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# Interest Rates, the Exchange Rate and Farmers

Gus Hooke\*

## 1. The Problem

Under a floating exchange rate regime, there is a *prima facie* case that interest rates and the exchange rate are too high if two conditions are met: first, the actual balance of the current account falls short of the desired balance and, second, there is involuntary unemployment.

This is clearly the case in Australia. Last year our external current account deficit was equivalent to 5 per cent of GDP. This figure is well above both our own historical average and the present deficit ratios of most developing countries. Our unemployment rate is 8 per cent. I am not aware of any recent estimates of the natural rate of unemployment in Australia. However, even if it were as high as the 5 per cent suggested for some OECD countries, there would still be a quarter of a million people involuntarily unemployed.

In this situation, Australia has a lot to gain from a more expansionary monetary policy. Domestically, lower interest rates would ease debt servicing problems, would stimulate investment and would reduce the squeezing of both the wages and profits shares by interest payments. Externally, they would reduce net capital inflow and, therefore, the exchange rate. The end result of this development would include a smaller current account deficit in line with the reduced capital inflow, increased output and lower unemployment.

But then a problem would emerge. It is likely that a more expansionary monetary policy would produce full employment before it sliced a large amount off the external current account deficit. What would this imply for the appropriateness of interest rates and the exchange rate at that point?

The answer depends partly on one's goals. If one leans more toward present than future consumption, and believes that the consequent reduction in the estate passed on to heirs should not be wholly in the form of reduced physical capital stock but should include increased foreign debt, one might think that interest rates and the exchange rate were about right. The preferred

policy mix would include a loose fiscal policy so as to encourage present consumption and ensure that part of the latter spills over into the balance of payments. Monetary policy would be complementary. It would aim to exploit any remaining scope for reducing the current account deficit and to produce full, but not over-full, employment.

On the other hand, if one thinks present consumption is too high, one could argue that fiscal policy should be tightened, making room for further cuts in interest rates and the exchange rate. In this case the issue of external debt financing of real domestic investment may disappear, depending on the size of the reduction in present consumption and the availability of investment opportunities.

I take the second view. I think that present consumption is too high and, accordingly, that fiscal policy is too loose. In fact, I would go further. Not only do I think that present fiscal stance is wrong, I also think it came about by accident. It is not what governments and their advisers had planned. If I am correct, then a lot of people besides farmers probably favour a tighter fiscal-easier monetary policy mix. So I would like to explain why I think the present fiscal stance was a mistake.

Table 1 shows income and absorption for the economy as a whole, and for its private and public sectors, in the early 1970s. It also shows the current account balance and the contributions of the private and public sectors to this balance. All variables are expressed as ratios to GDP.

The reason for choosing the early 1970s is that this marked the end of a very stable period for the Australian economy. For about two decades previously, growth had been high and fairly uniform, and unemployment and inflation had been low. More importantly, they had been quite predictable.

In this environment, Australians had been able to assess and react to the way in which their income was being allocated between consumption and saving. And they thought it was appropriate for individuals in their own right, and firms and governments acting on their behalf, to allocate a little more than a quarter of income to savings. Note also that, within consumption, they allocated less than one dollar in five to goods and services provided by governments.

Table 2 shows the same data for the mid-1980s. The most striking change is the reallocation of

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Table 1: Income, Absorption and the Current Account, 1969-70 to 1970-71 (per cent of GDP)

	Income	Consumption	Savings	Investment	Balance
Private	79	59	20	19	1
Public	19	14	5	8	-3
Total	98	73	25	27	-2

Sources: Australian Bureau of Statistics, *Government Financial Estimates*, No. 5501.0; *Quarterly Estimates of National Income and Expenditure*, No. 5206.0; and some unpublished data provided by the Bureau.

income from savings to consumption, and the spillover of the rise in consumption into the balance of payments.

The private sector contributed to the increased importance of consumption. The big rise, however, was in the consumption of goods and services provided by governments, to almost one quarter of total consumption spending.

The use of net income figures in the tables conceals another very important influence of governments on consumption. From the early 1970s to the mid-1980s the ratio of taxes and other revenues to GDP rose by 7 percentage points. However, the effect on the private and public income ratios was precisely offset by an increase in current transfer payments by governments to the private sector (Table 3). The latter comprised mainly social security benefits and interest payments.

To summarise, between the early 1970s and the mid-1980s there was a substantial switch in emphasis from savings to consumption. The rise in consumption was mainly in publicly provided goods and services. Within private consumption, there was an increase in the share financed out of transfer incomes provided by the government and a corresponding decrease in the share financed out of primary incomes.

Did the massive increase in government spending on current outlays represent a radical change in tastes of Australian voters? I think not.

What happened in many other countries, and I suspect did here also, was that governments and their advisers did not understand for quite a few years the nature of the large fall in growth that occurred in the mid-1970s. They thought the slowdown was temporary and at least partly cyclical. If it were temporary, there were sound economic and humanitarian reasons for maintaining earlier growth rates of real government expenditures. And if there was a cyclical element, one could even put forward some Keynesian arguments for boosting them a little.

Unfortunately, the decline was neither temporary nor cyclical. What I believe happened was as follows. In the western world, the growth of potential GDP, as determined by labour force increases and technical progress, seems to have averaged approximately 3 per cent a year for about the last century. During the first half of that period, actual growth also averaged about 3 per cent a year and, at the end of the 1920s, actual and potential GDP may have been roughly equal.

The work force continued to rise during the 1930s, and universities and enterprises continued to produce new ideas. But actual GDP changed very little in the 1930s and the growth that took place in the early and middle 1940s was in activities that, fortunately, we felt we needn't continue to support. So the western world entered the 1950s with a sizeable shortfall of

Table 2: Income, Absorption and the Current Account, 1983-84 to 1984-85 (per cent of GDP)

	Income	Consumption	Savings	Investment	Balance
Private	78	60	18	16	2
Public	19	19	0	7	-7
Total	97	79	18	23	-5

Source: as for Table 1.

*Table 3: Current Receipts and Outlays of Government (per cent of GDP)*

	1969-70 to 1970-71	1983-84 to 1984-85
Receipts	28	35
Outlays	23	35
Goods & Services	(14)	(19)
Transfers	(9)	(16)
Saving	5	0

*Source:* as for Table 1.

*Table 4: Receipts, Costs and Income of Average Farm, 1985-86 (dollars)*

Total cash receipts	107 730
Total cash costs	83 700
(of which interest)	(11 540)
Farm cash operating surplus	24 030
Increase in trading stocks	5 170
Depreciation	17 880
Farm income	11 320
Off-farm income	8 000
Total Income	19 320

*Sources:* Bureau of Agricultural Economics, *Farm Surveys Report*, March 1987.

actual from potential GDP. As a result, it was able to sustain actual GDP growth of about 5 per cent a year until it came up against the more slowly rising potential GDP ceiling in the mid-1970s.

If governments had realised earlier that the slower growth of the middle and late 1970s was simply a first taste of what was in store for probably at least the rest of the century, they almost certainly would not have allowed the huge blowouts in government spending to GDP ratios. Nor would we have had the large rise in public deficit ratios. We would therefore have had much more scope than presently exists for easing monetary policy and lowering interest rates. And, in Australia's case, for reducing the exchange rate.

## 2. The Effects on Farmers

Farmers as a group stand to gain considerably from an easing of monetary policy. They owe much more than they have lent, so they would benefit substantially from a fall in interest rates. And they export more than they import, so they would also gain a great deal from a lowering of the exchange rates.

### (a) Interest rates

Interest payments are a major cost to farmers. In 1985-86 these payments averaged \$11 540 per farm (Table 4). Their share in total costs, of 14 per cent, was the highest after materials (35 per cent) and services (27 per cent) and was three times the share paid as wages to hired labour.

In 1985-86, average farm debt was \$80 000. Each percentage point reduction in interest rates would, therefore, have increased farm income by

\$800. Since farm income in that year was \$11 320, each percentage point reduction in interest rates would, in the early stages, have increased farm income by 7 per cent. A reduction of 5 percentage points would have had a larger effect than reducing the wages bill to zero.

Of course, farmers received as well as paid interest. A fall in interest rates would thus have reduced off-farm income. However, at \$34 000, the liquid assets of the average farmers fell well short of their business debt. Further, not all of these assets would have generated interest income. Thus, a fall in interest rates would also have made an important contribution to total income.

What is true for the average farmer is not, of course, true for every individual farmer. Many farmers would not benefit directly from lower interest rates. In 1986-87, 25 per cent of farms were free of debt and a further 25 per cent were carrying debt of \$14 300 or less. In 1985-86 the industry with the lowest debt relative to capital was beef with 6 per cent (Table 5).

The industry that would benefit most from a fall in interest rates is wheat and other crops. In 1985-86, farm debt in this industry was equivalent to 19 per cent, and farm liquid assets to 6 per cent, of farm capital. The situation of the industry did not improve in 1986-87. In that year, one farmer in eight owed \$294 000 or more and one farmer in two owed \$185 000 or more. In New South Wales, 53 per cent of wheat farmers were classified by the Bureau of Agricultural Economics as being at risk, having negative cash income and equity ratios below 70 per cent.

Table 5: Selected Average Farm Data for Different Industries, 1985-86 (dollars)

	Farm Capital	Farm Debt	Farm Liquid Assets	Farm Income
Wheat and other crops	675 620	126 590	41 240	-70
Mixed livestock and crops	669 770	79 270	28 420	11 520
Sheep	624 100	76 110	26 820	14 840
Beef	761 800	44 410	45 230	14 560
Sheep-Beef	737 120	73 530	27 650	22 140
Dairy	441 370	49 450	12 670	18 340
Horticulture	176 370	28 760	16 340	18 680
Total Agriculture	685 910	79 970	33 870	11 320

Source: as Table 4.

### (b) The exchange rate

A fall in the exchange rate would benefit the farm sector as a whole and most of the individual farmers in it. Prices of some farm inputs, particularly machinery and fertilizer, are affected by the exchange rate. However, the impact of a change in the exchange rate on farm costs is swamped by its accompanying impact on farm receipts.

Roughly two-thirds of farm output is exported. Consequently, the average price of the sector's output responds significantly to changes in the exchange rate. The magnitude of the effect on price, and also on output, depends on the price elasticities of demand and supply. Gordon (forthcoming) suggests that the values of the two elasticities are about the same and are quite low. This suggests that depreciation would increase the domestic currency price of rural products by about half the size of the depreciation and would have only a small effect on volume.

In 1985-86, average farm cash receipts were about \$107 000. A 10 per cent depreciation, which increased price by about 5 per cent would therefore have contributed about \$5 350 to gross receipts. Allowing for higher input prices, its effect on farm income would not have been much different to that of a 5 percentage points fall in interest rates.

### 3. The Solution

I suggest that the solution to our problem of high interest rates and an overvalued dollar lies partly in re-evaluating both our policy goals and the way we use our instruments to achieve these goals. Specifically, I believe that we should aim for a surplus in the current account of the balance of

payments and we should be more determined in our pursuit of full employment. I also believe that we should regard monetary policy, operating partly through interest rates and investment but mainly through the exchange rate and output in the trade-exposed sector, primarily as an instrument for achieving our employment goal. Fiscal policy should then be regarded as the instrument for ensuring that full employment is accompanied by attainment of our current account goal.

### (a) The external current account balance

Traditionally, the developed countries have been net lenders to the developing countries. This has required that the developed countries run surpluses, and the developing countries run deficits, on the current account of their balance of payments. From the viewpoint of international equity, it was probably never appropriate for a relatively rich country such as Australia to tap into the flow of funds moving from the developed to the developing countries. Until recently, however, it may have been in our self-interest to do so. Investment opportunities, particularly in the resources sector, were abundant. And interest rates were low, or even negative, in real terms.

Today it is not even in our self-interest to run a current account deficit. Investment has fallen from 27 per cent of GDP in the mid-1960s to 23 per cent in the 1980s. Even though the latter may be too low, it seems unlikely that we can return to the ratio associated with the high, resource-based growth of the 1960s and early 1970s. Further, interest rates have become very high in real

terms.

Whereas we used to borrow at low rates of interest to finance investment, now we borrow at high rates of interest to finance consumption. It is time we did ourselves as well as the developing countries a favour by eliminating our external current account deficit and starting to reduce our very large external debt. An external current account surplus equal to 1 per cent of GDP might be a useful working goal.

### (b) Fiscal policy

Once the existing scope for reducing interest rates and the exchange rate has been exploited, fiscal policy should be tightened, with the object of generating a public sector current account surplus. To ensure that unemployment does not recur, monetary policy should be relaxed as fiscal policy is tightened, to offset multiplier effects associated with improvements in the budget balance.

How tight should fiscal policy be? The answer is given by the equation:

$$\frac{\text{Public Balance}}{\text{Ratio}} = \frac{\text{Desired Current Account Balance}}{\text{Ratio}} - \frac{\text{Full Employment Private Balance}}{\text{Ratio}}$$

where the public balance is the excess of public savings over public investment, the private balance is the excess of private savings over private investment, and all variables are expressed as ratios to GDP.

If it were accepted that the desired current account balance ratio should be 1 per cent, then the target public balance ratio would be determined by the full employment private balance ratio. How high is that likely to be? During the 26 year period to 1984–85, the private balance ratio averaged 2 per cent; it was 1 per cent in the high growth period up to the mid-1970s and 3 per cent in the low growth period since then. Suppose, for illustration, that improved policies and a more hospitable external environment were to permit a private balance ratio of 2 per cent in the 1990s. This would imply a target public balance ratio of minus 1 per cent.

What would this imply for fiscal policy? Last year, the Commonwealth Government realised a deficit in its general budget equivalent to 1 per cent of GDP. But the general budget of the Commonwealth Government is not the public sector. The latter also includes the general budgets of the state governments and local authorities as well as the budgets of the public trading enterprises. This broader public sector

incurred a deficit equivalent to 4 per cent of GDP in 1986–87 (Table 6). So a further reduction of 3 percentage points might be appropriate; this, in fact, was the actual improvement made during 1984–85 to 1986–87.

A final point. Every time the Federal Treasurer announces a tightening of fiscal policy, financial investors react by stepping up net capital inflow and placing upward pressure on the exchange rate. As an economist with one of Sydney's banks recently suggested, we may need to use some camouflage to reap the full benefits of the Government's efforts. We may need to produce the substance, while avoiding the appearance of fiscal tightening.

How can we do this? One way would be to concentrate the improvements in the public balance in the general budgets of the state governments and local authorities and in the budgets of the public trading enterprises. For example, what the Treasurer could have done this year was increase payment to the states by \$3 billion and reduce the Loan Council allocation of the States by the same amount. The overall public balance would not have changed but the Commonwealth's budget would have shown a larger deficit and the States' budgets a corresponding lower deficit. And it is the Commonwealth's deficit on which the less sophisticated financial journalists and financial investors focus.

The benefits of the approach outlined in this paper would include full employment and a diminishing overseas debt. The cost would be the reduction in government expenditure, hopefully consumption expenditure, required to lower the public deficit ratio. In my view the benefits would substantially outweigh the costs.

Table 6: The Public Balance Ratio (per cent of GDP)

	1986–87 (actual)	1988–89 (target)
General Budget	-2	-1
Commonwealth	(-1)	(-1)
State and Local	(-1)	(0)
Public Trading Enterprises	-2	0
Total	-4	-1

Source of 1986–87 data: Commonwealth of Australia Budget Paper No. 1, 1987–88.

## Reference

Gordon, J. (forthcoming), "The 1985 Depreciation and the J Curve", in A. W. Hooke and R. Reilly (eds), *Macroeconomic Policy in Australia*, Allen and Unwin, Sydney.

# Impact of Exchange Rate Fluctuations on the Mining Sector

R. Fraser\*

## 1. Introduction

This paper adopts an accounting approach to the topic—by drawing up a first round profit and loss account for the minerals sector<sup>1</sup> using different \$A/\$US exchange rates. One important assumption in the paper is that all Australia's mineral exports are sold in US dollar contracts. While this is not entirely true, with all steaming coal contracts now in US dollars the proportion of minerals and metals sold at US prices is well over 90 per cent. Being a first round snapshot of exchange-related changes to money flows, the analysis makes no price elasticity adjustments. Data is based on the Australian Mining Industry Council's Minerals Industry Survey, a comprehensive financial survey of the minerals sector which has been conducted for the Australian Mining Industry Council by Coopers & Lybrand annually over the last ten years.

The bottom line of this accounting exercise demonstrates that the costs associated with a falling Australian dollar are significant but, in all except the most highly geared companies, are outweighed by the increased Australian dollar revenue flows generated by a cheaper currency. That is, miners are better off with a low dollar.

The paper also looks briefly at the outlook for mineral prices and the trade-off between a firming dollar and rising prices.

## 2. The Costs of a Falling Australian Dollar

The considerable costs associated with a falling dollar can best be demonstrated by reference to one year's balance sheet. The latest year for which

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\*Economist, Australian Mining Industry Council. The views expressed are those of the author, not the Australian Mining Industry Council.

1. The minerals sector is defined as mining plus smelting and refining up to fabrication stage but excluding steel, oil and gas, and quarrying. This definition is different to that used by the Australian Bureau of Statistics (ABS) which includes oil and gas and quarrying but excludes smelting and refining. The definition used here does however more accurately reflect the functional organisation of the sector and therefore the way the sector defines itself.