
Current balance, \$billion	-5	-12	-23	-35
<b>OECD Europe</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	-1.5	-1.5	-2.0	-2.0
Real total domestic demand	0.1	0.3	0.4	0.5
Real GNP	-	-	-0.1	-0.3
GNP deflator	-	-	-	-0.1
Employment	-	-0.1	-0.2	-0.3
Current balance, \$billion	-7	-15	-27	-41
<b>Total OECD</b>				
Real total domestic demand	-0.4	-0.7	-1.1	-1.3
Real GNP	-0.4	-0.7	-1.1	-1.4
GNP deflator	-0.1	-0.4	-0.9	-1.6
Employment	-0.1	-0.3	-0.4	-0.5
Current balance, \$billion	3	0	-3	-9

These detailed results refer to the case examined in column 3 of Table 2.

Table 8

Fiscal tightening in United States, monetary easing  
in United States only: dollar falls

(per cent change from baseline)

	1990	1991	1992	1993
<b>United States</b>				
Government expenditure \$billion	-26	-28	-20	-10
Real government expenditure	-2.6	-3.0	-2.8	-2.7
Real total domestic demand	-0.3	0.6	1.4	1.9
Real GNP	0.1	1.0	1.7	2.0
GNP deflator	-	0.8	2.1	3.8
Employment	0.1	0.5	0.7	0.6
Current balance, \$billion	1	2	-3	-10
Treasury bill rate	-1.5	-1.5	-1.5	-1.5
Effective exchange rate	-5.0	-5.0	-5.0	-5.0
<b>Japan</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	0.0	0.0	0.0	0.0
Real total domestic demand	-	-	-	0.2
Real GNP	-0.1	-0.1	0.1	0.5
GNP deflator	-	-0.3	-0.4	-0.4
Employment	-	-	-	0.1
Current balance, \$billion	4	4	8	13
Effective exchange rate	2.3	2.3	2.3	2.3
<b>OECD Europe</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	0.0	0.0	0.0	0.0
Real total domestic demand	-	-0.1	-0.1	-
Real GNP	-0.2	-0.3	-0.2	-
GNP deflator	-0.1	-0.5	-0.6	-0.7
Employment	-	-0.1	-0.1	-0.1
Current balance, \$billion	-4	-14	-13	-8
Effective exchange rate	0.7	0.7	0.7	0.7
<b>Total OECD</b>				
Real total domestic demand	-0.1	0.2	0.5	0.8
Real GNP	-0.1	0.3	0.6	0.9
GNP deflator	-0.1	-	0.4	0.9
Employment	-	0.1	0.2	0.2
Current balance, \$billion	0	-10	-9	-5

These detailed results refer to the case examined in column 4 of Table 2.

Table 9

**Monetary tightening in United States only  
No fiscal tightening**

(per cent change from baseline)

	1990	1991	1992	1993
<b>United States</b>				
Government expenditure \$billion	0	-5	-14	-27
Federal deficit \$billion	-10	-37	-84	-145
Real government expenditure	0.0	0.0	0.0	0.0
Real total domestic demand	-0.7	-2.2	-3.3	-3.7
Real GNP	-0.5	-1.9	-2.8	-3.0
GNP deflator	-0.1	-0.8	-2.2	-4.1
Employment	-0.2	-0.6	-0.9	-0.8
Current balance, \$billion	8	23	35	4.4
Treasury bill rate	2.6	2.6	2.6	2.6
Effective exchange rate	-0	0	0	0
<b>Japan</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	0.0	0.0	0.0	0.0
Real total domestic demand	-0.1	-0.4	-1.0	-1.7
Real GNP	-0.3	-1.0	-1.8	-2.5
GNP deflator	0.1	0.1	-0.3	-0.9
Employment	-0.1	-0.2	-0.4	-0.5
Current balance, \$billion	-6	-13	-20	-25
Effective exchange rate	0	0	0	0
<b>OECD Europe</b>				
Real government expenditure	0.0	0.0	0.0	0.0
Short term interest rates	0.0	0.0	0.0	0.0
Real total domestic demand	0.0	-0.1	-0.3	-0.5
Real GNP	0.0	-0.3	-0.7	-1.0
GNP deflator	0.0	-0.1	-0.4	-0.8
Employment	0.0	-0.1	-0.2	-0.4
Current balance, \$billion	-3	0	-8	-18
Effective exchange rate	0	0	0	0
<b>Total OECD</b>				
Real total domestic demand	-0.3	-1.0	-1.7	-2.0
Real GNP	-0.3	-1.1	-1.7	-2.1
GNP deflator	0.0	-0.3	-1.0	-2.0
Employment	-0.1	-0.3	-0.5	-0.6
Current balance, \$billion	5	8	4	-3

These detailed results refer to the case examined in column 4 of Table 2.

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