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Current Account Deficits, External Liabilities And Economic Policy

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Abstract

This paper assesses the policy significance of foreign liabilities and the current account deficits that give rise to them. Current account imbalances are shown to have some capacity to indicate difficulties elsewhere in the economy, but are imperfect indicators and subject to potential misinterpretation. The paper concludes that successful pursuit of internal balance could be an important factor in stabilizing current account balances, but, beyond that, there seems no good reason for using macroeconomic policy to target the current account as such. However, there may be grounds for microeconomic action to remedy specifically identified problems.

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Summary

Although there is now greater acceptance that macroeconomic policy should not target the current account, some economists still argue for it and some governments still practice it. The paper assesses the policy significance of foreign liabilities and the current account deficits that give rise to them from the starting point of an ideal world in which unrestricted private foreign investment would be optimal. Relaxing these ideal conditions provides a way of evaluating the argument that the size and flow of private indebtedness could signify policy problems.

The paper concludes that while deficits and debt may have some capacity to suggest the existence of difficulties elsewhere in the economy, at best they are imperfect indicators and, at worst, they may be very misleading if wrongly interpreted. The paper points out that the successful pursuit of internal balance could be crucial to the stabilization of current account balances. Apart from this, there seems to be no good reason for using macro policy to target the current account, although there may be grounds for microeconomic action to remedy problems that can be clearly identified. It would then seem preferable to concentrate analysis not on current account balances, but on the problems, if any, that appear to be at their source.

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I. Introduction

In the last decade there has been a world-wide move towards less government involvement in the private sector, bringing significantly freer financial and other markets. Perhaps as part of this process, there has also been a greater appreciation that current account imbalances can reflect beneficial international trade in saving. This has meant a move away from the view that indebtedness to foreigners is necessarily undesirable and its corollary that macroeconomic policy should target the current account. For example, the May 1990 World Economic Outlook (page 43) stated "The question whether the prospects for persistent external imbalances over the medium term should be viewed with concern thus cannot be answered simply by reference to the size of the imbalance, but requires an examination of the underlying stance of policies. In as much as the imbalances reflect an inadequate budgetary position, there is a clear implication for fiscal policy. If they reflect microeconomic distortions that affect private decisions to save or invest, then these distortions should be removed." 1/

Yet there are still many shades of opinion on the policy implications of deficits and foreign debt and some of these arise because there are questions relating to their significance on which there is not yet general agreement. The purpose of this paper is to discuss whether and in what circumstances current account deficits (and the associated foreign indebtedness) arising essentially from private sector transactions should generate macroeconomic or microeconomic policy action. 2/ It is concluded that, in many instances, arguments for macro policy to restrain the size of deficits can be rationalized as relating to internal rather than external balance. The principal conclusion on microeconomic policy is that it is by no means easy to infer from the private components of current account and net foreign liability data, when and where such policy is appropriate. Indeed, these data would seem to be merely one imperfect segment of the information necessary to decide on the need for microeconomic reforms. Usually, a much more fruitful approach would be to examine directly the specific problems of which deficits and foreign debt are the possible symptoms.

1/ There are now many other examples of a similar position being taken. Another official view is that by the OECD in its December 1989 Economic Outlook which makes the distinction that there may be good and bad deficits. Individually, a number of economists would share the assessment of Artis and Bayoumi (1990, p. 24) that "when there are no barriers to capital flows and capital is highly mobile ... the value of the current account is of little importance, being simply a residual outcome of private actions."

2/ Early analyses of these issues were by Corden (1974); and Salop and Spitller (1980). Other studies of the arguments behind the "new view of the current account" include Congdon (1982); Corden (1985, 1991); Lawson (1989); Pitchford (1989, 1990); and Sinn (1990).

A few examples will suffice to illustrate the nature of the issues under contention. Some countries still appear to use macroeconomic policy in attempts to influence current account outcomes. 1/ Apart from questions associated with fiscal balances, are there any circumstances in which this is appropriate? Suppose an economy has gone through a long period of excess demand which has produced a current account deficit higher than if there had been internal balance. Is it necessary to take policy action over and above that required for internal balance, for instance a fiscal surplus or monetary restraint, to reduce the resultant accumulated private net foreign debt? What should be the response of policy on current account deficits and foreign debt to doubts about the efficiency of foreign exchange and financial markets? Do measurement problems render much of the data on current account deficits and foreign debt inadequate or even misleading for the purposes of these policy questions? One problem not addressed in this paper is the current account and debt situations of LDCs, which because of special features would require separate consideration.

The analytical development which put current account issues into perspective was the recognition that this balance is identically equal to the sum of the fiscal balance and the private saving minus investment balance. From this it followed that the significance of a deficit could only be appreciated by an approach which recognized both sides of this identity. With fiscal balance a current account deficit represents an excess of private investment over saving, a process often called "capital importing", though it could equally be referred to as "saving importing". It is not hard to show that there are circumstances where an economy could benefit from capital importing. 2/ For instance, a country could have abundant natural resources but little capital so that the expected return to capital was higher than abroad. 3/ Capital movements in response to differences in expected rates of profit are a basic aspect of allocation within a country. Should this not apply also between countries? Yet there is the other view that current account deficits constitute an inherent problem. The two views of current account imbalances and the resulting foreign net assets or liabilities, lead to very different policy conclusions. If a deficit (or surplus) is inherently bad, micro and/or macroeconomic policy should be used to reduce it. If it is part of a process whereby capital moves to areas of highest returns, the *prima facie*

1/ Bayoumi (1990) argues that observed high correlation between saving and investment may be due to governments targeting the current account. Two countries which seem to have used macroeconomic policy to target the current account deficit in the eighties are Australia and Denmark.

2/ This insight is missed by the earlier one-sided approach to the current account and trade balance which emphasized disequilibrium, adjustment and the role of elasticities.

3/ The term 'expected return to capital' and similar expressions are used as shorthand for the present value of expected utility from the stream of future returns. This allows for degrees of risk aversion as well as discounting.

response is that it should be left for the market to determine capital needs. Of course, capital flows, like almost all other forms of economic activity, may be subject to market imperfections and distorting government regulations or other actions. These may be considerable problems, in which case the task of economic management is to identify and correct them. However, this involves a significantly different process from simply reacting to the size of deficits and/or debt.

International capital flows also occur in response to the needs of governments and in this case must be judged differently from those generated by the private sector. But in doing this it is not correct to focus on the current account balance or even on net foreign assets or liabilities. The pertinent questions to ask involve the appropriateness of government spending and taxation decisions and the consequent borrowing or lending. Many of these issues are political, but there will also be important economic questions, for instance in relation to: investment in government trading enterprises, the efficiency of the delivery of government services generally, the adequacy of the tax base to service the debt and the tax burdens on future generations.

Current account deficits must be financed by capital account surpluses, that is borrowing in the wider sense of the word from foreigners. It is worth noting that a fiscal deficit and the associated public borrowing does not necessarily give rise to increased foreign public debt. A fiscal deficit may be financed, for instance, entirely by borrowing from domestic residents, forcing domestic entrepreneurs to borrow abroad to finance part of their investment spending. It would then be wrong to infer from the size of private foreign borrowing that there was a private component of the current account deficit. The public/private proportions of the current account deficit (fiscal deficit compared with private investment/saving deficit) will not normally indicate the change in public compared with private foreign indebtedness and vice versa. It follows that the point of investigation and potential policy action in relation to government-generated changes in the current account deficit and foreign borrowing lies elsewhere than in that deficit. Consideration of the fiscal deficit issue again makes it clear that the correct way to formulate policy responses to changes in foreign liabilities and a current account deficit is to go behind that debt and deficit and ask whether the factors producing them are desirable or undesirable and what policy response these causes should produce.

The current account is an attempt to measure the increment in a country's net foreign assets. In principle, it can be examined without reference to the accumulation of assets or debt which it produces, because it is possible to have inherited from the past any combination of net asset positions and current account balances. However, the effect on foreign net assets is always an important consideration in the background. For expositional reasons, in what follows factors relating to current account deficits and net indebtedness are examined separately, the first in section II and the discussion of net asset positions in section III.

II. The Significance of Current Account Imbalances

It used to be traditional for "external balance" to be one of the targets of economic policy. Some have interpreted this concept as implying that macroeconomic policy should target the current account. This section begins with a consideration of what possible basis might be for this view. Following this, in section 2, the role of the current account balance and foreign debt is examined under those ideal conditions which would preclude the sources of most economic problems such as distortions arising from externalities and government intervention, business cycles, excessive fiscal deficits and so forth. In this world, foreign debt and the current account balance are most unlikely to give rise to policy responses. In subsequent sections, the conditions of an ideal world are progressively relaxed so as to appraise those arguments which see current account balances as problems.

1. The current account as a target

When textbooks advocate targeting the current account, the level chosen as the target is usually zero. In practical situations this has not always been the case and some notion of a longer-run non-zero equilibrium balance has often been targeted. 1/ The theory of economic policy specifies targets such as inflation, unemployment, growth, and external balance as arguments in a criterion function, as well as instruments such as monetary and fiscal policy with which to manipulate the economy. This approach contrasts with analyses of social welfare in other areas of economics where the arguments in the social welfare function are confined to the direct determinants of consumer welfare such as present and future consumption and leisure. If this approach were applied to macro policy, the usual macro targets would enter the calculation as aspects of the behavior of the economic system and not as criteria of performance. 2/ In particular, if it were optimal for the current account balance to attain a particular level, this would be achieved as an incidental part of the operation of the economy and not as a constituent element of a policy which had specifically chosen it as a target.

As noted above, the current account balance is identically equal to the excess of private saving over private investment plus the fiscal surplus. For the moment leaving aside the issue of the fiscal balance by

1/ Current account targeting as a policy concept reached its zenith in the traded/nontraded goods models of external and internal balance. A unique combination of the relative price of traded to nontraded goods and aggregate real expenditure achieved both targets and the object of policy was to move the economy to this point. For an exposition of this model see Dornbusch (1974).

2/ With the probable exception of unemployment, which is a direct determinant of household welfare. Of course, substitution for any of the direct determinants of household utility can put any variable in the utility function, but that does not make such a variable a legitimate target.

treating it as zero, the current account balance is then an endogenous variable representing, if positive, the amount of private saving lent to foreigners and, if negative, the amount of private investment financed from foreign saving. Except perhaps in the very long run with stable economic conditions, it is unlikely that nations would choose to forego the possibilities of such international trade in real capital. Few would suggest that such capital transfers should not take place within national boundaries, so the case to prevent or significantly limit them across boundaries is, at the very least, not obvious. 1/

Why then has the practice of treating the current account balance as a macro policy target arisen? One answer could be that while there is no intrinsic reason in the nature of this account, it may be that it can at times indicate problems elsewhere in the economy. There is also another possible answer. The notion of "external balance" is often used as if it were synonymous with the achievement of a current account target. However, if one takes external balance to mean "equilibrium" in the foreign exchange market the two are not the same. In a floating rate system the exchange rate moves to clear the market for foreign exchange. With pegged rates, movements in reserves of foreign exchange clear the market. Persistent falls or rises in reserves are the signal that exchange rates are set at "disequilibrium" levels and would seem to be the appropriate criterion of external imbalance or balance of payments disequilibrium. 2/

So the view that the current account balance should be a macro-economic target appears to arise from the experience of the post-war era of pegged exchange rates and imperfect capital mobility. This was a time when not only were exchange rates pegged, but also Europe had substantial physical capital requirements for post-war reconstruction and there were controls which limited international financial capital mobility. Needs for physical capital were manifested in current account deficits and if there were insufficient private financial capital inflow to finance these deficits the gap had to be filled by official borrowing or by running down reserves. If rates had floated, depreciation would have operated to match the current account deficit with the available capital inflow. Alternatively, if the situation were believed to be one of "fundamental" disequilibrium, the pegged rate could have been devalued. The other solution was to use macro policy to reduce the current account deficit, i.e. to target the current account. Even for the circumstances of the time this approach involved a very substantial problem, namely that the appropriate amount of capital importing was based not on the market outcome for the gap between investment

1/ That is not to say that foreign investment should be unrestricted. For instance, foreign investment in plants for the treatment of toxic wastes produced in the lending country or to store foreign nuclear waste would warrant close scrutiny. However, in general the onus would seem to be on those advocating limitations to establish their case.

2/ Excluding official foreign exchange transactions from the capital account allows the balance of payments to be in disequilibrium.

and saving when the economy was in internal balance, but policymakers views on what this "should" be. Even where capital flows are limited, it would seem preferable to treat this restraint as data and let the exchange rate adjust to bring about balance of payments equilibrium, so that the current account finds its own level.

There is little doubt that the view that the current account should be targeted stems from this experience of pegged rates and restricted international capital flows. However, for several reasons it is wrong, or at best misleading, to carry over this view to an era of international capital mobility and floating rates. First, while the current account was obviously an important element in the international post-war situation it is not clear that targeting it was the best way to cope with the problems of the time. Secondly, as noted earlier, in a floating rate regime, the balance of payments is cleared by movements in exchange rates. Finally, a target balance for the current account makes an implicit judgement about the appropriate level of net foreign investment. In particular, a zero current account target would imply a desire to eliminate foreign investment altogether. ^{1/} Although the subsequent analysis mainly assumes a flexible rate system, it applies equally to a pegged rate regime when allowance is made for a balance of payments target which is to be achieved by periodic exchange rate adjustments. The extreme case of a pegged rate system is one in which several countries or regions share a common currency. Non zero current account balances will, of course, exist. The balance of payments balance will be achieved by flows of securities and currency. If current account balances are recorded, their implication, if any, for policy would seem very indirect.

Hence, while there seems little, if any, justification for treating the current account as a conventional macro policy target, as mentioned before there may be a case for regarding it as a potential indicator of the existence of undesirable developments in an economy. This is the approach that will be investigated here. For instance, countries developing large deficits may have created distortions which have increased investment, while those which have generated large surpluses may have devised upward biases on saving. Alternatively, changes in their balances could merely reflect private sector responses to evolving economic conditions.

2. The current account in an ideal world

So if the current account balance has any special implications for policy it is because it is a reflection of conditions obtaining and events

^{1/} It is surprising how often policymakers are inconsistent on this issue, welcoming additional foreign investment on the one hand and calling for a reduction in the current account balance on the other! These positions are compatible only if they also urge domestic agents to lend abroad.

occurring throughout the economy. 1/ To elucidate the implications of this, the analysis begins with a consideration of the role of the current account in an ideal world where

- (i) markets work smoothly to allocate resources, with prices adjusting to clear markets,
- (ii) in particular, consumers and businesses make decisions involving future outcomes and actions on the basis of their preferences across time,
- (iii) there is no business cycle,
- (iv) unions and firms do not exercise monopoly power,
- (v) distortions due to externalities have been removed,
- (vi) distortions arising from government regulations have been minimized,
- (vii) fiscal deficits reflect "legitimate" borrowing needs of governments,
- (viii) there are no measurement problems to impede perception of the size of the current account balance and relevant magnitudes. 2/

Because, with the above conditions holding, private needs for investment in excess of saving and/or the public sector's decision to spend in excess of revenue are undistorted in every reasonable sense, there would not appear to be economic grounds for intervention to change market outcomes. However, there may be political and strategic arguments for limiting the composition and/or level of international lending. While these may be of the utmost importance in some instances and for some countries, the analysis here concentrates on economic issues.

The theory of foreign investment and saving usually assumes that most or all of conditions (i) to (viii) are satisfied. 3/ This analysis is a branch of growth theory where there are several countries and their agents make intertemporal choices which determine saving and investment. Economies are taken to be in internal balance, and real capital is mobile internationally, though adjustment costs will limit the rate at which capital can

1/ Of course, so is every other endogenous variable. Some of the others such as GDP and consumer prices are also used this way. This practice is legitimate if the endogenous variable can be shown to be a good indicator of aspects of the economy which reflect household welfare. The discipline of establishing this connection is often neglected in macroeconomics.

2/ It should be clear that the violation of any or a combination of these conditions does not imply that the resulting current account outcomes are intrinsically undesirable. Rather it follows that the current account outcome is that which is relevant to the circumstances and that it will change as undesirable features of the system are removed.

3/ See for example, MacDougall (1960); Bardhan (1967); Kemp (1962); Pitchford (1970); Webb (1970); and Blanchard and Fischer (1989).

be constructed. 1/ Thus profit rates can differ between countries for long periods of time 2/ and if any country is not in long-run equilibrium, 3/ capital will be accumulated or decumulated relative to labor and investment will differ from saving, so producing real capital flows and current account imbalances. In this framework saving, investment and current account imbalances can be justified as optimal.

It follows that movements in current account balances can also be regarded as desirable developments. In the context defined by (i) to (vii), fluctuations in saving and consumption can be shown to be optimal responses to shocks such as terms of trade shifts, policy switches and exogenous changes in productivity. 4/ For instance, one such reaction is to smooth consumption fluctuations relative to those of income. Thus a temporary fall in income, say due to a temporary worsening in the terms of trade, would be accompanied by a lesser fall in consumption. In short, the current account balance indicates only beneficial developments in the economy.

Turning to government borrowing and lending, assume that they produce products and services which cannot be supplied as cheaply by the private sector, if at all, and which are difficult to price. 5/ Presuming them to act to maximize some social welfare criterion over time, they would choose to collect taxes and make investment and consumption decisions accordingly. This need not preclude them from running fiscal deficits and surpluses from time to time.

It must follow that if external imbalances are ever unjustified, they must arise from the nonfulfillment of some of the first seven conditions set out above. This provides one way of classifying possible reasons for intervention in relation to the current account. However, it is not the only possible classification scheme. Because of the identity involving the current deficit, private investment, private saving and the fiscal deficit there must be distortions of one type or another to private saving, private

1/ That is there are no impediments to saving flows between countries.

2/ If the conditions for factor price equalization are satisfied, trade will result in the equalization of profit rates across countries. To avoid this it is necessary to make the assumption that there are fixed factors of production such as natural resources, rather than working in the world of two factors, capital and labor, with constant returns to scale.

3/ Long-run equilibrium usually requires that the rate of profit net of the population growth rate (to allow for capital widening) and net of the discount rate (to allow for the lower value attached to future utility) is zero. Countries may be net creditors or debtors indefinitely.

4/ See, for instance, Sachs (1982); Svensson and Razin (1983); Obstfeldt (1981); and Pitchford (1990).

5/ An example of such a service is the provision of defence equipment. This activity could give rise to an optimal policy of government borrowing if because of the durability the equipment, its services will be available to future generations.

investment or the fiscal deficit to justify a policy response. Further, as the deficit is also equal to imports less exports less net income from net foreign assets, it would in theory be possible to trace the reasons for inappropriate imbalances by basing a classification on this side of the identity. An exhaustive, and possibly also exhausting, analysis would pursue the issue explicitly through all three classification schemes. Perhaps it is sufficient for present purposes to bear in mind both the saving/investment and the trade/net income implications when working through these issues.

3. Potential sources of current account problems

The conditions for an ideal world are now relaxed so as to examine possible problems arising from international trade in saving and investment.

a. The working of markets

At this point it is being postulated that there is no business cycle so that some of the major reasons for economic intervention are assumed away. This makes it possible to concentrate on those market failures which might affect the current account fairly directly.

If markets do not work efficiently to allocate resources involved in trade, or if they produce distortions in investment and saving patterns, there may be scope for micro or even macro intervention to change the current account outcome. That said, it is by no means clear that intervention will necessarily achieve a result superior to that of inefficient markets. In approaching this question it should first be recognized that the subject of macroeconomics exists essentially because there are thought to be impediments to the free working of markets. One of the major issues in economics is the distinction between how markets are conventionally supposed to work in macro and microeconomic analysis. On the one hand there is the view of microeconomics that, aside from inappropriate government regulations and in the absence of externalities, markets operate efficiently to achieve an optimal allocation of resources. On the other hand, many macro theories explicitly or implicitly assume that markets do not bring about appropriate solutions or responses to shocks. At an extreme end of this view is the aggregative Keynesian model without relative prices to do any adjusting. More realistic are the analyses of constrained equilibrium of markets which may not clear because of inadequate price flexibility. ^{1/}

There would be broad agreement that if for any reason the economy departs from some notion of internal balance that is both desirable and feasible, macroeconomic policies are necessary to restore it. Can the same be said for some concept of current account balance? That is, are the workings of the markets which deal with international trade, finance, and exchange rates (or alternatively, investment and saving) liable to be so

^{1/} See, for example Barro and Grossman (1971).

inefficient that macroeconomic intervention to correct current account outcomes is required? Consider some of the various suggestions which have appeared in the literature about this question. To start with, the extreme Keynesian model presents a view of the economy reacting in a mechanistic fashion with little in the way of optimizing decisions. If this were a good description of reality, private sector current account outcomes could lead to accumulation of debt or assets which could be disastrous. Few these days would feel that private sector decisions were so innocent of economic considerations. In particular, the decision to borrow must be made jointly with decisions in relation to the spending which that borrowing is to finance. However, many of the macro models of economic management involving targets (in particular the current account) and instruments also pay scant or no attention to these intertemporal decision making processes. This issue will be considered further under the topic of excess demand.

Another example is the issue of "elasticity pessimism" with which some view the current account question. If trade elasticities are low, a devaluation may have little effect in reducing a current account deficit or may even increase it. By some this is taken as evidence of failure of the price mechanism and hence of the need to control the current account outcome. ^{1/} Yet if these responses are regarded as arising from decisions about the best way to react to price changes, they are part of a process of optimal adjustment. When economies do not respond the way economists' models predict, there is scope for asking what is wrong with the models as well as what is wrong with the economy.

Another area where fears have been expressed about market outcomes is that of the workings of financial and foreign exchange markets. It has been argued that foreign exchange markets may not deliver "correct" solutions and hence exchange rates may not reflect "fundamentals", with the consequence that the resulting current account and foreign debt outcomes may not be socially desirable. A closely related set of arguments can be made with respect to financial markets generally. If these deliver interest rates, lending policies and attitudes to risk which are thought to be non-optimal, again the resulting current account and foreign debt are also non-optimal. Because the financial markets deal with debt and credit aggregates they are most conveniently treated in the later discussion of net foreign indebtedness.

There are two main ways in which it could be claimed that foreign exchange markets fail. The first is that they produce nominal rates which are "too volatile" and the other is that they set rates at the "wrong" level. One view on this has been put by Williamson (1983, 1989). While he refers to the volatility of exchange rates he does not regard this as the major problem. Rather, he argues that real exchange rates can be "misaligned", departing from some long-run "fundamental equilibrium" values. Given internal balance, this fundamental equilibrium real exchange rate

^{1/} References Kindleberger (1963, p. 595), Pitchford (1991).

(FEER) is that which would be determined by private saving and investment relationships, that is the net capital importing needs of the economy. He has suggested targeting this real exchange rate, hence targeting the longer run equilibrium current account balance. Judging from the examples he gives about misalignments and their costs, market exchange rates differ from FEER for two main reasons, namely because of short-run disturbances and also as a result of policy decisions, such as those involving the size of the U.S. budget deficit or the pegging of nominal exchange rates at levels which are over-valued. The idea of targeting the real exchange rate gets close to suggesting that the current account is being targeted. However, the proposition that the real exchange rate would be targeted so as to make it vary with "fundamentals" implies that this need not be the type of policy which judges that current account deficits should be reduced in all circumstances.

The scheme would depend critically on being able to identify the FEER. "At best, estimates of the FEER require judgments that in practice contain subjective elements regarding cyclical adjustment, the underlying capital flow, and trade elasticities. At worst, skeptics deny any hope of identifying the fundamental equilibrium rate" Williamson (1983). This list of determinants of the FEER is incomplete, because it does not refer to those elements of policy which are supposed to cause misalignments. I would certainly be among the skeptics on this issue, particularly with respect to being able to predict the extent and nature of the factors which affect capital importing in a changing world. The current account balance is the simultaneous outcome of trade flows depending on the many price and income variables, private saving and investment decisions, budget decisions (possibly local, state, and central) and the financing effects of net international capital flows. Not only would it be necessary to foresee the correct "fundamental" values of the exogenous variables which affect the trade, expenditure and financing aspects of the external accounts, but to achieve desired results a reliable knowledge of how they interact with requisite endogenous variables (including the many key relative prices which in reality constitute a real rate exchange vector) would be necessary.

Aside from the difficulties involved in the task of knowing better than the market how the economy should behave, Williamson also wishes to set targets which in some way are supposed to compensate for what are seen as faulty economic policies. Take the U.S. budget deficit for example. Economists rightly point to the potential this has had for imposing costs on present and future generations. Williamson would attempt to engineer an outcome for the real fundamental equilibrium exchange rate and so the current account that disregarded the move into fiscal deficit. He would not accommodate the budget deficit in his plans, so the rate is to be set as if the deficit did not exist. Is this the best way to operate in the circumstances? Would it not be preferable to ask what is the best setting for available policy instruments, given the fact that the deficit exists?

Surely the answer is unlikely to be one which ignored the deficit? ^{1/} And who is to be the arbiter of such decisions? Williamson's own approach to targeting the real exchange rate illustrates one of its main dangers, namely that such an exercise can enshrine objectives which may not necessarily be socially desirable. To summarize, Williamson's proposed targeting of the real exchange rate and so the current account would seem to be reasonably flexible and without the prejudgment that current imbalances are necessarily bad. However, the practical difficulties of knowing what the current account "should be" and the implicit, rather than explicit agenda of reshaping outcomes would seem to argue against it.

The volatility, or as he would describe it, instability, of foreign exchange markets has been emphasized by Krugman (1989, page 39). "Over the past few years, and especially since the dollar began declining, we have imperceptibly become accustomed to living in a world in which exchange rates move by large amounts but the changes have only small effects on anything else." This delinking of exchange rates from real variables occurs, he argues, because firms adjust pricing policy to suit that of the importing countries' markets. Because exporting firms sink costs into entering foreign markets he argues that they are stuck with prices which do not reflect exchange rate fluctuations and even, for a time, exchange rate trends. The foreign exchange market "fails to recognize short-term trends, so that its forecast errors are serially correlated, and it loses sight of long-run equilibrium, so that it runs away in temporary speculative bubbles" (page 95). Because of these problems he advocates "an eventual return to a system of more or less fixed rates subject to discretionary adjustment" (page 99).

Several of his judgements are open to dispute. For instance, exporters pricing on the basis of conditions in foreign markets would seem to be making a rational adjustment to the market structure of their customers. On the other hand, for some commodities relative demands and supplies ensure that many importing countries face prices determined abroad. The supposed delinking of the real economy would seem to be an optimal adjustment to the reality of market conditions and perhaps also to nominal exchange rate variability. Further, while pegging rates disposes of short-term volatility, this would not necessarily deal with the forces which produce it? Do they then emerge as fluctuations in interest rates? Whether or not one agrees with his analysis and its conclusions, the nature of his suggested solution, namely searching for the best institutional arrangement to cope with the presumed problems, appears to be a preferable procedure to those which would require the imposition of target values of economic variables.

^{1/} An analogy is the desire, in the presence of high union wage demands, to set unemployment at some rate which avoids their influence. However, as wage outcomes affect the natural rate there may be no macro policy that avoids the consequences for unemployment of wage demands without significant effects on inflation.

Weale and others (1989, page 16) argue for targeting national wealth in addition to short-run macro targets. "... we have confined our analysis to a single form of wealth target, namely a suitably defined path for the total real stock of the country's wealth. Otherwise it becomes all too easy ... to combine full employment with uninflated prices by means of a lax fiscal policy. ... The resources for an excessively high level of consumption are offset by the deficient expenditure on capital projects" (page 14). Inasmuch as this requires a particular level of private investment, given private saving, it amounts to a current account target. Such a target would seem to be subject to the same objection which can be made to the Williamson proposal, namely that setting such targets requires the solution of the most fundamental problems which the private sector faces. Mistakes would be made and could be disastrous. Surely it would be preferable to tackle the lax fiscal policy at its source.

In two papers written with co-authors, Gruen (1989, 1990) is concerned about the possible inefficiency of the Australian foreign exchange market, which he feels has not delivered the large devaluation which he believes is necessary over the medium term to stabilize the ratio of net external assets to GDP. ^{1/} "Since late 85, all our evidence is that the risk premium has been much too small to explain the short-term real interest differential between Australia and the US" (Smith and Gruen, 1989, page 2). The exchange risk referred to is calculated on the basis of experienced variability in the exchange rate and survey material of market expectations.

In a subsequent paper (1991) he claims that the distorting effects of the tax treatment of interest in Australia have accounted for the claimed overvaluation of the exchange rate. Short term pretax real interest rates in Australia, he estimates, have averaged 2.5 percentage points above comparable rates abroad for over six years. As he believes the Australian dollar risk premium has been small, the market must have been continually expecting a large depreciation of the Australian dollar. With an inherited high domestic inflation rate, he argues that the monetary authorities find it necessary to maintain high domestic short-term real pretax interest rates to keep the inflation rate from increasing as a consequence of domestic excess demand. Helping to force up the nominal rate is the practice (common to most countries) of not allowing the deduction of the inflation component from interest receipts and not requiring its deduction from interest costs for tax purposes. Domestic lenders will receive a nominal interest return high enough to compensate them for being taxed on their full nominal receipts. Similarly, domestic borrowers will be willing to pay these rates because they can deduct the full nominal value of their interest costs when calculating their taxable income. On the other hand foreigners will find these high nominal rates attractive even with the risk of substantial depreciation. The capital inflow this induces will appreciate the exchange rate and raise the size of the current account deficit. However, his

^{1/} See Smith and Gruen (1989); and Alesina, Gruen, and Jones (1990).

solution would certainly not be to target the current account with monetary or fiscal policy, but to reduce the inflation rate and/or reform the nominal tax system.

In summary, if, in respect of an economy which is in internal balance and without major market distortions, there is faith that businesses and households are capable of making optimal saving and investment decisions on the basis of available information, there would seem to be no grounds for intervening to affect current account outcomes, though there may be grounds for improving the efficiency of markets. 1/ For those without this faith, the alternative is to intervene at a macro and/or micro level because of the view that markets cannot work efficiently so that households and firms cannot make sound decisions about the future. In the extreme case, this would mean macro or micro policy to substantially modify private sector investment and saving plans. 2/ In all of this it should not be forgotten that markets work in an institutional environment set by the laws and regulations of society. Even after "deregulation" money and financial markets are still liable to be substantially regulated, particularly where there are public guarantees of bank deposits. For such markets there is always a question of the optimal degree of regulation.

b. Intertemporal decisions

Suppose now that markets work reasonably well, at least when there is internal balance. Intertemporal decisions are at the essence of the current account and balance of payments constraint. Is there scope for the private sector to make intertemporal decisions which are socially non-optimal?

Arguments for greater saving are often based on the view that private agents undervalue future consumption and/or make "too little" provision for their heirs. Notice that if this were true across a range of countries it would not necessarily mean that current account deficits would be lower, as saving would be decreased in surplus as well as deficit countries. Further, lower discount rates could well mean higher investment. But why should private households' valuation of their future consumption or that of their

1/ Before the financial deregulation of the eighties, it could be said that a lack of ready access to financial markets was a problem for some economic agents. However, the remedy chosen was not to intervene to affect current account outcomes, but to reform financial markets.

2/ One argument that has been made for this is based on policymakers' supposed superior knowledge of the behavior and working of the economy. However, if it is only a question of knowledge, this can always be made available to the public so that again markets can be left to work out solutions.

heirs be regarded as too low. 1/ To give a convincing answer for higher saving it would be necessary to make a case which demonstrated the government's role to protect future generations.

For example, it is certainly possible that the private sector may choose to place such a small value on the consumption of heirs that their bequests to future generations mean a significant decline in future living standards. For instance, one way of looking at the debate about environmental issues is that we value the welfare of our heirs so much less than our own that we (indirectly) plan to leave them a degraded environment. 2/ In such circumstances many would see the government as having the role of representing the interests of future generations in the conservation of resources. However, this role is likely to be one of identifying and remedying externalities in resource use, rather than a question of differing valuations of future consumption.

But if it were solely a matter of a difference in opinion about discount rates, basing saving policy on discount rates that are lower than in the private sector would result in intergenerational transfers which are forced on present generations. Individuals in future generations will inherit a higher capital stock, but present generations are going to be made worse off. Basically this amounts to assuming that governments know better than the private sector what intergenerational transfers there should be. This theme has had many adherents. Combined with the assumed superior knowledge of where saving should be invested, it was the basis of many Eastern bloc economic plans. In this context its results cannot be regarded as successful. But it is also applied in Western economies. In the medium run, faster growth can be achieved by higher saving so it is tempting for those with a vision of their country's future to wish to manipulate an increase in saving. 3/ It is one thing to argue for reduced distortions from regulations and externalities where these can be clearly identified. Beyond this, government action to raise saving involves value judgements

1/ In considering this issue it should be distinguished from the question of whether the social rate of discount should be different from the rate used by the private sector. Some have argued that the discount rate for evaluating public investment projects should be zero, because governments should give equal weight to all generations, whilst others claim it should bear a close relationship to that used for evaluating projects in the private sector.

2/ Perhaps a more plausible view is that many environmental issues involve externalities which when taken with the mixed motives of governments and the difficulty of physical and economic control could mean a degraded environment for our heirs.

3/ It is often implicit in these kinds of economic analysis that saving is a better use of income and investment a better use of output than consumption.

which not all might share. Notice that at this stage in the analysis it is assumed that there are neither externalities nor distorting government regulations to justify pressure for increased saving.

A further argument to support the case for intervention in intertemporal choices has to do with belief that investment may be going into the "wrong" sectors. One basis for this view is that the foreign exchange markets are delivering the "wrong" exchange rate, but this particular reason for intervening has already been discussed under an earlier heading. It is often claimed that when a country has a large current account deficit it is incorrect for it to be investing at all heavily in the nontraded goods sector, in general, and in housing in particular. This claim seems to be more relevant to regimes of pegged and overvalued exchange rates and controls on international capital flows. In such a context there will be times when foreign exchange can be regarded as being in some sense in short supply, so that investment needs redirection in order for it to be nearer its undistorted level. This argument would not hold in a floating rate/mobile capital context.

Another idea behind the view that the investment balance favors non-traded goods would seem to be the undeniably correct proposition that at some point in the future deficit countries must move toward balance, so that eventually an expansion of the traded goods sector will be needed. 1/ Precisely when this move should take place is a question of the stage of development which has been reached and, being a matter of private sector requirements, is going to be very difficult or perhaps impossible to predict. From a situation of balance, a capital importing country will require an appreciation of the real exchange rate to produce the necessary current account deficit. Subsequently, when capital needs and domestic saving imply that a reduced deficit is appropriate, real exchange rate depreciation would seem necessary. Unless it can be shown that there are distortions toward investment in nontraded goods, it must be assumed that the investment phase of development is favoring that sector, whether traded or nontraded, which has the higher expected rate of profit. 2/

Of course, a preponderance of investment in any particular sector, other things being equal, is liable eventually to reduce the rate of profit in and the relative price of the output of that sector, hence making for relatively more investment in other sectors. An adjustment mechanism such as this, together with pressures on the nominal exchange rate, should be part of the process by which an eventual move to long-run balance could take

1/ In long-run equilibrium, for net debtors the ratio of the trade deficit to GDP must equal the growth rate of GDP less the interest rate. In the very long run if GDP growth is zero, they must run a surplus on the trade account and net creditors a deficit.

2/ Many countries do have tax and other regulations which favor investment in private housing. The sense in which this situation involves a distortion is discussed in section 3.f.

place. In short, it would seem extremely improbable that the timing of this process could be easily predicted, particularly if, as is likely, it is interrupted by a series of unforeseen disturbances. Thus, in the absence of excess demand or distortions, the private sector outcome would seem preferable to an attempt to devise policies which impose a bureaucratic view of what the sectoral composition of investment should be.

c. Excess demand and the trade cycle

The term "excess demand" will be used as a generic description of states of disequilibrium in product and factor markets which include low unemployment, inflation, trade cycle upswings, etc. As was noted, such occurrences are probably a violation of condition (i) in that markets are not clearing. Whatever the causes, economies do appear to depart significantly and frequently from equilibrium defined by a natural rate of unemployment of labor and other resources associated with a zero inflation rate. Macroeconomic management is largely about attempting to reduce or eliminate those departures. The connection between aggregate demand disequilibrium and current account deficits need not be simple. 1/ Nevertheless, because higher than equilibrium levels of activity are often associated with greater than normal investment and consumption, it is frequently argued that excess demand can result in higher than equilibrium deficits and lower surpluses. For example, this is the prediction of the traded/non-traded goods model on which notions of internal and external balance are based. 2/ Hence, for purposes of discussion, assume that there is a positively signed relationship between the size of excess of demand for domestic output and the size of the current account deficit.

Given this assumption, current account deficits and surpluses will be lower the more successful is policy in offsetting departures from internal balance involving excess demand and supply. As this is an important objective of macroeconomic policy, an incidental result of pursuing that aim is to reduce the consequential swings in the current account deficit. Notice that this association works in both phases of the cycle. Hence, in a recession, policy which revives demand will raise deficits and reduce surpluses. When a boom is brought under control so that excess demand is zero and the inflation rate is at an acceptable level, there may remain a deficit on the current account. Further macro policy action to reduce the current account deficit could be defended only if a case could be made that it was justified by factors other than excess demand.

1/ Thus the trade balance of the current account depends on prices as well as expenditure variables and the net income item on the history of the current account deficit.

2/ The mechanism producing this result is that imports vary positively with total expenditure. However, the relationship assumes that the country concerned is experiencing a boom independently of what is happening abroad. A world-wide boom could be expected to increase exports as well imports with an uncertain effect on the trade balance.

The occurrence of excess demand suggests some form of price inflexibility. 1/ It has been argued that if macro policies are needed to bring about internal balance in the absence of price adjustments, perhaps they are also necessary to establish "equilibrium" of the current account. There are at least two dubious aspects to this proposition. First, there is no obvious way to specify a current account equilibrium. Secondly, do there need to be separate policies, apart from those involved in the internal balance target, to combat the effects price rigidity might have on the current account balance? Consider the first issue. What can be meant by an external balance target applied, not to the balance of payments with pegged rates, but to the current account? Excess demand, inflation, and unemployment are targeted because they have clear adverse effects on the welfare of consumers. This is not the case for the current account balance as it does not enter household welfare in any direct way. Those who wish to use this argument have to establish how goods or factor price inflexibility lead to undesirable current account outcomes. Because the current account is an endogenous variable likely to move in response to short- and long-run exogenous changes, there is no single equilibrium level, nor any easily described equilibrium path, except in the very long run when all saving/investment adjustments have been made. As has been argued, the optimal amount of foreign investment at any time is not something which policy makers should expect to be able to calculate. To hold the view that they should, is implicitly to claim to be able to perceive better than private sector agents what they should be saving and investing.

The second point involves the argument that if internal balance requires macro policy, current account balance also needs such policies because of disequilibrium in the markets which involve international trade. Inflexibilities which cause disequilibrium also exist in traded goods markets. One view of the way macro policy works is that it provides nominal price movements which offset rigidities in labor markets. 2/ To the extent that pursuit of internal balance does this, it will take care of disequilibrium in all the markets which domestic policy can affect. To argue that there is a further role for external balance is to overlook what is involved in the pursuit of the internal balance target. Many of the prices and markets which affect the current account will be beyond the influence of the home country's policies, so nothing can be done to affect any disequilibrium they may exhibit.

1/ It is possible for an economy to experience both market clearing and rising prices, or market clearing while operating at a level of activity which is not sustainable.

2/ Thus if money wages are not completely flexible, the real wage can be reduced by a monetary expansion that raises prices. The constrained equilibrium approach to macroeconomics allows for a type of unemployment (Keynesian unemployment) which may not involve an excessive real wage. However, its existence depends on price and wage rigidities and it can be reduced by macroeconomic policies.

It has been assumed that there is a direct relationship between the size of excess demand and the current account balance and hence between macro policy settings and the current account. However, connections between macro policy instruments and the current account outcome are not necessarily so straightforward. The Mundell/Fleming analysis and its extensions demonstrate how complex the issue of possible connections may be. 1/ For instance, one important question in the Australian debate has been the way in which monetary policy affects the current account balance. For monetary policy to have a short-run impact on real variables there must be some form of nominal rigidity and one way to get this is to assume that wages are indexed partially to prices. In a flexible rate system, tighter monetary policy is liable to appreciate the nominal and real exchange rate and reduce expenditure and output. These two effects work in opposite directions on the trade balance and hence on the current account. Nevertheless, as shown in the Appendix, the ambiguity can be resolved and the result established that the current account balance "worsens" provided the Marshall/Lerner condition is satisfied. Hence, contrary to the earlier assumption, this particular measure to reduce domestic activity need not also "improve" the current account. 2/ In the pegged rate case with perfect capital mobility the money supply is endogenous so there is no scope for independent monetary policy.

In the discussion of the remaining points it will be assumed, unless otherwise stated, that internal balance holds.

d. Monopoly power

The way in which product market monopolies are liable to affect the current account balance does not seem to have been a topic to attract much discussion. Government business enterprise monopolies are treated in section 3.f and it is possible that the presence of multinationals could influence a country's current account outcome. The main interest, therefore, is in the question of how union behavior and attempts to offset its effects on wages and unemployment may modify the external accounts. Wage systems, industrial relations, the strength and behavior of unions and the nature of wage policies can affect labor markets in a large variety of ways. It is not inevitable that reform of labor market practices will produce a tendency for real wages to fall. For instance, it could be that the removal of distortions which results in a better allocation of labor could require some wages to rise. Despite this it will be assumed that a successful labor market reform is one which lowers real wage costs. Thus countries with strong unions and ineffective wage policies are taken to have higher real wages than if their unions were weaker or their wage policies

1/ See Bruce and Purvis (1989).

2/ Two important qualifications are that imperfect capital mobility would mean that tighter monetary policy raised the interest rates and so reduces investment and that if investment is a function of profits, the tighter monetary policy may reduce profit and so investment.

more adequate. Can some part of the deficit of these countries be ascribed to their labor market problems? The issue then is whether lower real wages will result in reduced current account deficits.

The short-run effects of an exogenous fall in real wages can be examined in the context of standard macroeconomic analysis. Assume the exchange rate is flexible and capital is perfectly mobile. In a Mundell/Fleming model extended to incorporate partial or full indexation, a fall in real wages will raise employment and output and depreciate the real exchange rate (relative price of imported to domestic goods). Assuming the Marshall/Lerner condition is satisfied, the real depreciation will reduce any current account deficit. However, the demand effect of the rise in output will, of itself, result in an increased deficit. Nevertheless, in the Appendix it is shown that the net result is that the current account deficit will fall. The pegged exchange rate case of the Mundell/Fleming model for partial indexation, is also set out in the Appendix. Reduced real wage claims result in a rightward shift in the supply of output at each level of the money supply and as in the flexible rate case lead to a reduced current account deficit.

Several qualifications which take account of matters going beyond the assumptions of the model must be made. With lower unemployment, tax collections will be higher and expenditure on unemployment benefits may be lower so, other things being equal, the fiscal deficit and hence the current account deficit are both reduced. In addition, wage restraint redistributes income from wages to profits so that if profit earners' marginal propensity to spend is less than that of wage earners, spending falls. However, to the extent that investment depends on profits, wage restraint may raise investment and so increase the deficit on the current account. Further, increases in output may well require imported materials which again tends to raise the deficit. In the Appendix it is also noted that the analysis of the short-run real effects of monetary expansion and those of nominal wage reduction are formally identical. ^{1/} Hence, doubts about the Mundell/Fleming results for the effect of a monetary contraction on the current account deficit also extend to the case of a reduction in wages.

There is also the question of the way in which the relative labor intensity of different sectors will be critical for the wage restraint issue. Reductions in real wages will tend to lead to substitution of labor for other factors of production. If traded goods industries are relatively intensive users of labor this will tend to expand their output. However, it is by no means the case that the relative intensity of factor use in the traded goods sector will be such as always to lead to this result. Clearly,

^{1/} This is an application of Tobin's (1972) 'true quantity theory'. That is, in the absence of money illusion, namely in models where the dependence of real variables on nominal variables always takes the form of a dependence on ratios of nominal variables, a given proportionate increase in all exogenous nominal variables leaves all real variables unchanged.

cases can be constructed in which the effects could go either way. Indeed, as services are often a significant part of the nontraded industries, this sector may be the more labor intensive.

Hence, there can be little certainty about the direction of effect of wage restraint. In any event, the case for reform of a wage systems should be tied to the performance of the labor market not the current account deficit. Any resulting change in the current account deficit, whether fall or rise, is only a secondary consequence of this. Moreover, although macroeconomic policy can often be thought of as necessary because it offsets wage rigidities, the extent of such policy is exhausted when internal balance is obtained.

e. Externalities

Because the current account deficit is an endogenous entity, in principle the discussion should range over all possible externalities in the economic system! As this is neither manageable nor liable to be fruitful, the alternative is to consider those externalities which are close to the borrowing/lending, saving, investment, and international trading processes. A number of these involve the level of debt in a significant way and so are treated in section III, part 3. As well, some saving/investment questions were considered earlier in the discussion of intertemporal issues. One potential source of externalities comes from the possibility that the cost of foreign borrowing depends positively on the size of a country's foreign debt. If this were the case, any additional borrowing forces up the cost of existing loans and this effect is sometimes regarded as an externality. The discussion of this possibility is left to the section on foreign indebtedness. Here attention is confined to a suggested class of externalities, which I call "relative price effects".

An example will illustrate the nature of the candidate externalities. Suppose substantial investment takes place in agriculture. The increased supply of agricultural products and so the consequent fall in their relative price is not foreseen by atomistic investors. Their investment would have been lower had they been aware that their collective but uncoordinated actions would bring about a fall in the prices of their products. The investors involved are not using rational expectations in that they fail to use current developments and knowledge of the underlying economic structure to forecast future trends. Is this an externality? Following Arrow, externalities exist if there are missing markets. Is there a missing market in information processing? Is it possible that the difficulties of internalizing the returns to this sort of information accounts for the missing market? After all, it was said in section II.3.c that something like this phenomenon is thought to occur in a boom when excessive investment is claimed to arise. The trouble is that the same type of contention could be made for almost every occurrence which is liable to produce relative price changes. Indeed, every major development in an economy would be a possible source of such candidate externalities. One remedy is to attempt to provide information about the future effects of present trends, rather

than to impose a particular level of investment on agriculture. If this type of failure of markets to make correct forecasts leads to excess demand or supply, it will be dealt with at a macro level by attempts to achieve internal balance. In short, there is no special role which the current account would play in either the identification or remedy of such mistaken forecasting.

f. Government regulations

Government institutions and regulations are a significant source of influences on private saving, investment, and trade and hence on the current account. Some of the many areas of potentially important effects are through tax arrangements; pension schemes; health systems; tariffs, subsidies and quantitative restraints on imports; promotions of import competing products; export subsidies and promotion schemes; public business enterprises; government procurement practices; and regulations on financial markets and international capital flows. ^{1/} There is little doubt that these factors will have a distorting effect on private saving, investment, and trade. The question at issue is what, if anything, should be done to offset the effects of these government measures (on the economy, in general, and the current account, in particular) when they create considerable distortions? It will be argued that the action taken should depend on the nature of the effects and on the value of the regulations.

Some government institutions and regulations may be judged to be providing a worthwhile service to society, even though their effects on saving and investment may not be neutral. Again, some of the effects that worthwhile institutions may have on the factors immediately affecting the current account balance may be relatively easily avoided, while other effects can be offset only at such high cost that they are effectively jointly supplied with the service provided. Then again, other government institutions may be thought of as in need of significant change or even abolition. Some examples will illustrate these classifications and the issues they raise for policy which affects the current account outcome.

(1) Avoidable effects

Tax systems which tax nominal income can be shown to lack neutrality with respect to inflation. The survey of the costs of inflation by Fischer and Modigliani (1978) stressed that such tax distortions could be a major cause of the costs of inflation. For instance, the failure for tax purposes to inflation-proof interest as both income and cost appears prima facie to allow inflation to distort saving downwards and investment upward. Nominal features in a tax system would thus seem to have the effect of increasing the size of the current account deficit. While there are always practical difficulties in devising tax reforms and political difficulties

^{1/} Note that the effects of the overall size of the fiscal deficit are the subject of the next section and are thus not at issue here.

implementing them, it would seem possible to find a feasible way of inflation-proofing interest as a receipt and a cost as well as other nominal aspects of tax systems. This would appear to be an appropriate remedy where inflation has not been eliminated.

(2) Unavoidable effects

Tax systems are often made progressive in the interest of a policy of greater equality of income. The effects this would have on consumption and saving are surely intended effects and at least in this sense are unavoidable. However, as it is likely that a redistribution from higher to lower income earners reduces private saving, the current account deficit is liable to rise. Should there be action to offset this effect? It would not seem appropriate because the egalitarian policy has been made part of the structure of society. The saving, investment, and current account outcomes arise from private sector choices which take into account the effects of the redistribution.

Another example is government policies whose intention is to favor investment in private housing. This distorts investment in a particular direction and may raise investment generally and so perhaps the current account deficit. As long as the policy continues to have political backing these are unavoidable effects whose consequences are part of the social and economic structure. To make the policy effective there must be greater investment in housing, so this is an unavoidable effect of the program. Similarly, social security and pension schemes are often liable to reduce saving. If it is thought that this is an unintended consequence, the appropriate response is to rethink the social and economic purposes of the program. Depending upon the nature of these aims, in some cases these effects may be regarded as avoidable and in others unavoidable. Of course, economists have a responsibility to point out the cost of such schemes for those who end up financing them, as well as their effects on excess demand.

Where the influence of government institutions on the current account outcome are a significant and direct result of their intended impact on the economy it would seem incorrect to choose to offset it. By contrast, the non-neutral behavior of a tax system in the presence of inflation is an unintended and avoidable outcome. It follows then that when avoidable non-neutral effects are not present or have been reduced as far as is feasible, no further action with respect to the current account or the factors which determine it is necessary. The measure concerned is part of the institutions of society which form a background for private sector decisions.

(3) Outmoded institutions

Obviously, public institutions which have come to be considered irrelevant or inappropriate should be changed. Government ownership and operation of many types of business are currently thought to be less efficient than private ownership. This does not by any means imply that

privatization inevitably leads to a reduction in the current account deficit. Indeed, it may often be the case that moving public business to the private sector may cause them to expand and so invest more, so other things being equal, this will raise the current account deficit. Should this lead to action to offset the current account effect? Recalling the assumption that the economy remains in internal balance, this private sector investment will be aimed at taking advantage of profit opportunities so should not be restrained. If a program of privatization produces such an increase in investment that excess demand develops, naturally policies to restore internal balance are appropriate.

Another development in recent years has been the widespread move to financial liberalization in which restrictions on the operation of financial markets have been eased in many countries. To the extent that this raises the international mobility of financial capital it is liable to increase both international borrowing and lending and so is likely to have an impact on current account deficits and surpluses. The way it affects current account balances will depend on the types of restrictions which were previously in place. It is not certain that current account deficits and surpluses would rise. Presumably, the move to freer capital markets has been intended to make the transfer of funds between lenders and borrowers more efficient and if this works it could raise both saving and investment by lowering transactions costs to both groups. With both saving and investment rising in a particular country or in the world as a whole, the outcome for the current account is uncertain. On the other hand, if regulations had made access to finance difficult for consumers, saving could fall and the current account deficit rise. If it did, it would be a direct result of the move to improve the efficiency of financial markets. The consequential changes in private decisions should not invite intervention unless excess demand were to develop, or it were found that the measures reduced rather than increased market efficiency.

Another issue which can lead to reversal of previous public decisions involves the possibility that a social program may prove more expensive than was intended or than currently seems affordable. For instance, a government might introduce a national compensation scheme which when put into practice turns out to have an unacceptably high cost. The cost/benefit calculations on which the scheme was judged would need to be reworked and this would lead to its moderation or elimination. As a result there may be less public spending and, while taxes remain the same, there is a presumption that any current account deficit would be reduced. The reduction in the deficit on current account is a consequential outcome of a needed revision of the government program. Had the scheme involved acceptable costs there would have been no case for reducing the deficit.

What about the situation in which there are undesirable regulations which may affect current account outcomes, but because of political inertia these regulations are unlikely to be changed, at least in the near future? It has been argued that the existence of such problems justifies macro

intervention to affect current account outcomes. 1/ Again consider the example of avoidable tax distortions (which nevertheless are not likely to be changed) which lead to reduced saving and a higher current account deficit. First, if the distortions arise from inflation this can be an additional argument for action to reduce the inflation rate, but any effects on the current account balance are consequential. Again the remedy is to seek internal balance. But what if the pursuit of internal balance would not remove the distortion? The relevant question is what is the best policy given the immovable problem? It is unlikely to be macro policy. Macro policy aimed directly at the current account will work through restraining demand for imports and import-competing products and through reducing the level of investment. It will almost certainly also reduce output and have other undesirable consequences, for instance on unemployment and bankruptcy rates. It would be necessary to decide whether these costs justify the reduction in the current account deficit. These additional effects of macro restraint may well lead to reduced welfare. It is most unlikely that macro policies which mimic the results of microeconomic reform exist. A further problem of such substitute policies is that they can prolong the possibility of basic reform.

g. Fiscal policy and the fiscal deficit

Because of the strong political aspects of government fiscal activities it is likely that there will be debate over the principles which should determine optimal government borrowing and lending. However, for present purposes, it is only necessary to assume that some fairly general principles exist. Thus, it is not inevitably true that the optimal fiscal deficit is zero, even in the longer run. Questions of intergenerational equity should perhaps be important in determining the structure of tax collections over time and for government trading enterprises, borrowing and lending issues similar to those affecting private firms will often be relevant. Further, if fiscal policy is regarded as one of the instruments of short-run macro policy, the fiscal deficit may be required to vary over the cycle and with exogenous shocks. 2/

If the public and the private deficit were unrelated, a change in the fiscal deficit would be fully reflected in a change in the current account balance. This would be an extreme case of the "twin deficits" approach to the current account. The Ricardian Equivalence proposition casts doubts on the connection between changes in fiscal and current account deficits. Suppose the fiscal deficit were reduced by increasing taxes. If the private sector saw this move as a reduction in its future tax liabilities it could reduce saving, thus offsetting the reduction in the current account deficit. In the extreme case this offset could be complete. It is not necessary to

1/ See Moore (1989); and Pitchford (1989).

2/ Although it would be possible to conduct fiscal policy with a balanced budget, this would reduce the effects of automatic stabilizers and could be cumbersome.

subscribe to Ricardian Equivalence to see possibilities for connections between the two deficits which constitute the current account. Thus, both private and public deficits have considerable endogenous elements which will mean that their observed movements may be related through third variables. Targeting the current account through the fiscal deficit may not have the expected result.

Because of the political problems associated with increasing taxes, budget balances will frequently be at levels which are thought inappropriate to economic needs. The problem can be dealt with directly through budgetary measures, but what if for political reasons fiscal deficits remain at such levels? Presumably, they then become part of the economic environment, albeit an undesirable one, justified temporarily by the political constraints and the private sector must adapt to this. As argued earlier in relation to the Williamson (1983, 1989) proposals, to try to guess what the current account would be in the absence of the fiscal deficit and to set a target accordingly, would seem to be fraught with error and not necessarily the best response available.

It has sometimes been suggested that in certain circumstances the fiscal balance should be set at a surplus in order to run down private and/or public debt. For instance, there may be a stock of public debt which is the legacy of past government investment in assets with low yields. Subject to other requirements of fiscal policy at the time, this would seem an entirely reasonable policy. However, it has also been claimed that when the private sector has accumulated foreign obligations, fiscal surpluses should be used in an attempt to run down total foreign indebtedness. The implication of a budget surplus in this context is both that the private sector has made mistakes in its past saving and investment and is incapable of making correct decisions about and appropriate adjustments to its current and future saving and investment. This must be established and attempting to do so must involve the types of arguments about the failure of the private sector which are dealt with elsewhere in this paper. When there is internal balance, it is not self evident that the authorities should force the private sector to save more than they otherwise would choose.

III. The Role of Net Foreign Assets

A major reason why some are concerned about current account deficits must be that they can lead to a run-down of net external assets or increase in net foreign obligations. Why should foreign indebtedness be regarded as a problem? How different is it from indebtedness between domestic residents? Clearly, there can be genuine problems arising from an accumulation of public obligations in foreign currency, especially when the tax base seems inadequate to service the debt. This is one aspect of the issue of unsustainability, that is the possibility that debt may be accumulated at a rate which would lead to some breakdown in normal debt servicing, rollover, and repayment, leading to default or rescheduling of

debts. Because the obligations, practices, and financial bases of the public and private sectors are different in the debt/lending system, it would seem important to distinguish carefully between their roles in these processes.

For the private sector the possibility exists that there may be externalities in the operation of the borrowing/lending process or in financial markets, which could lead to the accumulation of suboptimal levels of foreign debt. A related issue is that of country risk, that is, whether the laws and institutions and political environment of a country raise or lower the riskiness of returns to borrowers and lenders. Country risk must be distinguished from currency risk, that is, the possibility of future currency fluctuations. Another associated question is whether the possession of "large" foreign debts (or assets) leaves a country in some sense vulnerable to losses in recessions and financial crises and whether this constitutes a case for public action. In the discussion which follows, it is important to recall that excess demand has been recognized as one of the potentially more important of the undesirable contributors to current account deficits. Thus if it appears likely that foreign debts might be accumulated faster in the presence of excess demand, controlling demand incidentally curbs the growth of such debt.

In this section the approach taken is not the same as for the discussion of the current account, which started from an ideal world and looked at the consequences of a variety of violations of this state. Instead, the analysis will deal with a number of points which are more clearly issues involving stocks rather than flows of foreign debt. As before, issues overlap the categories.

1. Public debt

When is the stock of public debt a problem? Leave aside the question of LDCs and countries with substantial exchange controls and/or highly regulated exchange rate systems. For a government which wishes to remain solvent, an upper constraint is imposed by the ability to meet interest obligations from the tax base and other revenue sources. Within that limit, debt may be considered excessive or deficient depending on the public capital stock that backs it and on the intergenerational considerations which may have justified it. Foreign currency debt may be thought an additional problem because future depreciation may raise the value of obligations. Governments with debt which financed private or government consumption or public capital with low returns should consider whether their debt stocks are excessive. An example of high government debt levels can be seen in the public debt accumulated during war. For instance, at the end of World War II the Australian Commonwealth Government had outstanding securities on issue of about 100 percent of GDP, 80 percent of it domiciled in Australia. This figure was steadily reduced so that by the mid eighties

it was about 20 percent of GDP, with a fifth being Australian domiciled. This experience demonstrates both the scale of public debt that can be managed and the way it can be run down.

Inside the upper limits, the level of public debt can be too high if it has been used to finance activities with low returns. If there is not an adequate public capital stock to back the debt it would seem appropriate to take steps to reduce it. Of course, for some public capital, returns must be measured in a social sense. Defence equipment and roads do not yield returns which allow easy comparison with those from private sector capital.

Consider now the issue of sustainability in relation to public debt. As the public sector has control over its policies, the appropriate point of analysis is with the policies which generate the debt. Ability to service government borrowing abroad will be influenced by factors such as the earning capacity of any public capital which backs the debt, the tax base and the future course of exchange rates if the debt is denominated in foreign currency. 1/ Clearly, government foreign borrowing which finances consumption in a country whose tax base is small and/or tax collections are close to the maximum possible, is going to experience problems. On the other hand, public debt which has been used to finance a public capital stock with a high expected return is liable to be sustainable.

2. Private sector debt and sustainability

The notion of sustainability in the context of debt, is usually applied both to fiscal deficits, public debt and sometimes fiscal policy in general. Involving, as it does, issues of fiscal responsibility, this concept is both important and complex and has been the subject of a considerable literature. 2/ In principle there is little choice where fiscal deficits are a reflection of fiscal irresponsibility to treat the problem at its source. Here the question addressed is whether the sustainability concept can be usefully applied to private foreign debt. 3/ More generally it seems important to distinguish between "policy unsustainability" and "private sector unsustainability", where the former refers to policies which are the source of unsustainability and the latter to unsustainability which is endemic in the private sector.

The idea behind the concept of the sustainability of private sector outcomes is presumably to suggest whether a particular set of economic conditions, in the present context the size and rate of change of the net foreign asset stock, can be allowed to continue in the medium to longer run

1/ The sustainability of fiscal deficits and of government net foreign debt are different though related questions because the government can finance a deficit by borrowing domestically as well as from abroad.

2/ See, for instance, Horne (1988, 1990, 1991); Masson (1985); and Kremers and Masson (1989).

3/ This section is based on Pitchford (1992).

without any changes in policy. A need to change policy is not sufficient to identify an unsustainable situation, as changes in policy occur not only when a system is unsustainable, but also when policy is not optimal. Some situations are non-optimal but, nevertheless, sustainable. Unsustainable circumstances are usually taken to be those which, without policy changes, would eventually lead to values of variables regarded as infeasible. 1/ For instance, the cost of servicing loans could equal or exceed the excess of GDP over subsistence consumption, or the capital stock could become zero. So policy changes induced by unsustainability are those which are made to prevent the future attainment of boundary values of variables. 2/ With a reasonable degree of certainty in the economic environment, it would seem likely that long before these values are reached it would become clear that policy changes are needed. Yet unforeseen events, such as a dramatic deterioration in the terms of trade or increase in real interest rates, could bring an economy closer than comfortable to the limits of feasible outcomes. No economic situation can be made perfectly safe. Sustainability can only be meaningful if it is defined in terms of expectations about relevant variables.

One of the problems about defining unsustainability in terms of paths headed towards infeasible values of variables is that often the relevant infeasible value will be a long way off. For instance, if the boundary of feasibility is defined in terms of consumption being greater than or equal to some subsistence level, this event could be so far in the future along an unstable path that it gives little or no guide to its property of instability. In fact, in the context of private sector debt it should be the creditor who explicitly or implicitly imposes feasibility rules. Essentially, a creditor would not choose to allow a borrower to get into a situation in which she/he was unable to repay his/her debt. Normally this would be a private matter between the parties involved and in the context of the prevailing legal system. The role of government is to set the legal rules in which borrowing and lending take place and in addition to establish internal balance.

1/ Discussion of the distinction between sustainability and optimality is aided by the precision of dynamic optimization. The optimization process often yields a structure of saddle point paths some of which are unstable and at least one, stable. All these paths satisfy necessary conditions of optimality. Usually, only the stable path is sustainable. The unstable paths will normally lead to an eventual approach to values for at least one of the variables which violate some non-negativity requirement. Hence if the horizon is infinite, or finite and long, the unsustainable paths will not normally be optimal.

2/ There is no easy answer to the question of what are feasible and what infeasible values of variables such as net foreign indebtedness. Presumably debtors or creditors must have them in mind in relation to their own commitments. In terms of the arguments of the previous footnote, infeasible values could be those from which stable paths cannot be reached.

Is the private sector likely to have a problem of sustainability? Note that it is still assumed that there is no excess demand, this being a separate issue. Recall also that for the private sector to experience an unsustainable situation the economy would need to be on an unstable path towards infeasible or prohibited values of variables. In answering this question it is important that any economy-wide concepts used have a sensible counterpart in the variables which enter into the decision making of individual agents. There are several key ratios which by convention are regarded as indicators of the sustainability of a country's foreign debt situation. One of these is the ratio of net foreign indebtedness to GDP and another its ratio to exports. These ratios are used in several ways which it is claimed are relevant to sustainability. First, it has been suggested that if the interest rate exceeds the growth rate, debt is unsustainable. ^{1/} Arithmetical exercises in relation to sustainability can overlook the flexibility which is embodied in optimizing responses. For each firm that is about to borrow abroad the operational question is whether the expected rate of profit is adequate. Bygones are bygones and projects with low yields lead to bankruptcy, restructuring, or just low incomes. What more can be done to sustain and enhance the value of saving than to invest in projects which, given that expectations are reasonable in the light of available information, have the highest expected rate of profit? The geometrical progression implied by interest obligations does not dominate the process. Either the project will turn out to be profitable and meet its obligations, or it will be unprofitable and will eventually be wound up, with or without bankruptcy. Indeed, many firms and projects may have a history of substantial profitability followed in the course of time by failure and bankruptcy. They are not sustainable, but are nevertheless worthwhile. Secondly, particular values of the ratios are supposed to indicate that debt is excessive. In fact, the appropriate level and composition of financing is a problem for the firms involved of properly appraising investment prospects, including forecasting the relevant price movements. Arbitrary ratios cannot replace a search for "market fundamentals" in this process.

In the case of foreign debt the argument is often made that, because in the very long run the current account must be in balance, there is a pending real depreciation for a deficit country, which is likely to be unforeseen by the private sector. This theme has been considered earlier in relation to

^{1/} One of the common approaches goes as follows. Let the deficit on trade in goods and services be T and external indebtedness be D , both measured in domestic currency. With an interest rate r the balance of payments constraint is $dD/dt = T + rD$. Rearranging, this becomes $(dx/dt)/x = (r - g) + T/D$ where x is the debt to GDP ratio, and g the growth rate of GDP. If the ratio of debt to GDP is constant, the growth rate must equal the interest rate plus the ratio T/D . If appropriate conditions are not satisfied the economy can be caught in a debt trap with an ever-increasing ratio of debt to GDP. However, the rigidity of the ratios involved has no counterpart in private sector decisions and institutions.

the externality issue where it was referred to as "relative price effects" and it was noted that it could be quite difficult for private or public agents to make good forecasts of such occurrences. Is it not possible that there could be greater losses resulting from incorrect bureaucratic forecasts which lead to macro policies constraining the economy to slow growth, than from allowing the private sector to make informed decisions? The appropriate response to the view that the authorities can see these adjustments coming would be for them to release their forecasts and the analysis on which they are based. Were they to turn out to be largely correct, the private sector could be expected to adapt its future investment plans on the basis of such forecasts. If a forecast about future exchange rate depreciation is worthwhile it is worth presenting for public scrutiny.

One of the major theories of unsustainability is that relating to bubbles. Models of bubbles demonstrate that, even where expectations are rational and a stable path exists, it is possible for an economy to follow an unstable path along which expectations are fulfilled. Surveys of bubble behavior are given in Blanchard and Fischer (1989); and Flood and Hodrick (1990). The market fundamentals price of an asset can be thought of as the discounted value of the stream of future dividends. It is an implication of this that there is a relationship between the expected increment in the value of an asset between t and $t+1$ and its expected dividend in $t+1$. However, this incremental relationship does not necessarily have the market fundamentals price as its only solution. Prices can be formed from market fundamentals plus bubble elements which must grow at the rate of interest, hence making the price unstable.

The question of whether bubbles exist and can be detected seems to be an open one. Flood and Hodrick (1990, page 87) conclude that "... no econometric test has yet demonstrated that bubbles are present in the data. In each case, misspecification of the model or alternative market fundamentals seem the likely explanation." Examining the history of three famous bubbles (including the South Sea Bubble) Gaber (1990) concluded that in each case market fundamentals could have explained observed price behavior. However, White (1990) contends that the 1929 US stock market boom and crash could not be entirely explained by fundamentals and so appeared to have bubble attributes. Market fundamentals which promise expansion and high returns to assets, but where there is significant uncertainty about their extent, seem to have characterized the episodes treated by Gaber and White. These papers tend to confirm the observation by Blanchard and Watson (1982), that prospect for bubbles would seem to be good when market fundamentals for a boom are present, but their extent is difficult to appraise. As well, it is probably true that uncertainty about market fundamentals will also make it difficult even with hindsight for economists to establish whether bubbles have been present in such circumstances. Sustainability may well have an application to bubble phenomena as prices and associated real variables may move along unsustainable paths, though its practical application could be limited by the fact that it has not yet proved easy to identify the presence of bubbles.

While the central notion of sustainability for private sector debtors could be thought of as avoiding insolvency, at the economy-wide level there is no obvious counterpart concept. There is no plausibility in viewing the bankruptcy of the whole private sector as the situation to avoid, but what is there short of this? In any case even, if they could be defined, it would seem that the best way of detecting unsustainable paths is to attempt to identify the prospects of the investment which backs private foreign liabilities. This being so the concept of sustainability of private sector debt adds nothing to the search for "market fundamentals" which is the essence of investment planning.

3. Externalities

Essentially, this section deals with externalities not elsewhere discussed. The reason is that because externalities are a large part of the case for intervention, they crop up and are more easily treated under other heading.

The literature on optimal foreign investment contains a possible externality which depends on net indebtedness. Following Bardhan (1967), suppose the interest rate charged by foreigners varies positively with the size of a country's outstanding stock of foreign debt. This could arise from an upward sloping supply curve of lending arising from the increasing opportunity cost of investment forgone elsewhere. Marginal borrowers raise the cost of borrowing on existing loans as well as their own borrowing. The argument parallels that of the optimal tariff. The socially optimal solution from the point of view of the borrowing country is to cut back on borrowing so that the marginal cost of borrowing equals the return to capital. However, world income is maximized where the market solution obtains, that is where the return to capital equals the interest rate. If a country wished to exploit the possibility for higher income inherent in this proposition it would need to estimate the elasticity of the supply curve of foreign capital and set a tax on the earnings of firms borrowing from abroad at a level dependent on this elasticity. The lending country could retaliate, leading to a process of tax adjustments which would make both countries worse off than under unrestricted capital mobility. If mistakes were made in estimating the elasticity of the supply curve of foreign capital, the borrowers could be left worse off than under free capital mobility. There seem to be very few in favor of setting optimal tariffs and this argument to restrict international capital mobility for similar reasons has little support. In any case, if this effect arose because investors correctly judged that the risk of default rose with the size of the outstanding stock of foreign debt, the difference between expected rates of return to borrowers and lenders would represent an appropriate risk premium. Only if lenders wrongly assessed the correlation between rates of return as debts rose, would there be a case for intervention. This demonstrates the difficulty of deciding when an externality might exist. A closely related argument named the contamination effect has been put forward by Corden and will be considered under country risk.

The relation between the size of debt and interest rates is an interesting issue not just because of the possible externality aspect, but mainly by reason of the adjustment which it would produce for borrowing. Interest rates which rise with the size of borrowing could be an important mechanism limiting the amount of borrowing undertaken and bringing the private sector to equilibrium. 1/ For this reason, the appraisals of credit rating agencies and the impact of ratings on interest rates may well be part of a desirable system of restraint. Of course, this assumes that these ratings are based on reliable information, appropriately used.

4. Currency risk

Currency risk is a market issue, particularly in a flexible exchange rate system. For individuals, exchange risk can be hedged away at a cost, or foreign borrowing can be transacted in domestic currency. However, it can be the case that expertise in a market may be inadequate so that some social issues arise. When the Australian dollar was floated in December 1983, some banks transacted loans in Swiss francs at much lower interest rates than were ruling in Australia. The subsequent devaluation of the Australian dollar brought heavy and apparently unexpected losses to many borrowers. Some pursued the question successfully in the courts, claiming that they were badly advised. Aside from such learning processes, market participants must accept that such risks are intrinsic in floating rates and in a different way with adjustable pegged rates.

There is also the question that exchange rate variability along with other factors may be thought to justify a change to another exchange rate regime (Krugman (1989)). Alternatively, there may be externalities in the operation of foreign exchange markets which justify intervention in that market. However, there do not appear to be issues associated with the size of a country's foreign debt which enter into these questions in any significant way. Although portfolio balance models (Branson and Henderson (1985)) do imply that stocks of foreign currency denominated assets can well have an important influence on exchange rates, there is no implication from this of a relation between market inefficiency and debt.

5. Country risk

Securities of the same maturity and in the same currency in different countries need not be perfect substitutes if their risk of default and the ease and probability of recovery of the proceeds of default vary. Differing laws and regulations and explicit or implicit government guarantees can imply country specific risk and the concept can be extended to equities as well as interest bearing debt. 2/ All sorts of actual and potential

1/ Chada and Symansky (1991) discuss the costs of such adjustments.

2/ For an investor domiciled in one country exactly the same real or nominal project will have different probability distributions of returns for that investor depending on the country in which it is undertaken.

actions can change the risk perception of foreign lenders. For instance, tariffs and other forms of protection, restrictions on capital movements and differing tax regimes can alter risk as well as returns. It would seem to be of the greatest importance that the private sector should be allowed to operate with no implicit or explicit government guarantees that aid will be available to firms in financial difficulties. The alternative is that there will be a shifting of the legitimate risks of private enterprises to taxpayers. It follows that private debt, both foreign and domestically supplied, is liable to be accumulated in excessive amounts and may become a liability of taxpayers.

Another issue in this area is the question of debt ratings which private agencies supply. Downgrading of a country's credit ratings can work to raise the costs of borrowing to both public and private agents. In this respect they are another mechanism of adjustment in the public and private sector debt process. So long as the debt rating agency uses a method which appropriately evaluates the risk premium it claims to evaluate on the basis of the most relevant information available, its ratings provide worthwhile information to aid prudent lending.

If increased borrowing by one agent raises the risk factor facing another agent there may be an externality which Corden (1991) calls "the contamination effect". This concept requires careful consideration. First, note what Corden has said: "The real issue is whether changes in the risk factor resulting from increased borrowing are wholly internalized for the various agents, private and public, or whether there is some externality or 'contamination effect'. If they are wholly internalized--so that increased borrowing by one agent does not raise the risk factor facing another agent--there seems to be no public policy issue resulting from current account deficits" (page 14).

Consider firm A which supplies components which firm B uses to manufacture its product. An expansion of capacity by firm B, financed by borrowing leads to a consequent expansion by firm A. Lenders will rightly see these prospects as correlated and any additional risk premium extracted from firm B will have a counterpart in firm A's borrowing. Thus related risk premia reflecting correlation between the outcomes of interrelated prospects seem entirely appropriate. The situation which Corden appears to envisage is entirely different. Assume the prospects of firm A and B are entirely uncorrelated, but suppose both firms are domiciled in country X and firm B has been managed by a prominent country X entrepreneur who has become bankrupt. If firm A is thereby charged an additional risk premium just because it is domiciled in country X, there would be an externality. Firm B's failure has contaminated firm A. The missing market would be in the provision of information about the degree of connection between the two firms. If lenders regard the correlation between borrowers' risks as higher than their objective level, an externality will arise. It would be difficult to identify and deal with this effect. If it were thought to be important, perhaps it could be tackled by increased prudential and accounting controls so that high risk prospects were better identified.

It is sometimes said that financial markets look with disfavor at countries with large current account deficits or foreign liabilities. Unless the operators in these markets can identify some undesirable cause of these outcomes, such judgements are unfounded. However, it is possible that risk premia may be charged or policies urged on countries merely because the markets think that these magnitudes, without further scrutiny, mean something adverse. In the short run, there may be times when policy might have to be adapted to give some accommodation to ill-considered views, for instance if there were a run on the currency. Perhaps also interest differentials based on improper assessment of risks could persist purely on the basis of mistaken views about the role of deficits and debt. The real problem would be to distinguish such cases from rational market reactions. In the long run it might be expected that the markets involved may come to appreciate economic fundamentals.

The nature of banking regulation is an important aspect of country risk. While it is appropriate to urge that private borrowers who run into difficulties should not be given public assistance, in the case of banks this may prove difficult to achieve in practice. Hence to avoid, as far as possible, the potential for supporting banks, Finch (1990, page 29) has suggested that inspection of banks lending should include a current account aspect. "A new risk arises when the overall current account deficit of a country becomes so large that a depreciation of its currency will be needed Bank regulators then have a responsibility to review the adequacy of the capital of banks and their clients, in order to cover the risk of loss in impending currency changes." Prudent regulatory responses to anticipated structural changes would seem a reasonable procedure. A major problem would be correctly forecasting future exchange rate changes, as mistakes may unnecessarily restrict investment. As well, a major policy contribution to the solution of this problem would be the pursuit of internal balance, particularly the avoidance of boom conditions in which risky investment thrives.

6. Vulnerability

The issue of the "vulnerability" which foreign debt may create for a borrowing country is at the heart of many arguments about the need for its control. It is sometimes claimed that foreign debt makes a country "more vulnerable" to losses in a recession. The idea usually is that a recession may accentuate the possibility of a substantial devaluation and so increase the chance of default for those with obligations in foreign currency. Hence it is a form of currency risk and while it can be treated as such, it does have some special features. In a depression or substantial recession, many firms will be simultaneously under pressure from falling demand and prices and also both domestic and foreign creditors will be exerting pressure to preserve their assets. It could well be the case that a large foreign debt

leads to a greater nominal exchange rate depreciation than otherwise. 1/ Hence there may be a combination of country risk and currency risk in the notion of vulnerability.

Does it follow that countries which are exposed to this type of risk should act to curb the accumulation of foreign debt by the private sector? Individual firms should be able to assess the chances of a recession during the lifetime of their projects. Substantial depressions such as those of the 1930s and 1890s must now be considered rare events and while recessions are still common, their magnitude and frequency ought to be well known to those planning long-term investments. The possibility will exist that, because foreign currency debts are large and involve interconnected risks, default could be widespread. Presumably, market agents are usually able to perceive correlations between risks faced by various companies. Again, provided that there has been no public guarantee of private debt and that internal balance is assiduously pursued, there would not seem to be a case for believing that an externality was present. The most relevant policy action would be to avoid substantial recessions and the substantial booms which often precede them. Enough is known about macro economic policy to make this possible. Again the issue comes down to that of concentrating on the achievement of internal balance.

In assessing this issue it must not be forgotten that there are many ways of avoiding risks. Individual firms may borrow from foreigners in domestic currency, or hedge their obligations through forward markets. Borrowing from parent companies diversifies the exchange risk for the organization, while borrowing from abroad in domestic currency involves the opposite exchange risk to borrowing in foreign currency. Foreign investment in equities entails no exchange risk for the domestic companies involved. If it were considered that domestic institutions were not capable of providing suitable means of insurance against currency and other risks, the appropriate remedy is to establish or reform the markets involved. It is strange that vulnerability questions do not appear to be raised with respect to creditor countries as often as they are for debtors. After all, lenders stand to lose if borrowers fail and default and while the borrowing country may well retain capital equipment financed from abroad, lenders losses could be heavy. 2/

An important aspect of individual agents' decisionmaking is the degree of risk aversion with which they face uncertain prospects. Molho (1990) has claimed that attitudes to risk may be an important cause of the pattern of current account deficits. Hence, countries which are in some average sense highly risk averse run surpluses and those with a lesser risk aversion,

1/ This is consistent with the portfolio balance view of exchange rate determination which allows for currency preferences. See, for instance, Branson and Henderson (1985).

2/ However, discussion of the third world debt crisis of the eighties did focus on the problems of creditors as well as debtors.

deficits. "Recent external imbalances may reflect different attitudes toward risky domestic investment between surplus and deficit countries rather than systematic differences in the productivity of capital. The existence of risk does not in itself invalidate the case for allowing private capital flows efficiently to finance saving-investment gaps, but it does suggest that this may be at the expense of extra risk in the future consumption possibilities of deficit countries" (page 29). The problem with this argument is to establish that the citizens and governments of deficit countries are really more risk averse than those with surpluses. In any case, the argument does not imply a case for intervention.

IV. Data Problems

Analyzing issues of foreign accounts brings to attention the sometimes considerable inadequacy of the published data for the task of assessing levels and changes in foreign net liabilities. Consider some of the problems. First, while it has long been recognized that fiscal deficits need to be adjusted for the inflation component of nominal interest payments, there is little recognition that the current account requires a similar adjustment. ^{1/} Secondly, although in principle net foreign liabilities should reflect present market values and the current account deficit changes in those values, these concepts are often not so measured. One consequence is that the correspondence between the current account deficit and changes in net liabilities may not hold. Thirdly, it can be that tax laws provide incentives not to disclose information necessary for the proper measurement of these concepts. Finally, the measurement of components of the current account deficit such as saving or the fiscal deficit may be misleading or may require adjustments.

It would not be appropriate to go into great detail on these data questions, but it is worth looking at some examples so as to appreciate the problems which they pose for policy formation based upon them. Makin (1991) adjusted the Australian current account data for various valuation effects, including the inflation component of interest. Because Australia's inflation rate was of the order of 7 percent in the eighties, the differences this makes to the recorded current account outcomes is considerable. For instance, the unadjusted deficit to GDP ratio in 1985-86 was 6.3 percent, while adjusted it becomes 2.3 percent. Similar differences appear for all years from 1980-81 to 1988-89, the largest adjustment being 4 percentage points, and the smallest 0.5 percentage points.

Sinn (1990) has examined the relationship between the current account balance and changes in the net external asset position of a large number of countries. A basic reason why they may differ is that changes in the valuation of assets due to changes in exchange rate changes or the price of

^{1/} For inflation adjustment of fiscal balances see, for example, OECD (1989).

assets are not recorded in the current account. He investigates the correlation between these magnitudes with mixed results. For more than half of the 145 countries, the correlation was low or non-existent. Given that statistical practices imply that the current account balance is not the same concept as the change in the country's net foreign asset position, doubt must be cast on the meaning of significant correlations! Even more so the meaning of current account balances for policy purposes must be open to serious question.

The published data on Australia's net foreign assets show a substantial jump in foreign debt in 1980. However, at that time there was a change in the method of valuing private securities from historical to market values. Hence, much of this increase may have been misleading and Australia's net liabilities were probably higher before the eighties than the data shows.

The components of the current account are saving, investment and the fiscal balance. All of these are subject to a variety of measurement practices and problems. Consider only saving data. In periods of inflation the household saving ratio requires an adjustment to remove the inflation component of interest from household income. In the unadjusted data, the Australian household saving ratio appeared to fall considerably in the 1980s, leading some to blame this for the increase in Australia's current account deficit. Edey and Britten-Jones (1990) have shown this fall disappears when allowance is made for the fact that the inflation component of interest is not household income.

Many more such examples could be given. However, these should be sufficient to indicate to those who regard current account, external liability and debt figures as potential indicators of serious economic problems, that there is much more work to be done to provide meaningful and consistent estimates of these magnitudes.

V. Conclusions

1. Macroeconomic policy and the current account

There is probably general agreement that macroeconomic policy should target internal balance. ^{1/} If this were successfully pursued one of the undesirable sources of variation in the current account would have been minimized. To the extent that excess demand for domestic goods spills over into the traded goods sector targeting internal balance also targets the current account. On the other hand there does not seem to be any good reason for using macro policy to target the current account deficit as such. The extreme form of this proposition would take some fixed target level such as zero or 2 percent of GDP and use macro instruments to move toward this

^{1/} This could mean anything from a minimalist Friedman monetary rule to discretionary monetary, fiscal, and wage policy.

target. This overlooks the fact that the current account only has welfare significance beyond its foreign investment role in so far as it is generated by undesirable features elsewhere in the economy. Targeting the current account through macro policy need not deal with underlying causes other than excess demand. Surely it is better to identify and treat these cause directly, rather than use macro policies which most probably have no long-term effect on causes of deficits other than excess demand and which can cause substantial short-term losses.

Fiscal deficits are an example of an underlying cause which needs to be treated at source. They may be regarded either as desirable or undesirable. If Ricardian equivalence does not hold, the sizes of the two deficits are likely to be related. However, if the fiscal deficit is thought undesirable, there would seem little point in using monetary policy in an attempt to curb the current account deficit in the absence of excess demand. The effect on the fiscal deficit would be of the second order and transitory.

Examination of the source of foreign liabilities would also seem necessary before the authorities use a fiscal surplus to reduce this stock. Suppose an economy has inherited a substantial stock of foreign debt which is now judged to be too high for present circumstances. It would seem crucial to be clear about the nature of this excess stock before taking policy action. A budget surplus to reduce the excess would be appropriate if the excess debt had been accumulated by the public sector. The public sector may have borrowed from foreigners to finance public business enterprises which have failed to yield a satisfactory return. A budget surplus or reduced deficit to retire foreign debt plus action to reform the delinquent enterprises would seem appropriate. It may well be that the public sector had not borrowed directly from abroad, but through domestic loan raising had crowded out private borrowers into the foreign loan markets. In this case retirement of the relevant public domestic debt would be called for and the private sector could be left to adjust the foreign component of its borrowing.

However, suppose it were the case that circumstances had rendered the level of private foreign debt excessive. There would then not appear to be much point in a fiscal surplus and the retirement of public debt. This would have no direct impact on the excess private debt. Ultimately, the private sector has to make the adjustment. The required contribution of macro policy, including budgetary policy, to this process would be to maintain internal balance. The other important contribution of the public sector would be to provide conditions to allow the development of appropriate financial institutions to facilitate the private sector's adjustment.

Suppose it could be shown that distortions were leading to a situation of too little saving by the private sector. The first best policy would be to remove the regulation or treat the externality which was to blame. Where this could not be done, there may be a case for a fiscal surplus based on increased taxes to provide a second best solution. However, the analysis of

such problems is always fraught with theoretical and empirical uncertainties. Hence, it is by no means certain that such public action would bring the economy closer to an undistorted solution. In fairness to the taxpayers who would provide the additional saving, the case would have to be carefully and explicitly made. Ideally, they should be given an explicit choice so that they can decide at the ballot box between extra taxes and the removal of distortions.

2. Information content of foreign balances and liabilities

It has been noted that an economy's current account deficit and/or level of net foreign liabilities can be high because of undesirable features of that economy. But how good an indicator are deficits and liabilities of such defects? Where deficits are rising and net foreign indebtedness is high there are grounds for investigating the nature of the causes. These may range from an upswing of the trade cycle, a high or increased rate of immigration, a distorting tax system, or misleading data. The information content of the current account deficit is not high. It leads us first to look at saving, investment and fiscal deficits and also trade and other foreign income items for proximate causes and this can suggest hypotheses about events in the economy. However, this process would be perfectly possible without reference to the current account balance at all.

Identification of causes of changes in balances may not be easy. For instance, in the case of the rise in the Australian current account deficit in the eighties, popular explanations have included a fall in the household saving ratio, excess demand due to an investment boom, fiscal deficits, investment demands stemming from a high rate of immigration, financial deregulation, fluctuations in the terms of trade, distortions produced by the nominal tax system, inadequacies of data that does not allow for the inflation adjustment on interest, lax business and borrowing practices of entrepreneurs and deficiency of the data due to the movement of assets off-shore to evade tax. It is not necessarily easy to confirm the causes of current account deficits.

3. Microeconomic policy and distortions

Given that it may be hard to pinpoint the causes of stocks and flows of foreign net liabilities, governments which have concerns about these magnitudes should take steps to eliminate the more undesirable possible causes. For example, it may not be clear that changes to financial regulations are the cause of a rise in the current account deficit, but this does not mean that inadequate prudential surveillance should be tolerated. All of the potential sources of distortions to saving, investment and borrowing will be candidates for scrutiny. However, it does not follow that all microeconomic reforms will act to reduce deficits. In many cases, for example privatization of public businesses, such reforms could lead to higher investment. When all feasible reforms have been carried out and when the economy is in internal balance, the remaining deficits and indebtedness must be taken to represent desirable foreign investment.

APPENDIX

Monetary Policy, Wage Policy and the Current Account Balance

Consider the extended Mundell/Fleming model analysed by Bruce and Purvis (1985) and others. Underlying it is a real system in which the only good produced at home is the exportable. Consumption involves both exportables and imports. The model is:

$$y = \tilde{S}(P/W) \quad \text{supply of output} \quad (1')$$

$$dW = \theta[\alpha dP + (1-\alpha)(de + dP^*)] \quad \text{labour supply/indexation} \quad (1'')$$

$$y = S(\sigma, P) \quad \text{aggregate supply} \quad (1)$$

$$\sigma = P/eP^* \quad \text{relative price of home goods} \quad (2)$$

$$M = PL(y, r^*) \quad \text{money market} \quad (3)$$

$$y = E(y, r^*) + G + NX(\sigma, y) \quad \text{goods market} \quad (4)$$

where

- y - real output = output of exportables = output of the domestically produced good
- P - price of the domestic good
- α - the weight of domestic goods in the price index of consumption
- W - nominal wage
- e - nominal exchange rate = price of foreign money
- P^* - price of imports in foreign currency
- σ - $(=1/\pi)$ the relative price of home goods to imported goods
- π - real exchange rate
- r^* - foreign interest rate
- E - real private domestic demand for both goods
- M - the nominal money supply
- G - government demand for the domestic good
- NX - net exports

The signs underneath variables denote the direction of effect of that variable on the dependent variable. The initial value of all prices and the exchange rate are taken to be unity, so that $dP/P = dP$ measures a proportional as well as an absolute price change. Most of the system is based on the familiar open economy macroeconomic model. Equation (4) specifies that demand for the home good is composed of total private demand for both goods (E), plus government demand for the home good (G), plus foreign demand for the home good

less imports, the last two terms being taken together as net exports (NX). Embodied in (4) is the assumption of perfect capital mobility plus static expectation about exchange rates. This ensures that the domestic interest rate equals the foreign interest rate (r^*) which will be taken to be a constant parameter. Equation (3) is the familiar money market equilibrium relationship, while (2) defines the relative price of home goods to foreign goods (measured in domestic currency). The aggregate supply function (1) relates output to the relative and absolute price of home goods, and is derived from (1') a conventional supply curve, in which the real wage in terms of home goods determines output, and (1'') which describes the indexation of wages. To see how (1) is derived note first that in (1'') when $\theta = 1$ wages are fully indexed, when $\theta = 0$ they are fixed and for $0 < \theta < 1$ wages are partially indexed. The price index involved is composed of home goods prices (weight α) and foreign goods prices (weight $(1-\alpha)$).

Suppose first that there is full indexation of wages, and let the price of the home good rise while the foreign goods price in foreign currency and the exchange rate do not change. Wages will rise (because they are indexed) but in less than full proportion to the rise in the home goods price (because the index involves the foreign good's price and this has remained constant). Thus the real wage cost of a unit of output of the home good has fallen inducing an expansion in its output. This can be written:

$$y = S(P/eP^*) = S(\sigma) \quad (1a)$$

In the case in which money wages are constant, real wage cost per unit of home goods depends only on the price of home goods so that the supply function is:

$$y = S(P) \quad (1c)$$

Partial indexation produces a wage outcome which must be between the two extremes. The degree of wage indexation is θ . In part, measured by θ , wages respond to relative prices as in the fully indexed case and hence output responds as in that case. In part, measured by $(1-\theta)$, they do not change, and output response is as in the case of fixed money wages. Thus output response depends on both the relative and absolute price of home goods and this relation, together with the rest of the system may be written:

$$y = S(\sigma, P) \quad (1b)$$

Suppose that the wage process involves partial indexation. The system is then (1b), (3), (4).

$$M = PL(y, r^*) \quad (3)$$

+ -

$$y = D(\sigma, G) \quad (4)$$

- +

Where D stands for aggregate demand for the home good. For a given M and G, the three equations (1b), (3), (4) determine y, σ and P. The condition for zero net exports is:

$$NX(\sigma, y) = 0 \quad (5)$$

where the sign of the partial derivative NX_σ is negative as shown if the Marshall/Lerner condition is satisfied.

Solving for P in (3) and substituting in (1b),

$$y = S(\sigma, M/L(y, r^*)) \quad (6)$$

From which,

$$y = y(\sigma, r^*, M) \quad (7)$$

+ + +

The slopes of (5) and (7) in the (y, σ) plane are:

$$d\sigma/dy [D=S] = (1 - E_y - NX_y)/NX_\sigma \quad (8)$$

$$d\sigma/dy [NX=0] = - NX_y/NX_\sigma \quad (9)$$

Figure A1

The aggregate demand curve (4), the aggregate supply/money market curve (7) and the zero net export locus (5) are drawn in figure A1 using the above results. The Marshall/Lerner condition is satisfied by $NX_\sigma < 0$, so with the other signs at their usual values the relative slopes of the aggregate demand

and zero net exports are as shown. A fall in the money supply shifts the supply curve to the left, reducing real income and appreciating the real exchange rate. At the new short-term equilibrium E_1 , the current account is in deficit. Despite the tendency towards surplus because of the fall in income, the effect of the exchange rate appreciation to cause a deficit must dominate as long as the Marshall/Lerner condition is fulfilled.

If the exchange rate were pegged the money supply would become an endogenous variable, so that it would not be possible to run an independent monetary policy.

Consider now the effect of an exogenous reduction in the real wage with partial indexation. The adjustment in money wages is now:

$$dW = \theta[\alpha dP + (1-\alpha)(de + dP^*)] + dw \quad (1'')$$

where w is the initial real wage and the real wage level which would be attained with full indexation. The supply curve is:

$$y = S(\underset{+}{\sigma}, \underset{+}{P}, \underset{-}{w}) \quad (1)$$

substituting for P , as before from the liquidity preference function, it becomes:

$$y = y(\underset{+}{\sigma}, \underset{+}{r^*}, \underset{+}{M}, \underset{-}{w}) \quad (7)$$

Hence a fall in w will have the same qualitative effect as a rise in M , shifting the supply curve to the right. Thus figure A1 applies for a real wage reduction and the current account goes into surplus.

If the exchange rate were pegged, M rather than e would be exogenous and figure A1 could be drawn with M on the vertical axis with the slopes of the curves unchanged. The reduction in the real wage would again move the current account to surplus.

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