

# RESOURCE PRICES AND MACROECONOMIC POLICIES: LESSONS FROM TWO OIL PRICE SHOCKS

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## INTRODUCTION

This paper reviews the experience, over the last decade, of the main effects of a change in oil prices on the economic performance of OECD countries. The concern is both with the direct effects of an oil price rise, and the indirect effects resulting from induced changes in economic policy. There is only brief mention of the reverse effect whereby macroeconomic policies and economic performance influence resource prices, particularly of oil. The emphasis is on what has been found to be quantitatively important, rather than on what may be of theoretical interest but of unproven importance.

Certainly the two main oil price rises, the first in 1973/74 and the second in 1979/80, were large. So too were the policy responses to them. Indeed these have been amongst the largest macroeconomic impulses the OECD has had to analyse over the last fifteen years or more of making its six-monthly sets of internationally-consistent economic projections, published each July and December in the *Economic Outlook*. These shocks have also been some of the most *difficult* to analyse. Given that the policy response to the second event was very different from that following the first, and that the effects of the second episode, considered in the large, are still being felt, the analysis in this paper is offered with some hesitancy. Specifically, the aim is to illustrate likely orders of magnitude, rather than to imply certainty. As this work progresses, it may prove necessary to revise the numbers, perhaps considerably.

### I. THE 1973/74 OIL PRICE RISE – DIRECT EFFECTS AND POLICY RESPONSES

The 1973/74 oil price rise was larger, and came more suddenly, than many economists had expected. Seeking to analyse it, economists found themselves without a wholly appropriate apparatus of thought, and lacking adequate forecasting procedures to project the likely consequences. It is today easy to forget, but at the time there was long and sometimes passionate discussion about whether that oil price rise, or indeed any such phenomenon,

could be simultaneously both inflationary (i.e. raising the price level) and deflationary (i.e. reducing the level of real demand). That the oil price rise would be inflationary was readily accepted – the Korean War commodity price boom, caused in large part by a rapid build-up in United States defence expenditure, was a relevant precedent for that. But the effects on demand and output of the substantial real income transfers from energy-consuming to energy-producing countries seemed more problematical. During the Korean war period primary producers spent their increased income quite quickly. Total spending was therefore little affected. But in 1974 it was realized, albeit on the basis of thought-experiments, there being no precedent, that OPEC was unlikely to spend all of its increased income immediately, and hence was likely to run a substantial surplus on the current account of its balance of payments for several years at least. But would this be deflationary of demand and output? Or would it be that in some sense “money always gets spent”? Would the OPEC surplus, lodged in OECD banks, bring down world interest rates, thereby supporting demand and output? Would there, *ex post*, be little discernible effect on activity? These were the questions asked in those traumatic days of early 1974.

By and large the broad conclusions arrived at in those months have stood the test of time. Economic thought and international consultation enabled forecasters and policy-makers to come fairly quickly to grips with the main elements of this essentially new development. But at the same time, *forecasting* the consequences of the oil price rise – getting the magnitudes right, with the correct lags – proved difficult. The OECD, for example, in common with most other forecasters, made its largest ever forecasting errors over the years 1974-76.

Reviewing the experience of that first oil shock period, it seems now that the quantitatively most important macroeconomic elements were as follows<sup>1</sup>:

- i) The oil price rise was indeed inflationary: of itself it probably directly raised the OECD general price level by 2 percentage points relative to what it would have been otherwise. And the induced wage/price spiral multiplied this figure several-fold over the next few years.
- ii) The oil price increase transferred to OPEC, from the OECD area and from non-oil developing countries, an amount of real income

Table 1. OPEC import volume and current balance

	1974	1975	1976	1977	1978
Import volume growth, per cent	40	36	15	14½	4
Current balance, \$ billion	59½	27¼	36½	29	4½

Source: OECD.

equivalent to about 2 per cent of OECD GNP, i.e. about \$150 billion per year. This transfer reduced world demand to the extent that OPEC had, for a period, a lower marginal propensity to spend than did the OECD consumers and companies, and the non-oil developing countries, from whom this income was transferred. This period lasted about four years: by the end of 1977 the OPEC current surplus – but not of course its accumulated surplus – had virtually disappeared, and OPEC import volumes had largely stopped growing (Table 1).

- iii) The price of fuels produced within the OECD area – principally coal, oil and gas – rose in sympathy with the price of internationally-traded oil, but with a lag. The OECD area produced at that time about half of its total fuel needs, so that something over 1 per cent of OECD GNP was potentially transferrable from OECD consumers and energy-consuming enterprises to the energy-producing part of the corporate sector, including public utilities. The precise magnitude depended upon the size of the energy sector and on the degree and speed of this sympathetic increase in the price of domestically-produced energy. Hence the effect was much greater in some OECD countries than others. This increment to corporate income, like that of the OPEC countries, was also spent only with a lag, a further important source of demand deflation, the potential magnitude of which may have been close to that of the OPEC surplus. This was not fully appreciated at the time.
- iv) To offset the expected deflationary consequences of this process, a number of governments shifted the stance of fiscal policy in an expansionary direction – among the biggest OECD economies Germany (which had tightened its stance in 1973 in response to the boom conditions in that year) expanded in 1974, and the United States, Japan, France, Italy and Canada expanded in 1975. Taking the major seven countries as a group, the discretionary shift of fiscal policy towards expansion in 1974 and 1975 together was very nearly 2 per cent of their combined GNP.
- v) Monetary policy was accommodating, with even nominal interest rates falling over the 1974/75 period in some countries: monetary policy apparently broadly accommodated both the expansionary swing in fiscal policy and the increases in the general price level.

In the environment created by these forces, OECD GNP fell slightly through 1974, at annual rates of  $\frac{1}{2}$  per cent in the first half and about 1 per cent in the second, and then fell really fast in the first half of 1975, at an annual rate of about 3 per cent. This was mainly the result of a sharp, and unpredicted,

collapse in private non-residential investment and a dramatic, and also unexpected, reduction of inventories (Table 2).

Table 2. Mechanical contributions<sup>a</sup> to change in real GNP  
seven major OECD countries  
Seasonally-adjusted annual rates

	1974		1975
	I	II	I
Private non-residential investment <sup>b</sup>	- $\frac{3}{4}$	- $1\frac{1}{4}$	- $1\frac{1}{2}$
Change in stockbuilding <sup>b</sup>	1	- $1\frac{1}{2}$	- $3\frac{1}{2}$
<i>Memorandum item:</i> Change in GNP	- $\frac{1}{2}$	-1	-3

a) Direct effects only, i.e. excluding multiplier effects.  
b) Expressed as a percentage of GNP in the previous period.  
Source: OECD.

Throughout this period consumers' expenditure too was volatile and difficult to forecast correctly; even after the event, some of the fluctuations in the proportion of income that was spent are hard to account for. While less volatile than investment and stockbuilding, consumption accounts for about 60 per cent of total expenditure in the OECD area as a whole, so that its fluctuations are quantitatively important.

In 1975 the OECD economy came out of recession. The OPEC current surplus, though still large, was falling. Inflation was slowing, and the impact of budgetary changes was strongly expansionary. After the sharp fall in the first half of the year, OECD GNP grew 5 per cent at an annual rate in the second half of 1975 and at a  $6\frac{1}{2}$  per cent annual rate in the first half of 1976. This was led by a sharp rebuilding of stocks and was sustained by consumption which, as a result of a significant and unexpectedly large fall in the saving ratio, grew in 1976 about 2 percentage points faster than income. Ultimately private fixed investment picked up also. Thereafter OECD spending behaviour became both more stable and more predictable. The rapid growth of early 1976 was not maintained, however, and GNP in Europe and Japan nowhere near reached potential.

## II. EVALUATING THE FIRST POLICY RESPONSE

While the OECD economy started to recover in 1975, in virtually no country was the rate of recovery sufficient to reduce unemployment significantly. Taking the OECD area as a whole, unemployment rose from 3¼ per cent in 1973 to 5¼ per cent in 1978. A second problem was that the large combined current account deficit of the OECD area – in large part the counterpart of OPEC's substantial surplus – quickly became very unevenly distributed across OECD countries, partly as a result of differential rates of domestic demand growth, partly as a result of differential rates of inflation and hence international price competitiveness, and partly because of different rates of supply-side adaptation to changed patterns of demand. The combination, in many countries, of a large oil-induced deficit on the current account of the balance of payments, and the large fall in private sector investment and stockbuilding, had its counterpart in a substantial public sector deficit, averaging, in 1975, over 4 per cent of GNP in the seven major countries taken together (Table 3).

Table 3. General government net lending<sup>a</sup>  
Per cent of GNP/GDP

	1971	1973	1975	1977	1979
United States	-1.7	0.5	-4.2	-0.9	0.6
Japan	1.4	0.5	-2.7	-3.8	-4.8
Germany	-0.2	1.2	-5.7	-2.4	-2.7
France	0.7	0.9	-2.2	-0.8	-0.7
United Kingdom	1.5	-2.7	-4.5	-3.1	-3.1
Italy	-7.1	-8.5	-11.7	-8.0	-9.3
Canada	0.1	1.0	-2.4	-2.6	-2.0
Average, seven countries <sup>b</sup>	-0.8	-0.1	-4.3	-2.2	-1.7

a) A minus sign indicates dis-saving.

b) 1981 GNP/GDP weights and exchange rates

Source: OECD.

The fourth problem was inflation which, while declining substantially from its peak rate of some 13½ per cent for the OECD area in 1974 was, at nearly 9 per cent in 1977, still higher than it had been in any year since the Korean war. Concern over inflation had two dimensions: the apparent increasing proneness of the OECD economy to inflation, and concern over the declining share of national income accruing as profit.

There had been concern over the apparently increasing inflation-proneness of OECD countries even before the 1973/74 oil price rise. A 1970

OECD report, for example<sup>2</sup>, had noted that "The general price level will have risen this year by at least 5 per cent in most OECD countries; this is more than double the average rate in the early 1960s. And for the first time in a decade, prices in world trade have been rising as fast as the general domestic price level." And looking to the future, the report noted "Some signs of a slowdown are now emerging ... but there are also disquieting signs that the problem of inflation may have got worse in the sense that, where traditional restrictive policies have been applied, the effect on prices has been less rapid and less long-lasting than in the past".

The other aspect of inflation performance that caused particular concern was the significant decrease in the share of profit in most countries after 1973 and emerging, although often not rigorously-documented, signs of accelerated substitution of capital for labour. For reasons that have not been completely satisfactorily explained many firms in the period following the 1973/74 oil price rise, when capacity utilization rates were still quite high, did not pass their higher fuel and wage costs fully into prices. Profitability suffered considerably, and cash flow positions deteriorated, these being important factors behind the dramatic decline of investment and stockbuilding in 1974 and 1975. The extent of this phenomenon can be indicated by the so-called "real labour cost gap", a measure which is obtained by taking the changes in the ratio of real total compensation per head of dependent employment to real national income per person employed. The individual figures shown in Table 4, being ratios of index numbers, have no absolute significance: but changes over the period illustrate the extent to which profits suffered after 1973. In retrospect, most observers seem to agree that the failure to ensure that the increase in energy prices was fully passed on to consumers, with the result that profit shares were eroded, was an important mistake in the period following the first large oil price rise.

Table 4. Real labour costs relative to real national income<sup>a</sup>

Indices, 1972 = 100

	1973	1974	1975	1976
United States	99.7	100.8	100.1	100.1
Japan	103.9	110.4	113.2	111.7
Germany	101.5	105.2	104.1	101.7
France	101.3	105.0	109.5	109.8
United Kingdom	101.1	107.0	112.0	106.7
Italy	101.5	102.4	107.2	104.9
Canada	98.4	100.5	105.2	106.7
Average, seven countries <sup>b</sup>	100.9	103.9	105.1	104.2

a) Change in real total compensation per employee divided by real national income per employed person, national accounts basis.

b) 1981 GNP/GDP weights and exchange rates.

Source: OECD. For further information, and the basic data, see *OECD Economic Outlook*, No. 32, December 1982, Table 21, page 45.

### III. THE 1979/80 OIL PRICE RISE – DIRECT EFFECTS AND POLICY RESPONSES

The second oil price rise, equivalent, like its predecessor, to some 2 per cent of OECD GNP, struck before OECD economies had fully recovered from the first. Inflation re-accelerated, current account deficits increased, public sector deficits swelled, and unemployment rose yet further. Taken together, these presented a greater problem for policy in nearly all economies than in any previous post-war cycle – see the “diamonds” in Chart 1, which show, for each of three or four post-war cycles, average values for these four variables for each of the twelve countries for which all these data are available on a comparable basis. The larger the diamond, the greater the values of these variables and hence the greater the overall policy problem.

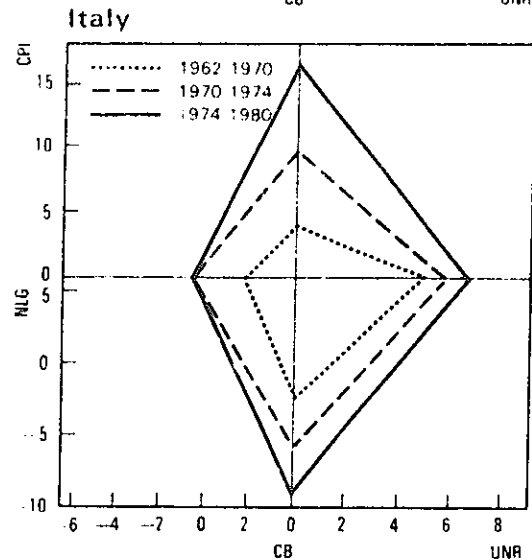
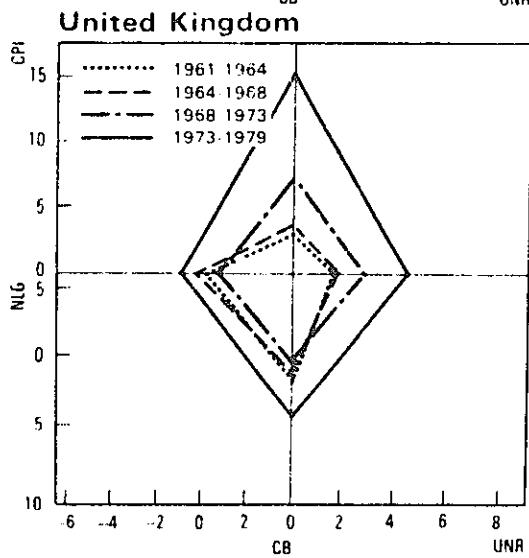
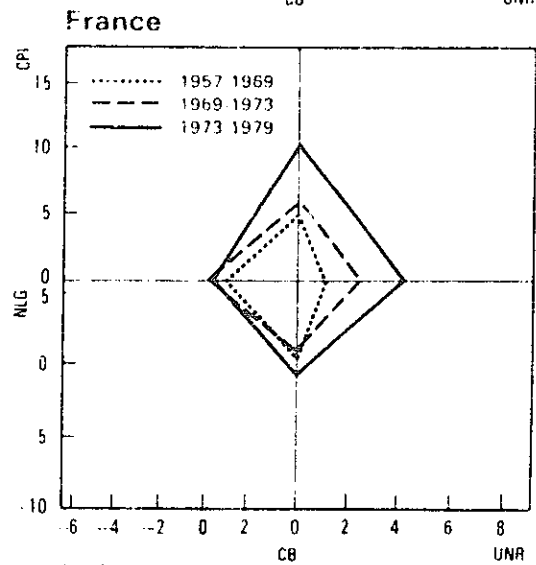
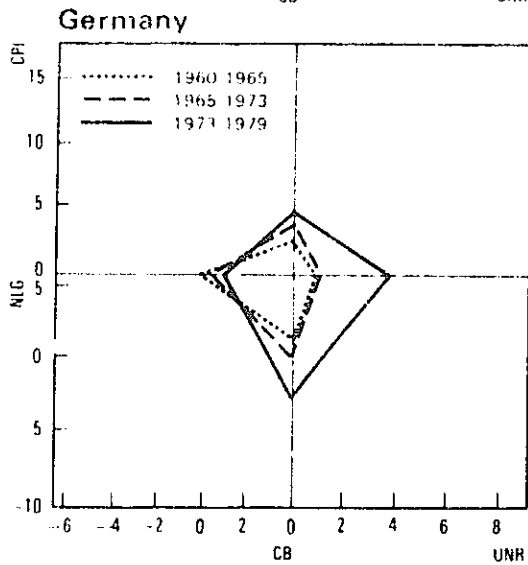
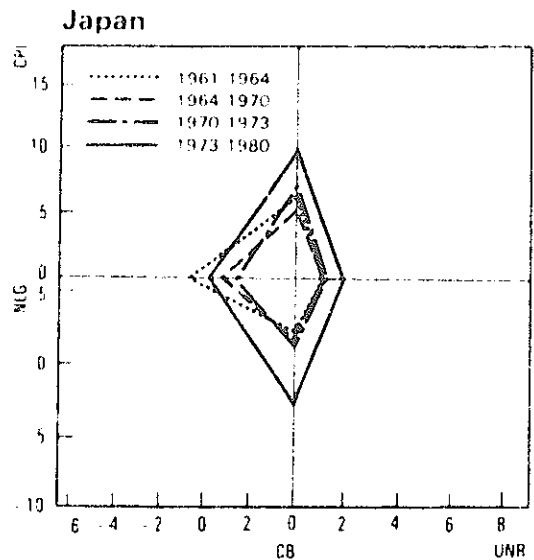
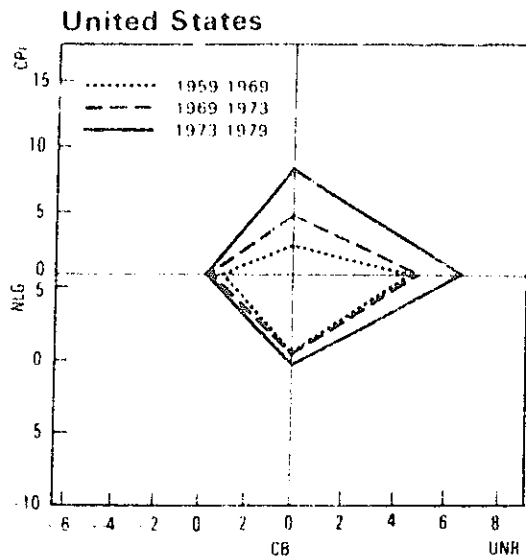
Faced with these four major problems the policy imperatives this second time round were judged rather differently. Rather than seeking to support demand in the short run, the over-riding concern, felt by virtually all OECD governments, was to contain the inflationary impulse and to prevent, through a rapid adjustment of real wages, the price shock becoming built into the domestic wage/price spiral. Part of the concern was over inflation *per se*. But perhaps the more important part of the concern was to prevent wages rising at the expense of profits. It was hoped to maintain and, if possible, increase profitability, in order to lay the foundations for a high and sustained level of investment, needed if the upswing (when it came) was to prove self-sustaining.

There was also considerable concern over budget deficits, partly because of their perceived large and growing structural elements, partly because of a fear that their financing might crowd out productive investment, and partly because the composition of public expenditure, and the growing share of the public sector in general, were all considered to be obstacles to future growth.

In the light of these concerns OECD governments shifted the stance of fiscal policy significantly towards restriction. Taking the three years to 1982 together, the cumulative swing towards fiscal restriction of the major 7 economies as a whole amounted to about 1½ per cent of their combined GNP (Table 9). Thus to the deflationary impact of the oil price rise itself was added extra deflation by the fiscal action of OECD governments. But in addition, and in contrast to the post 1973 period, monetary policy was also to play an important restrictive role. Towards the end of 1979 the United States changed its methods of monetary control, setting strictly-adhered-to targets for the growth of the monetary aggregates. Taken in relation to the prevailing growth of nominal GNP, this represented a significant tightening of monetary

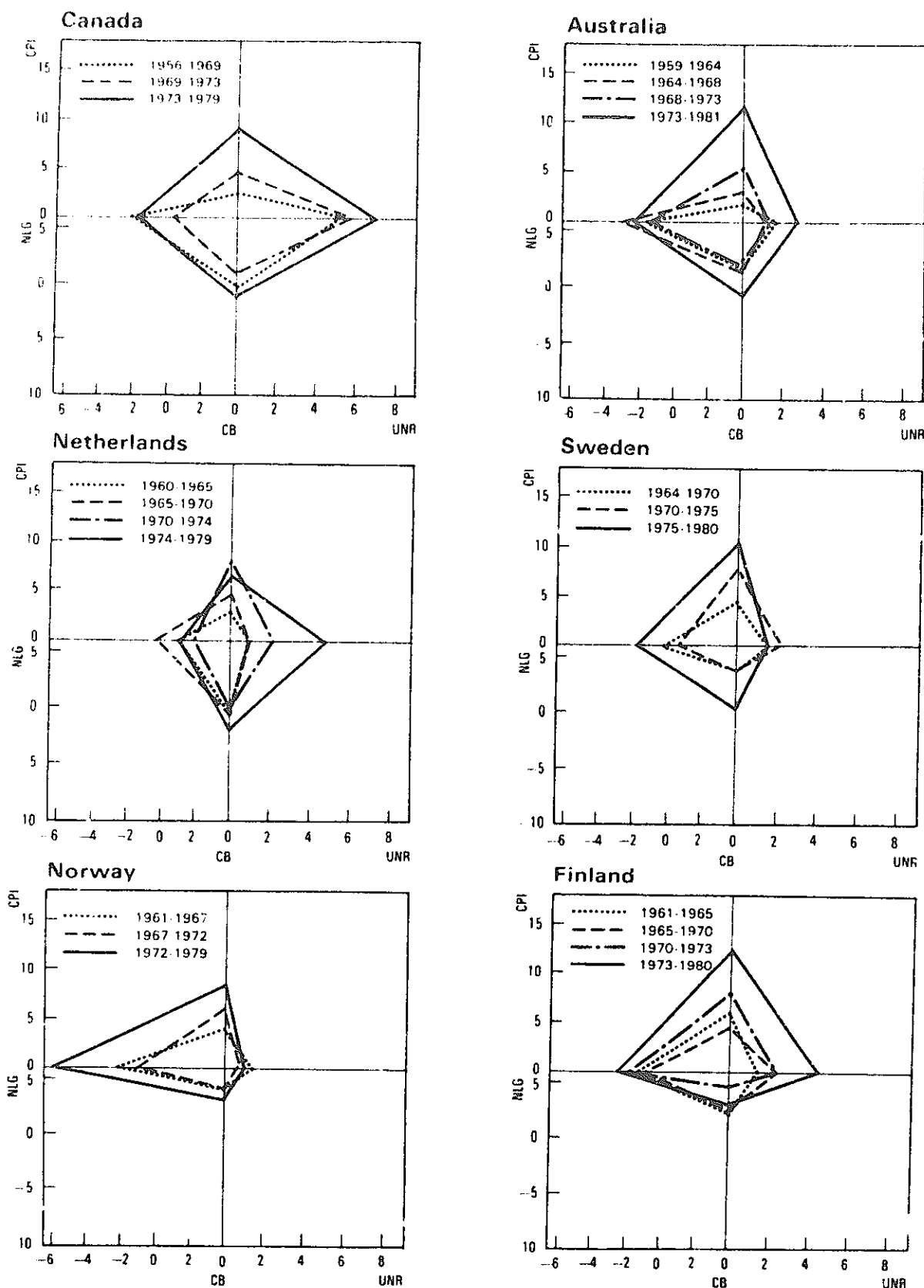


# MACROECONOMIC IMBALANCES



**Note.** The four axes represent  
**CPI** Percentage increase in consumer prices - annual rate.  
**NLG** Net lending of general government, expressed as a percentage of GNP/GDP.  
**CB** Current external balance expressed as a percentage of GNP/GDP.  
**UNR** Rate of unemployment

## MACROECONOMIC IMBALANCES (continued)



**Note:** The four axes represent  
**CPI:** Percentage increase in consumer prices, annual rate.  
**NLG:** Net lending of general government, expressed as a percentage of GNP/GDP.  
**CB:** Current external balance expressed as a percentage of GNP/GDP.  
**UNR:** Rate of unemployment

Table 5. Real interest rates<sup>a</sup>  
Averages of monthly data

	1965-1972	1973-1975	1976-1979	1980-1982
United States	1.57	-2.04	-0.16	1.97
Japan	2.56	-6.11	1.49	3.34
Germany	4.04	2.76	3.02	3.70
France	3.05	-0.80	0.99	2.41
United Kingdom	3.37	-1.88	0.12	1.70
Italy	4.05	-5.65	-1.43	0.88
Canada	2.99	-1.26	0.94	2.84
Average, seven countries <sup>b</sup>	2.48	-2.28	0.56	2.39

a) Defined as average long term interest rates minus the average annual percentage change in consumer prices.

b) 1981 GNP/GDP weights and exchange rates.

Source: OECD.

policy, resulting in volatile and, on average, high real rates of interest defined, somewhat arbitrarily, as average long-term interest rates minus the average growth rate of consumer prices. These rates quickly spread to other countries which, concerned to prevent depreciation-induced inflation, swiftly tightened their monetary policies too in an effort to limit this effect (Table 5).

The OECD has attempted, by means of model simulation, to quantify the effects of the main forces at work on the OECD economy over the period since 1978 (Table 6). Calculations of this sort cannot, by their nature, be completely certain. But the effects of the oil price rise on OECD GNP would appear to have built up through 1979, exerting their main contractionary effect in 1980. The effect was beginning to taper off in 1981, as the OECD's terms of trade stabilized and OPEC import volumes grew strongly. The effect of fiscal policy would seem to have been mildly contractionary in 1979 and 1980, but quite strongly so in 1981. The effects of monetary policy are much harder to quantify. On the basis of past evidence of the effects of interest rate changes on expenditure, the main impact would have been in 1981, reducing OECD GNP by something less than 1 per cent relative to what would have been the case under a neutral monetary policy. But the general weakness of demand in

Table 6. Estimates of main forces acting on the OECD economy  
Per cent contribution to change in real GDP

	1978	1979	1980	1981
Oil	0	- $\frac{1}{3}$	-2 $\frac{1}{4}$	- $\frac{1}{2}$
Fiscal policy	$\frac{1}{2}$	- $\frac{1}{3}$	- $\frac{1}{2}$	-1 $\frac{1}{2}$
Monetary policy	0	0	0	- $\frac{3}{4}$
<i>Memorandum item:</i> Change in GNP	4	3	1 $\frac{1}{4}$	1 $\frac{1}{2}$

Source: These figures, which include estimated multiplier effects, are based on simulations carried out using the OECD Secretariat's INTERLINK model. For a description of the model, see the Annex to the preceding article.

1982 suggests that the effects of tight money may have continued to build up, with an even greater negative impact in that year than in 1981.

These estimated deflationary effects of the oil price rise are slightly smaller than earlier seemed likely to have been the case<sup>3</sup>, because it is now apparent that OPEC import volumes grew somewhat faster (and hence OPEC countries' current accounts approached balance somewhat sooner) than had earlier been expected. Particular uncertainty attaches to the estimated effects of monetary policy which, at least as represented by real interest rates, has been unusually tight, and for a comparatively long two-year period. The estimated effects have been derived from evidence of earlier episodes, when real interest rates were, on average, considerably lower. Perhaps the most notable feature of the period after the second large oil price rise is that, despite the much tighter fiscal policy stance than after the 1973/74 episode, OECD GNP continued to grow in both 1980 and 1981. In substantial part this was due to the steadier behaviour of inventories and, particularly, private non-residential investment, which has held up better than many forecasters had expected.

#### IV. EVALUATING THE SECOND POLICY RESPONSE

Evidence discussed in the December 1982 issue of the *Economic Outlook* is drawn on in this section, which focusses on the four main problems that policy had to contend with – inflation, current account deficits, public sector deficits and unemployment.

The most conspicuous success of policy over this period has been the reduction in inflation (Table 7). The inflation outcome for 1982 was lower than

Table 7. **Consumer prices**  
Per cent

	Peak annual increase <sup>a</sup>	Latest 12 month increase <sup>b</sup>	Change
United States	13.5	3.8	-9.7
Japan	8.0	2.0	-6.0
Germany	5.9	3.9	2.0
France	13.6	9.6	-4.0
United Kingdom	18.0	4.9	13.1
Italy	21.2	16.2	-5.0
Canada	12.5	8.3	-4.2
Total OECD	12.9	6.4	-6.5

a) 1980, except for Germany and Canada (1981)

b) January 1982 to January 1983.

Source: OECD.

for any year between the two oil shocks – indeed, the best performance for a decade. And the 6½ percentage point reduction from nearly 13 per cent in 1980 to about 6½ per cent in early 1983 was about 2 percentage points greater than the reduction in the two years following the 1974 peak. And there are good reasons to expect further progress during 1983. On the other hand, the record is not one of complete success. First, OECD inflation still remains above the rate of the late 1960s and early 1970s. Second, a third or more of the decline in inflation may be attributed to the weakness of primary product prices, which could be expected to recover in the event of a pick-up of activity. Third, international disparities are still wide; twelve OECD countries have inflation rates above 10 per cent. Fourth, the two large countries with the greatest reductions in inflation owe part of this to exchange rate appreciations that imply major losses of competitiveness.

In line with this better inflation picture has been a greater degree of nominal and real wage flexibility, promoting the adjustment of factor shares and, to a lesser extent, profit positions. For example, the growth in hourly earnings in manufacturing for the seven largest economies in 1982 was barely ½ percentage point above the average rate of increase over the 1962-72 period and real wages in most countries have not moved significantly out of line in the way that they did after the 1973/74 shock (Table 8).

Table 8. Real labour costs relative to real national income<sup>a</sup>  
Indices 1979 = 100

	1980	1981	1982
United States	100.3	99.8	101.3
Japan	99.0	99.3	100.3
Germany	101.2	100.9	98.5
France	101.4	103.5	102.2
United Kingdom	102.8	101.6	98.6
Italy	100.0	104.7	105.5
Canada	100.6	100.9	103.7
Average, seven countries <sup>b</sup>	100.4	100.6	101.0

a) Real total compensation per employee divided by real national income per employed person, national accounts basis.

b) 1981 GNP/GDP weights and exchange rates.

Source: OECD. For further information, and the basic data, see *OECD Economic Outlook*, No. 32, December 1982, Table 21, page 45.

Nevertheless the sharp reduction in productivity growth over the past few years has meant that progress in reducing unit labour costs, and in improving corporate balance sheet positions, has been more limited. For example, had productivity gains since 1979 been merely half those experienced during the

1960-72 period (2 per cent rather than 4 per cent annually), factor shares both in the total OECD economy and in manufacturing would be approximately back to the levels prevailing in the early 1970s. Furthermore, factor shares are not the whole story: profitability is also important as a determinant of investment. Although comparable cross-country data are somewhat fragmentary, it is clear that in a number of countries profitability fell quite sharply after the second oil shock also, partly as a result of the exceptionally high real interest rates.

Current account deficits have evolved somewhat better than after the 1973/74 oil price shock: while the total OECD deficit was about the same size in relation to GNP as in the earlier episode, the distribution has been somewhat less uneven across OECD countries. However, while the recycling experience gained over the earlier period ensured, for three years, the relatively smooth financing of current account deficits within the OECD, the growing debt burden of some non-oil developing countries has threatened to become unsustainable.

In the reduction of budget deficits, however, policy has been less successful (Table 9). There can be no doubt about the will of governments to reduce them. As already noted, the effect of action taken by the seven largest countries over the three years from 1979 in respect of expenditure and tax rate changes might, taken by itself, have been such as to reduce their combined deficit by nearly 1½ per cent of GNP; only in the United States has there been a move towards expansion, and that only small. But governments' efforts in many countries have been frustrated by two factors in particular. First, in the general deflationary climate, itself in part due to the fact that many countries

Table 9. Changes in budget balances<sup>a</sup>, 1979 to 1982  
 -- : Movement towards deficit

	Actual change	Effect of changes in economic activity	Effect of increased interest payments <sup>b</sup>	Apparent "ex ante" change <sup>c</sup>
United Kingdom	1.1	-4.4	-0.5	6.0
Japan	1.5	-0.7	-1.2	3.4
Canada	-4.4	-5.7	-1.3	2.6
Germany	-1.4	-2.8	-0.7	2.1
France	-2.2	-2.5	-0.9	1.2
Italy	-2.9	-2.3	-1.8	1.2
United States	-4.3	-3.5	-0.6	-0.2
Average, seven countries <sup>d</sup>	-2.3	-3.0	-0.8	1.5

a) General government financial balances, per cent of GDP/GNP.

b) On public debt, assuming one-third of interest payments is returned to the government in taxes.

c) i.e., excluding effects of changes in economic activity and increased interest payments.

d) 1981 GNP/GDP weights and exchange rates.

Source: OECD.

were simultaneously adopting tight policies, all deficits were swollen by the "automatic stabilizers" – reduced tax yields and increased payments to the unemployed – on average by perhaps 2½ to 3 per cent of GNP. Second, increased interest payments, resulting largely from higher interest rates but also from increased indebtedness, may have pushed deficits up by between ½ and 1 per cent of GNP. Overall, then, actual deficits *widened* on average by over 2 per cent of GNP. The only countries among the seven to achieve reductions were Japan, where the cyclical effect on the public finances was relatively small, due largely to a strong boost to activity from the external sector, and the United Kingdom, where the apparent *ex ante* change in the budget position was exceptionally large.

Lastly unemployment, the fourth of the major policy concerns, has continued to increase, and in Europe the rise has seemed inexorable. The OECD average rate has moved up from 5¼ per cent in 1978 to over 8½ per cent at the end of 1982, with all countries apart from Japan and a few of the smaller European countries experiencing big increases. The main factor behind the rise has probably been the virtual stagnation of demand, although cost and structural factors have also been at work, notably in Europe.

## CONCLUSIONS

This paper has been concerned largely with oil price changes and induced macroeconomic policy changes, without consideration of the numerous, and important, supply side effects. From this standpoint the sequence of the two oil shocks suggests that, as far as activity and inflation are concerned, no way has yet been found for the OECD economy to come through such an event unscathed. The years after 1973 saw a recession which was reasonably short, but deep; although unemployment was higher at the end than at the beginning, inflation was not tamed. The post 1979/80 recession has been shallower, and inflation has been brought down much more. But the recession has been more protracted, and unemployment in the OECD area, already at a post-war high, seems almost certain to rise further throughout much of 1983. The shortfall of GNP below its trend on this second occasion has now been greater than on the earlier occasion<sup>4</sup>, even given the fact that the growth of potential output after the second oil shock was probably slower than after the first.

## NOTES

1. A fuller description of the key mechanisms involved can be found in for example OECD (1980), Allsopp (1977), Corden (1977), and Fried and Schultze (eds.) (1975).
2. *Inflation – the present problem*, OECD, Paris, December 1970.
3. See for example Llewellyn, Ostry and Samuelson (1982).
4. This conclusion is based upon an update of the figures given in *OECD Economic Outlook* 31 July 1982, pp. 16-17: the data are available upon request.

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