

Discussion

1. Bob Gregory

Most economists believe that good macroeconomic policies generate faster economic growth over the longer term. But the empirical research that demonstrates convincingly which policies promote faster growth rates is remarkably insubstantial. This important Andersen and Gruen paper is to be welcomed both as a survey of the literature and for adding new Australian results for our consideration.

The authors have set themselves a very large task. These comments focus on the subsections of their paper that relate to the current policy issues concerned with inflation, economic growth and the balance of payments. Other sections of the paper are equally stimulating, but there is insufficient space to discuss them.

Growth and the Balance of Payments

There is no doubt that the electorate, a large proportion of economic commentators and a significant fraction of the business community regard the continual accumulation of large current account deficits as an important policy issue. None of these groups, however, tie the possible macro-policy responses to the deficit to the impact on the future long-run growth rates of the Australian economy. Andersen and Gruen attempt to do so.

Their analysis begins with an elasticities approach to analyse consistency between balance of payment outcomes and GDP growth rates. In its simplest form, it proceeds in the following steps:

- (i) it estimates a growth rate of foreign exchange receipts;
- (ii) it subtracts an estimate of exogenous capital inflows to estimate foreign exchange receipts available for imports; and
- (iii) it then applies the income elasticity of import demand to the growth of foreign exchange receipts to calculate the GDP growth rate consistent with foreign exchange receipts. The resulting GDP growth rate is consistent with a stable real exchange rate.

The estimated GDP growth rate is low – for example, 2.0 to 2.45 per cent per annum between 1972/73 and 1989/90. Australia grew faster than this and, as a result, there was a substantial devaluation of the currency and accumulation of foreign debt.

The suggestion that Australia can only grow at 2.0 to 2.45 per cent without real devaluations is a very pessimistic outcome. Other economic objectives, such as reducing unemployment, suggest a required GDP growth rate of nearer to 3.5 or 4.0 per cent for at least the next five years. Consequently, if we pursue the unemployment objective the prognosis is clear: reducing unemployment will involve continual real devaluations. This is the most important empirical message of the paper.

The analysis of Andersen and Gruen is very simple and with little effort one can imagine adding all sorts of sophistications or producing a long list of criticisms but, at the end of the day, the outcome would not be changed much.¹ The model and estimated

numbers seem to capture the Australian economy as many perceive it – put simply, when Australia grows at a rate that makes significant inroads into unemployment, the current account deteriorates, there is downward pressure on the exchange rate and policy is tightened.

Many academics and some policy makers have argued that we should forget about the balance of payments and that the current account deficit should not be thought of a constraint. They would not necessarily deny the validity of empirical analysis such as Andersen and Gruen, only the policy relevance.

But large devaluations arising from the large current accounts deficits will inevitably impose policy constraints. Even if the current account and exchange rate data could be hidden from policy makers, it would still be true that the combination of exchange rate devaluations and a low inflation target will impose strains that lead to policy reactions less favourable to the achievement of low unemployment.

If, in the longer term, Australia needs further large real devaluations, this poses significant policy problems. Real devaluations can be affected in two ways: either through domestic inflation rates which are significantly lower than those of our trading partners; or through nominal devaluations which are not offset by increased domestic inflation. Neither will be easy to achieve.

Domestic inflation rates below that of our trading partners seem very unlikely for three reasons.

- With the exception of some Asian countries, most of our trading partners, particularly New Zealand, Europe and the US, seem to be clearly on low-inflation paths. Consequently, to achieve inflation rates sufficiently lower than our trading partners is likely to require Australian inflation outcomes just marginally above zero.
- Current wage-setting arrangements seem unable to produce the very low nominal wage outcomes that might be required. Restricting nominal wage increases to produce the rate of inflation of our trading partners, as agreed by the ACTU, would be insufficient under the Andersen-Gruen scenario. What is needed is nominal wage increases lower than this. The prognosis is not optimistic in the current environment where enterprise agreements appear to extend to only 22 per cent of the labour force, and wage increases are currently proceeding at annual rates somewhere between 4.5 and 5.5 per cent, despite 8 per cent unemployment.
- The faster the rate of productivity growth, the higher will be the rate of any nominal wage increases consistent with low inflation rates. Productivity growth rates have accelerated recently, but it is unlikely that they will continue at the current rate. In the longer term, an underlying productivity growth rate of say, one or one and half per cent, average nominal wage increases of 4.5-5.5 per cent and the need for real devaluations, all seem inconsistent with an inflation target of 2-3 per cent. At least one of these links must change. Hopefully, underlying productivity growth will increase more than is currently indicated, but it seems unlikely.

1. The criticisms would include the following. Some attempt should be made to incorporate the saving-investment identity into the analysis. Perhaps the export elasticity is too low and the import income elasticity too high.

Given the Andersen-Gruen scenario, and the above interpretation of the current labour-market institutions, nominal exchange rate devaluations will be required. But how can this be managed without the price increases feeding into domestic prices and costs in a way which further increases inflation beyond that required to make traded goods more profitable?

Under a centralised wage-fixing system there is, in principle, an answer: wage increases could be discounted for necessary exchange rate devaluations. But we do not have a centralised wage-fixing system. If the Andersen and Gruen analysis is roughly right, it is not easy to see a clear way whereby we can achieve significantly lower unemployment, lower inflation and lower current account deficits on a long-term sustained basis.

Perhaps, however, the Andersen-Gruen empirics are not right and should be thought of as an interesting exercise that brings out some of the links between important economic variables. Application of an elasticities approach to the balance of payments has a long history in countries with large current account deficits, although it has become less common over the past two decades. It is an approach which usually leads to pessimism.

So to end the section on a more optimistic note we make two remarks:

- First, the large real devaluations that occurred in the mid 1980s seem to have strongly affected the rate of growth of Australian manufacturing exports. Growth rates have been well above historical standards and the future for manufacturing exports looks promising. Manufacturing export volumes were low and consequently fast growth rates have not impacted to a large degree on the current account deficit. As time passes, however, the impact of manufacturing export growth should become much more significant. In other words, perhaps Australian export receipts may increase quickly in the future and allow faster GDP growth rates.
- Second, the elasticities approach does not adequately focus on the changing saving and investment balance that is required to correct current account deficits. Australia will also need to save more if the current account deficit is to be changed. A policy response to increase savings is now in place with more attention being devoted to government saving and the development of superannuation schemes.

Inflation and Growth

Andersen and Gruen suggest that if Australia can reduce domestic inflation this will increase productivity which will raise living standards and increase output potential. These changes may make it easier to bring about the resource switch to the traded goods sector, and the expenditure reduction relative to output, that is required to change the current account deficit. The argument in this section of the paper is as follows: reversing the accumulation of current account deficits requires devaluations which, other things being constant, will produce more inflation. More inflation will reduce productivity growth. Hence the major policy problem is to control inflation and manage the real devaluation.

The empirical work linking inflation and productivity growth focuses on a database of 24 OECD countries, excluding Ireland and Turkey (Andersen and Gruen, Figure 4).

The analysis proceeds as follows:

- Casual inspection of Figure 4 suggests that inflation and GDP per capita growth rates are *positively* associated, especially if Japan and New Zealand are excluded.
- Consequently, to establish a *negative* relationship between inflation and GDP per capita growth rates, other variables must explain the positive relationship. To account for the positive relationship they regress GDP per capita growth against real per capita income of each country at the beginning of the period, which matters a great deal, and other variables which seem much less significant, such as secondary school enrolments and the investment share of GDP. This is the base regression equation.
- When inflation is added to the base regression equation, it exhibits a negative sign, but the coefficient is statistically insignificant (Andersen and Gruen, Appendix).
- They then adopt a different research strategy of adding sets of variables including inflation, to see whether the inflation coefficient changes or becomes significant as each new set of variables is added.
- They conclude that the accumulation of negative coefficients suggests that 'lower inflation leads to higher economic growth'.

There are many comments that can be made at each step of this analysis.

- What should be the relevant dataset? The first issue is to decide whether any countries should be excluded from the analysis. The authors exclude two countries, but one naturally feels uncomfortable about this decision since there is no obvious reason to exclude two of the outlying observations, but not the other two. The point is made clear from inspection of Figure 4. The line joining New Zealand and Japan (outlying data which will receive a large weight in a regression) is *negative*. These countries are included and must increase the likelihood of producing a negative relationship between productivity growth and inflation. The line of best fit for the other countries is clearly *positive*. Perhaps the results should have also been reported when the four outlying countries were excluded.
- The second issue involved in becoming comfortable with the empirical analysis is to make a judgment as to how many independent observations there are in the dataset. For our purposes, are Austria and Germany sufficiently disconnected to be treated as two separate observations? Similarly, should Belgium, Luxembourg and Holland be separate observations? This concern will become more important as the integration of Europe increases. If the effective number of observations is considerably less than 24, then there must be doubt as to the statistical power of the analysis.
- The major variable explaining the different per capita growth rates of GDP is the base period GDP per capita of each country. This variable measures the catch-up effect. The very strong performance of this variable, in the context of Figure 4, suggests that the more catch-up is undertaken, the greater is the inflation rate. This invariably makes one feel uneasy about the ability of the regression analysis to adequately allocate the effects of catch-up and inflation separately.
- The technique that Andersen and Gruen apply to the data involves adding combinations of the same set of variables to the same base equation and observing

the change in the inflation coefficient. The inflation coefficient is negative in all but one regression and, for the period as a whole, is often significant at the five per cent level. How should we treat this accumulation of negative coefficients? I am not sure because it is important to realise that each regression is not a separate test of the hypothesis. It is the same database and the same variables that are being alternated.

- Finally, it is disappointing that the weakest results are derived from the second most recent period. This invariably reduces the confidence that we can place in the results for current policy.

My judgment is that the support for a negative relationship between inflation and productivity growth is not as strong as suggested by the authors. There are obviously matters of empirical judgment to be made, but it just seems that too much effort has to be expended to find the results and reverse the impression created by Figure 4.

The paper includes other interesting features that have not been discussed here. There is a table, and comments, in the Appendix which show that the persistence of policy-related variables is much greater than the persistence of GDP growth rates. Persistence of inflation is also much greater than the persistence of productivity growth. The implications of these results deserve a paper of their own. The initial conjecture that it is the incidence of shocks that affect the different performance of countries, rather than policy differences, is interesting.

2. General Discussion

Discussion focussed on two main questions about the effect of the macroeconomic environment on productivity and growth:

- Is there an external constraint on long-run growth?
- What is the relationship between inflation and growth?

There was agreement that low domestic savings are a constraint on investment and growth if capital is not sufficiently mobile between countries. It was argued, however, that the correlation between saving and investment identified by Feldstein and Horioka cannot necessarily be interpreted as a sign of capital immobility. It could, for example, be induced by governments targeting the current account. It was also suggested that the ways in which the current account deficit might constrain growth should be examined in a different framework. In particular, it was suggested that externalities associated with current account deficits should be given greater prominence. It was also argued that external imbalances may generate uncertainty inhibiting long-term investment and growth, or perhaps lead to greater fluctuations in the business cycle.

Nonetheless, many felt that saving-investment imbalances are an important issue, and that deficient domestic savings are of policy concern. On this point, it was also argued that education and health expenditure should be classified as investment rather than consumption. While this does not change the fiscal or external balance, it does imply that government investment and savings are higher than official statistics suggest.

The issue of addressing imbalances between saving and investment led to discussion about the role for macroeconomic policy in creating an environment conducive to

growth. Here, there was agreement that macro policy makers must ‘get the basics right’, since policy mistakes can be very costly. But does good macro policy influence long-run growth only at the margin, or is its effect more powerful? This question led to discussion about the long-run gains of low inflation.

There was a consensus that high rates of inflation adversely affect growth. At rates of inflation relevant for advanced industrial countries, however, there was disagreement about the empirical evidence. There was discussion about Figure 4 in the paper which suggests a *positive* bi-variate correlation between inflation and growth. It was pointed out, however, that while poorer countries tend to have higher inflation, they also tend to grow faster because of technological catch-up – thereby generating a spurious positive correlation between growth and inflation. There was also discussion about the role of outliers and measurement errors in influencing the empirical results.

Some participants agreed with the paper that the widespread finding of a negative relationship between inflation and growth, even if sometimes statistically insignificant, was suggestive that lower inflation is indeed conducive to faster growth. The point was also made that while the growth effects of low inflation may be small, when cumulated over long periods of time, the consequences for output and living standards can still be substantial.