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Macroeconomic Issues in Foreign Aid

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MACROECONOMIC ISSUES IN FOREIGN AID [†]

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Abstract: The macroeconomic rationale for aid relates to its ability to supplement savings, foreign exchange and government revenue, thus contributing to growth. This processes presumes a simple Harrod-Domar context in which growth is driven by physical capital formation. However, the macroeconomic reality of aid is more complicated. Three areas of complication are discussed: (i) the effects of aid on fiscal behaviour, (ii) debt problems and (iii) Dutch disease effects. In the long run, rather than merely filling gaps, aid should help close gaps, since reliance on future aid and foreign borrowing is thus diminished and economic policy autonomy is increased. Closing the savings gap entails financial and technical support for mobilisation of domestic savings. Closing the trade gap entails supporting a macro environment conducive to export growth, helping to expand and improve physical infrastructure and direct support for export activities, notably those of a non-traditional nature. Closing the fiscal gap entails support for increasing government revenue and improving expenditure management, which is the more delicate task since donors and recipient governments have to carefully balance the disadvantage of lower-than-needed government spending against the disadvantage of higher, and potentially distortionary, taxation.

1. Introduction

Foreign aid is intended to have beneficial macroeconomic effects, most notably to raise a country's economic growth rate. The traditional rationale for this view has been that aid can fill the savings and trade gaps, as shown by the two-gap model which we discuss in Section 2. However, the debate over gap models clearly illustrates that the macroeconomic role and effect of aid are considerably more complicated than is presumed in the gap literature. Some of these complications are discussed in Section 3, namely: (i) the effects of foreign aid on government fiscal behaviour (including the tax effort of the receiving government and the fungibility of aid), (ii) the possibility of debt problems and (iii) the relationship between foreign aid and the exchange rate (Dutch disease). These various contributions seek to show that aid may do much more than merely fill gaps - and this in ways not explicitly accounted for in the gap literature. However, a major argument of this paper is that aid should not be used simply to temporarily *fill* gaps, but given in such a way that the gaps will *close* over time so that a country's growth may then be sustained without aid. In Section 4 we discuss how aid may be used to close both the external and fiscal gaps, considering both macro-level interventions and project-level interventions. Section 5 concludes.

2. The macroeconomic rationale for foreign aid

The gap-models of the 1950s and 1960s had in common the Harrod-Domar tradition of stressing physical capital formation as a central driving force of economic growth. In the Harrod-Domar model output depends upon the investment rate, and on the productivity of that investment. Investment is financed by savings, and in an open economy total savings equal the sum of domestic and foreign savings. A savings gap is said to arise if domestic savings alone are insufficient to finance the investment required to attain a

target rate of growth (e.g. Rosenstein-Rodan 1961 and Fei and Paauw 1965). It should be stressed that the idea of a gap only makes sense given an exogenously determined target growth rate. A distinction is thus made between the *ex ante* savings gap (the difference between desired investment and domestic savings) and the *ex post* savings gap (the difference between actual investment and domestic savings).

In addition to the savings gap there is also a trade gap, which is based on the further assumption that not all investment goods can be produced domestically. Hence a certain level of imports is required to attain desired investment (i.e. once again the investment required to achieve the target growth rate). The import bill is financed either from export earnings or foreign capital inflows (e.g. aid). If exports are not sufficient to cover the whole bill the availability of foreign exchange (forex) to purchase imported capital goods (rather than the supply of domestic savings) may become the binding constraint on growth. Hence, there is binding trade gap, also called the foreign exchange (forex) gap. Once again a distinction is made between the *ex ante* trade gap (the difference between desired imports and exports) and the *ex post* gap (the difference between actual imports and exports). Critics of the approach argue that this difference between *ex ante* and *ex post* could only emerge if markets were suppressed through fixed exchange rates regime: if exchange rates are flexible then there can be no gap. But this argument misses the point that the gap has to be defined with reference to a *target* growth rate, in which case a gap may be present even if there markets are liberalised (though the "gap" may be less if controls held back exports). The trade gap formed the basis of work carried out by the UN in the 1950s (and was sometimes called the Prebisch gap).

The two gaps are combined in the two-gap model, put forward by Chenery and Strout (1966). Growth will be constrained by the larger of the two *ex ante*

gaps. If aid is insufficient to fill the larger of these gaps the desired growth rate cannot be attained. That is, the gaps are not additive: aid simultaneously fills both gaps (by paying for imported capital equipment a single aid dollar relaxes both the savings and the forex constraint). If the larger gap is filled then the non-binding gap is "over-filled" (the *ex post* gap exceeds the *ex ante* one).[1]

The traditional two-gap model sees imports as aiding capital accumulation, whereas more recent statements of the three-gap model (see below) reflect the fact that output may be constrained by low capacity utilization due to lack of spares and intermediate goods rather than lack of investments (e.g. Nalo 1993, Ndulu 1991, Shaaeldin 1988 and the country studies in Taylor 1993). These models thus disaggregate imports, so that import composition matters as well as the level of imports.

Chenery and Strout also raised the possibility that there would be a skills gap at early levels of development, whereby a lack of technical expertise would constrain the level of investment which could be attained. Over the years a number of other gaps have been proposed, such as the technology gap, the food gap, the gender gap and the environment gap. More narrowly related to the tradition of the two-gap model have been recent concerns over a third "fiscal" gap between government revenue and expenditures, as illustrated by the three-gap models by Bacha (1990) and Taylor (1991, 1993). Although the fiscal gap is a subset of the savings gap, the former may be the binding constraint if there is some limit on public spending (say, through a borrowing

[1] This fact of course requires some adjustment in the model variables. Chenery and Strout assumed that there would be additional consumption if the savings gap is over-filled and additional imports if the forex gap is over-filled.

target) and private investment is linked to public investment through a crowding in (or out) relationship.

As noted, an important aspect of the fiscal gap relates to capacity utilization. In the literature, capacity utilization, i.e. the extent to which new and existing productive capacities (the legacy of past investments) are utilized, has been found to be of major importance for growth in developing countries (see the studies cited above). Government efforts to increase capacity utilization are thus important, and involves spending on infrastructure, education, health services etc. Curbing these efforts to increase capacity utilization can occur when government resources for investment and imports are insufficient, *inter alia*, as a result of large public debt service; indeed, evidence is available suggesting that government expenditure in the sub-Saharan African region has been curtailed by foreign debt service (e.g. Fielding 1997, Gallagher 1994 and Sahn 1992, 1990). The closing of this fiscal gap could thus be facilitated by external resources directed to the government budget.

In sum, the gap models predict a positive role for foreign aid whereby it supplements domestic savings, export earnings and government revenue, hence increasing, investment, imports and government expenditure, and thereby growth. However, the empirical record of aid seems rather more mixed, and a number of macroeconomic complications have been advanced in the literature to explain why there is no one-for-one relationship between aid and economic performance. In the next section we discuss three such areas: (i) government fiscal behaviour, (ii) foreign debt problems associated with the loan-component of aid and (iii) the relationship between foreign aid and the currency exchange rate of the aid recipient.

3. Macroeconomic complications in foreign aid

To analyse aid's macroeconomic impact we need to study aggregates such as growth, output, investment, savings etc. with aid, and compare them with what they would have been without aid. It may seem that such an analysis need simply (i) classify aid in various ways - for example, as being for investment or consumption, types of government expenditure supported and imports versus local costs - and then (ii) add these aid amounts to the amount which originate from domestic resources (and non-aid capital inflows). This is the approach inherent in the two-gap model. Yet, such analysis is not satisfactory since it is based on the assumption that domestic savings, government expenditure and revenue, foreign borrowing, the exchange rate etc. are not affected by aid inflows. We illustrate below how some of these economic complications may interfere with the simple aid-growth relationship in the two-gap model.

AID AND GOVERNMENT FISCAL BEHAVIOUR

An important complicating factor, which has not been explicitly accounted for in the gap literature, is the fiscal behaviour of governments which receive foreign aid. It is, in particular, of considerable interest to understand how aid inflows affect government expenditure and financing patterns. This is so since the aid recipient may of course have other objectives than the aid donor. Two distinct, but inter-related strands of the development literature have attempted to deal with these issues, both having the concept of aid fungibility as a central issue. The first approach is explicitly concerned with the fungibility of aid as regards government spending patterns. The other, so-called 'fiscal response' literature, adopts a more theoretical approach and attempts to analyse how aid impacts on various categories of expenditures and financing sources (including taxes). Both approaches form the broader context in which government behaviour *vis-à-vis* foreign aid is analysed (McGillivray and Morrissey 1999a).

The fungibility of aid. The traditional fungibility argument - not conceived within the fiscal response literature - was first advanced by Singer (1965). He argued that aid's impact should not be evaluated against the projects said to be 'aid-financed'. His point may be illustrated as follows. Suppose a government has $100 million to be allocated between two activities (both costing exactly $100 million): rehabilitating rural health clinics or buying some military hardware (say, nice shiny tanks). After some deliberation the government decides to prioritise the health clinics. Subsequently a donor offers the government $100 million for any development project. Clearly the tanks are not eligible for donor finance, but the health clinics are. So the government may ask the donor to finance the latter, freeing up its own resources to buy the tanks. The actual impact of the aid (a comparison of with versus without) is therefore to increase military rather than health expenditure (Table 1). No diversion of funds is involved, but funding an activity that would have happened in the absence of aid frees up resources to be used elsewhere. It is this marginal expenditure which is effectively related with the impact of the aid.[2] Fungibility among different types of expenditure is therefore observed when the item for which aid is intended does not rise by exactly the amount of the aid inflow.[3] It is obvious that if the government

[2] Thus if the donor does not specify the use of funds it makes no sense to talk of fungibility. Programme aid funds (discussed in Mosley and Eeckhout 2000) are often called "very fungible", but that is a mis-use of the term since there are no conditions as to what these funds should be used for. Aid which has no designated purpose is best referred to as free resources. Aid which does have a designated purpose is effectively free resources if it is fungible.

[3] White (1998) elaborates this definition by distinguishing between aggregate and categorical fungibility. The former is where the aggregate category (say, imports or government expenditure) does not rise in a one-for-one manner with an aid flow whose intended purpose is to increase that aggregate. Categorical fungibility occurs

initially intended to buy military equipment, aid will clearly be beneficial, and there are in any case limits to fungibility, as discussed below.

Table 1: Expenditure patterns with and without aid.

	Health expenditure (rural health clinics)	Military expenditure (tanks)
Without aid	100	0
With aid	100	100

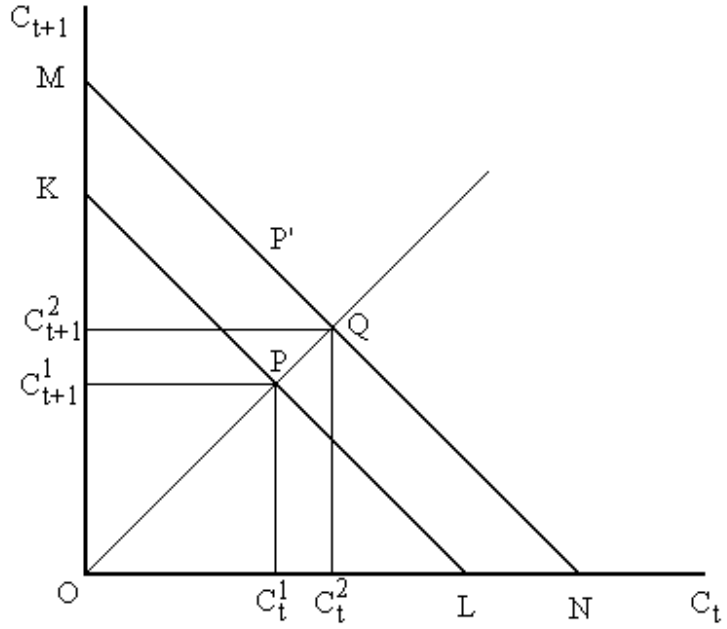
The fungibility problem can also be illustrated using the more narrow concept of fungibility inherent in the analysis by Griffin (1970). He looked at the relationship between aid and domestic savings. Accordingly, Figures 1 and 2 illustrate inter-temporal consumption decisions with and without aid. Income may be consumed in the current period (C_t) or saved, invested and consumed in the next period (C_{t+1}). Future consumption will be $(1+r)$ times the value of savings in time t (r being the return on capital). For a given level of income in Figure 1 the budget constraint is KL, and assuming standard preferences, the consumption bundle is at point P, with domestic savings of $L\text{-}C_t^1$.

Now suppose there is an aid inflow of value A, equal to LN. This shifts the budget constraint out to MN. In the two-gap model, there is no fungibility. Thus, it is assumed that aid is used to increase investment only, so consumption in period t remains unchanged at point P . In contrast, it can be argued as done by Griffin that aid will in reality be treated like any other income and shared between consumption and savings according to their respective marginal propensities. This would move consumption in period t

if the inflow increases any expenditure item within the aggregate other than those intended by the donor.

to point *Q*, and domestic savings fall to $L\text{-}C_t^2$. As such there is no longer a one-to-one relationship between aid and savings--investment; aid is fungible.

Figure 1: Griffin's analysis of aid and savings.

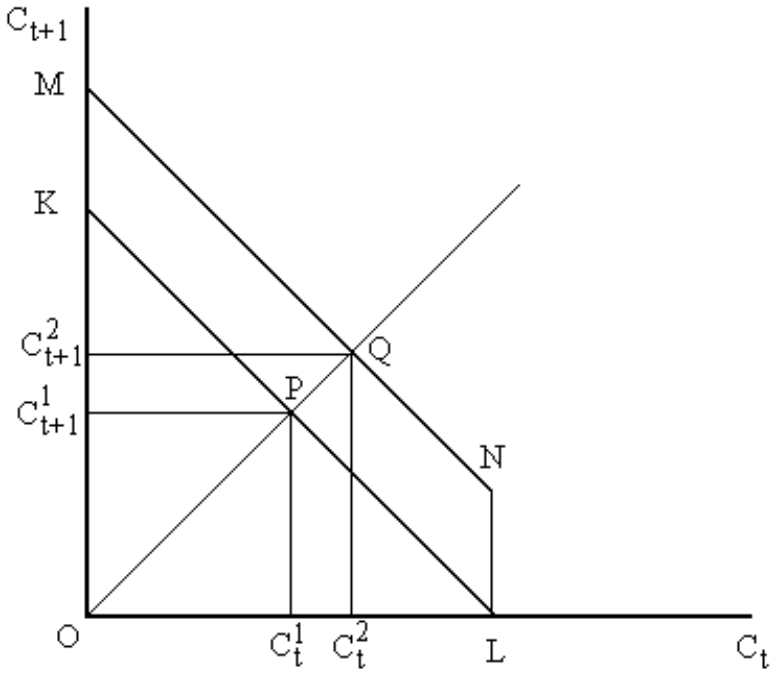


One underlying assumption behind the above argument is that it treats aid as a free resource (i.e. as part of income) which may be allocated exactly as the recipient wishes.[4] Assume instead the donor directs the aid towards investment in such a way that the budget constraint with aid changes from being *MN* in Figure 1 to *MNL* as shown in Figure 2. From Figure 2 it follows that aid remains fungible as long as the preferred consumption bundle lies along *MN*. Yet, if preferences dictate that a point to the right of *N* should be chosen this is no longer feasible. In this case, aid fungibility is limited. Such situations appear, *ceteris paribus*, when aid finance is large relative to domestic resources, or if few resources would be devoted to investment in the absence of aid. At the limit, assuming *L* is chosen without aid, there are no

[4] See White (1998) for further critiques.

domestic savings. In this case, aid geared at investment will result in a one-to-one increase in investment, i.e. there is no fungibility. This also illustrates that aid will tend to be fungible if it is allocated to a use to which the recipient accords high priority.[5]

Figure 2: The kinked budget constraint.



In sum, it is clear that the fungibility of aid is an important issue in understanding how aid impacts on government behaviour and growth in aid receiving countries (see Feyzioglu et al. 1998 and Pack and Pack 1993 for recent studies). It should be highlighted, however, that fungibility may not

[5] Figure 2 may be adapted to analyse other allocations: for example developmental government expenditure on the vertical axis and other expenditures on the horizontal, or capital and intermediate imports and consumer imports respectively. The same argument regarding the limits of fungibility will apply in these cases.

necessarily be a problem. If the aid recipient has more knowledge about how to maximise the impact of aid, then fungibility may in fact be growth-enhancing, assuming, of course, that the aid recipient pursues growth and development objectives in an effective manner. Thus, whether fungibility should be seen as positive or negative feature of aid depends upon country-specific circumstances and the interplay between donor and aid recipient objectives.

Fiscal response models. The fiscal response literature relies on more formal modelling to identify how aid inflows may result in government behaviour that undermines the intended growth effects of aid (McGillivray and Morrissey 1999b). A number of studies on this subject has appeared following the seminal paper by Heller (1975), including Mosley et al. (1987), Gang and Khan (1991), Binh and McGillivray (1993) and White (1993). The standard point of departure is a government utility function, where targets have been set for expenditure types (e.g. recurrent and capital), revenue (tax and non-tax) and borrowing (domestic and foreign). The government tries to maximise the utility function by attaining these targets, subject to a budget constraint in which aid inflows have traditionally been included as an exogenous variable (on the ground that aid levels are supply determined). Recent specifications of the utility function include aid as an endogenous variable (e.g. Franco-Rodriguez et al. 1998 and McGillivray and Morrissey 1999b).[6] Estimation of the model is performed after deriving reduced form equations for each endogenous variable.

[6] Including aid as an endogenous variable is based on the premise that, once donors have committed the aid money, recipients can in practice determine actual disbursements (total and among different expenditure types).

Recent empirical evidence for Pakistan generated along these lines indicates that foreign aid has led to somewhat higher capital expenditures (investments), markedly lower recurrent expenditures (consumption), and a markedly lower tax effort during the 1965-95 period (Franco-Rodriguez et al. 1998) than would have been the case without aid. This result appears also to be characteristic in a number of other studies (McGillivray 1999), implying that the aid-investment link is firm. In contrast, the World Bank (1998) puts more emphasis on the potential consumption enhancing effects of aid. Turning to the lower tax effort of aid recipients, this may be seen as an undesirable consequence of aid, though some may point to the removal of the distortionary effects of taxation, or argue that this is a channel for global redistribution from developed country tax payers to developing country ones.

Aid may either increase or decrease the budget deficit, or even leave it unchanged, depending on the difference between incremental expenditures and revenue. In theory, the deficit may increase if the government has to commit its own additional resources to complement project aid or if tax revenue fall sharply. On the other hand, programme aid, the local currency countervalue of which is often not tied to any particular expenditure, can reduce the deficit (for evidence of which, see White 1999a).

In spite of the insights gained from fiscal response models, a number of theoretical and methodological problems limit the scope for clear-cut conclusions about the fiscal behaviour of governments *vis-à-vis* the aid-growth link, as discussed in more detail in McGillivray and Morrissey (1999b) and White (1994, 1992). Important among these are the estimation problems that arise from inadequate data. More important, these models do not specifically link the fiscal effects of aid to growth, or macroeconomic aggregates more generally. This implies, *inter alia*, that the impact on savings and taxes, transmitted through the feedback effects of aid on current and

future income, are not accounted for even though they may be of real significance (White 1993). Only indirect inferences can therefore be made about how government fiscal behaviour affects the aid-growth relationship, and thus how donor policy can be designed or redesigned so as to maximise aid's growth potential. As noted by McGillivray and Morrissey (1999b), this points to a combination of (preferably country-specific) growth and fiscal response theory as an avenue of future research.

AID AND FOREIGN DEBT

Gap-models provide a macroeconomic rationale for foreign aid when there is deficiency in domestic savings, foreign exchange or government revenue. Focus is on closing these gaps through external resources, and no distinction is usually made between aid grants, aid loans and other flows. If, however, resource gaps are closed through debt-creating flows, problems may arise because of the cost difference to the recipient in the form of future repayments. This may have adverse implications for the savings, forex and fiscal gaps in the longer term, and for macroeconomic performance more generally. Two types of debt problems have occupied debt analysts in this regard. One relates to debt capacity problems, involving a disruption of normal debtor-creditor relations in which the debtor is unable (or unwilling) to honour debt service obligations as they come due. Tangible evidence of such problems occurs when payment arrears accumulate and debt is rescheduled or forgiven. The other problem is that which occurs when a country's foreign debt is so large as to adversely affect economic development (regardless of whether it is serviced in full or not). This problem is less easily distinguished, since economic development is influenced by a host of other factors besides foreign debt. The two problems are considered in turn.

Debt capacity problems. The concept of debt capacity has provided an analytical framework within which the foreign debt of developing countries has most commonly been assessed. Three different approaches to the analysis of debt capacity can be found in the literature, each pointing to different "locations" within the macroeconomy to look for explanations of debt service problems. The first approach evolves around the "growth-cum-debt" literature, where emphasis is on analysing whether foreign borrowing is adequately supported by output growth. The second approach of "debt dynamics" deals with the external solvency issue of foreign debt, and attention is directed towards the external performance of the economy in relation to the cost of borrowing. The third approach, of more recent interest and concern, may be called the "fiscal dimension" of foreign debt, and focus is on the debt burden of the public sector *vis-à-vis* public revenue.

Growth-cum-debt models consider debt capacity in terms of the benefits and costs of foreign resources in the process of economic growth (e.g. Avramovic et al. 1964, Hernandez-Cata 1988, Greene and Khan 1990 and the survey by McDonald 1982). The argument is that debt capacity can be maintained, provided that additions to foreign debt over time contribute sufficiently to growth, suggesting a virtual race between growth and debt as a possible development path. The basic idea is that the behaviour of international financial resources may change in different stages of what is called the "debt cycle", and that these changes are closely linked to the course of economic development. As development proceeds, changes in domestic income, rates of savings, accumulation of capital stock, and rates of return on investment can be expected to alter the volume and direction of financial resources. Hence, over time, countries are expected to move through a number of formalised balance-of-payments and debt stages, moving from a debtor position to that of the creditor (see Avramovic et al. 1964).

There is no automaticity in this process, however. Progression through the debt cycle requires that a number of conditions be met.[7] Often, since these conditions are seen as important only insofar as they support the number one condition of a satisfactory level of economic growth, they have been submerged into one single condition expressed within the context of the Harrod-Domar model. The condition states that (over time) the growth rate of output should exceed (or at least equal) the rate of interest. In this context, debt capacity is viewed in terms of the ease with which a country can reconcile competing claims on domestic resources, i.e. demands for increased domestic absorption and the financial obligations abroad. Reconciliation of such competing claims are of course easier when resources are growing. For as long as debt payments require only part of the increment in income, it is

[7] For instance, in the aggregate, the return on investment projects, measured by the marginal product of capital, must be higher than the international interest rate. Also, ploughed-back profits must be high enough so that private savings in time rise over and above investment. Alternatively (or supplementary), government savings must rise, i.e. fiscal deficits must be reduced. This in turn will leave a resource surplus which can be used to meet debt service. The crucial factor in this regard is what is happening to the savings ratio. If the marginal propensity to save exceeds the average, the savings ratio will rise. Otherwise, savings behavior may impede on the completion of the debt cycle. The volume of investments (meeting the first condition) must also be adequate so as to enable total output and income to grow at a satisfactory rate. A high income growth rate would also have the effect of encouraging the fulfilment of condition two. Furthermore, continued external finance must be available, in principle regardless of how debt service is managed, but this requires that borrowing countries handle their external accounts in a way that allows them continuously to service obligations due. Ways must also be found so as to moderate fluctuations in export earnings of borrowing countries. It is clear that for a country to maintain debt capacity and complete the debt cycle, it will have to keep a close eye on all the variables that determine whether the above conditions are met or not.

possible that consumption and investment can grow along with debt service. A borrowing strategy based on the principles of growth-cum-debt will thus only work if there *is* economic growth. Considering, however, the growth experience of many indebted developing countries over the past decades, it is clear that economic growth has generally not been impressive, and in many cases certainly not sufficient to support growing debt obligations (Tarp 1994 and Hjertholm 1991).

Despite the merits of the above approach, preservation of debt capacity requires more than growth (even if it is high). Since foreign borrowing is conducted in foreign exchange, the savings surplus has to be converted into foreign exchange in order to effect the transfer of debt payments. Growth is therefore only a necessary, but not sufficient condition for maintaining debt capacity. Debt dynamics models directly address the issue of a borrowing country's external solvency (e.g. Cooper and Sachs 1985, Simonsen 1985 and World Bank 1985). Since debt is serviced in foreign currency, the value of exports gives a more accurate impression of income than for example GDP as it relates more directly to debt servicing ability. Accordingly, of key interest is export performance relative to the cost of borrowing. To maintain debt capacity, the rate of growth of exports must exceed (or at least equal) the rate of interest. When exports grow faster than debt, the borrowing country does not have to contribute any of its domestic resources when servicing debt. The debt dynamics approach stresses the need for adjustments in the trade balance in order to maintain debt capacity, and it suggests that solvency might be endangered if exports does not grow commensurately with debt obligations. Observing the generally poor export record of indebted developing countries since the late 1970s therefore suggests another reason (besides low output growth) for the emergence of debt problems (Tarp 1994).

When analysing debt capacity, the debt dynamics model has one important shortcoming, however, stemming from its exclusive focus on the balance-of-payments, thereby largely ignoring internal constraints on debt capacity. In poor countries these constraints can be of a structural nature, related to e.g. the import and agricultural dependence of these countries, or they can be of a sectoral nature, related to e.g. the dichotomy between private assets and public liabilities in countries with predominantly public debts (i.e. the internal transfer problem as discussed below). Even so, the response of the international financial community to the debt crisis has commonly been cast in an aggregate context in which debt capacity is understood as primarily a balance-of-payments issue. For this reason, a prominent element of past debt strategies, besides increased financing and selective debt relief, has been to promote adjustments that would bring about an increase in foreign exchange, and thus in the ability to effect the external transfer of debt service.

At the heart of the debt capacity of the public sector is what has become known as the 'internal transfer problem'. One early theoretical formulation of the fiscal dimension involved in foreign debt is found in Kharas (1981a, 1981b, 1981c). Kharas considered the problems facing a government engaged in foreign borrowing to finance public expenditures, and which is constrained in its ability to collect revenue to service the acquired debt. If the government uses most of the borrowed funds for investments in such areas as infrastructure, education, health services, etc., the sustainable level of debt that the government can take on will depend, not only on the relationship between the marginal social return on these investments and the marginal cost of borrowing, but also on the governments ability to appropriate sufficient domestic resources for debt service. Debt capacity thus also requires an expanding tax base. The fiscal source of debt service problems is thus evident

if taxation is not expanded commensurately with maturing public debt service obligations.[8]

Reisen and van Trotsenburg (1988) empirically analysed the internal transfer problem in the wider context of the theory of international transfers. They uncovered that the fiscal transfer problem had been one of the main obstacles to a return to international creditworthiness for most of the major (commercial) debtors in the first half of the 1980s. This result suggested that the fiscal burden of debt exacerbated debt capacity problems and helped explain why earlier projections, by e.g. Cline (1983), of the anticipated return to creditworthiness could not be realized, despite achievement of projected improvements in industrial country growth and reductions in LIBOR. With respect to the indebted low-income countries in sub-Saharan Africa, a recent study by Hjertholm (1997) similarly found that fiscal debt burden indicators played a significant role in explaining the poor debt servicing performance of a large number of sub-Saharan countries. This suggests that the issue of debt service capacity cannot be separated from the issue of the government budget constraint.[9]

Foreign debt and economic development. That there is a close link between large foreign debt burdens and economic development is strongly indicated by the empirical evidence, which have generated a fairly robust statistical

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[8] An important point to emerge from this line of argument, and one that departs from conventional debt capacity analysis, is that the critical link between debt service and government taxation makes it possible for debt problems to occur even if all inflows of foreign resources are used for investment, and if the marginal product of capital is greater than the real rate of interest.

[9] Analysis of the fiscal dimension of foreign debt in developing countries can also be found in Bevilaqua (1994) and Dittus (1989).

relationship between high foreign debt burdens and poor economic performance (e.g. Cohen 1996, Ojo and Oshikoya 1995, Oshikoya 1994, Salih 1994, Ukpolo 1992 and Mbaku 1991). However, by analysing debt and economic performance in an aggregate context, this literature has tended to leave potential fiscal problems unattended. This analytical limitation may be particularly problematic in case of the poorest debtor countries, where the fragile budgetary stance of governments may entail more difficult fiscal policy tradeoffs than elsewhere. In the following, a number of possible channels that can transmit the effects of the fiscal burden of debt on economic performance will be examined. They include (i) cash-flow effects stemming from public expenditure crowding-out and from import compression and (ii) disincentives associated with a large debt overhang.[10]

There is a well-established notion that public expenditures may have significant complimentary effects on private investment, a notion fuelled by the idea that growth in poor countries can be impeded by structural bottlenecks, which (as a rule) only the government can remedy, through e.g. investments in infrastructure.[11] The generally inferior state of infrastructural,

[10] As a result of higher debt burdens, uncertainty about international creditworthiness may also entail restrictions on access to international capital markets. However, since most of the poorest indebted countries do not have access to these markets in the first place, this effect is of less relevance, and will therefore not be discussed further. Moreover, such capital inflows are in a sense a measure of the liquidity constraint, which is essentially also captured through the crowding-out and import compression effects.

[11] See Hirschman (1967), Díaz-Alejandro (1981) and Taylor (1983) for such ideas. Also, as the only or at least the most basic, supplier of health, education, and water services to middle- and low-income households (Green 1994), the governments of poor countries affect the accumulation of human capital and thereby long-run output growth, as stressed by endogenous growth models.

educational and health facilities in poor countries thus provides considerable scope for utilizing the positive externalities associated with government expenditures.[12] However, to the extent that such expenditures are crowded out by public debt service, these poor countries will miss out on these complementarity effects, and thereby experience lower levels of private investment and growth than would otherwise be possible. As noted earlier, evidence is available to suggest that government expenditures in sub-Saharan African countries has indeed been squeezed by public debt service (Fielding 1997, Gallagher 1994 and Sahn 1992, 1990).

A closely related cash-flow problem associated with public debt service is import compression. As noted by Ndulu (1991), import compression can occur for two reasons. First, if the ability of the economy to substitute between imported and home produced capital goods is limited, a cut in capital goods imports will lead to a decline in investment activity and growth.[13] Second, following Hemphill (1974) and Moran (1990), import compression can occur in cases where import volumes are determined by import capacity rather than relative prices. And since the two main sources of import capacity are exports and foreign savings (and given the meagre export performance of

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[12] See Hadjimichael and Ghura (1995), Hadjimichael et al. (1995), Bairam (1990) and the country studies in Taylor (1993).

[13] Since some substitution away from imports may take place, the decline in investment will probably be proportionally less than the decline in imports. And yet, the remarkable stability of the relationship between real capital imports and real investments observed in sub-Saharan Africa in the 1980s, suggests that the fixed proportional relationship is not that far off, and the imperfect substitution phenomenon is indeed partly responsible for the import compression observed in this region.

poor indebted countries since the early 1980s),[14] it is clear that the magnitude of debt service will matter greatly for import capacity, through its reduction of foreign savings. Import compression occurs both at the balance-of-payments level and at the budgetary level (i.e. the effect of public debt service on the import-content of government expenditure). Reductions in the import capacity of the government, as a result of debt service, can thus reduce government investment activity, whereby the complementarity effects mentioned are involuntarily sacrificed, with adverse effects on private investment. That such cash-flow effects have indeed been at work in poor indebted countries is confirmed (for 20 sub-Saharan African countries) by the empirical study by Hjertholm (1997).

There is an important additional mechanism through which economic performance can be adversely affected by public debt. Domestic (and foreign) investors will need assurance that their expected return will in fact be realised, and will thus keep an eye on developments in a number of key factors, which are believed to be of importance for the incentive to invest. The extent to which an "overhang" of public debt can affect this "incentive structure" has generated a notable literature of its own.[15] Debt overhang effects come in two varieties. The first stresses the tax disincentives associated with high debt burdens. This is the "narrow" variety usually found in the literature. The other variety extends the disincentive phenomenon to include broad measures of macroeconomic instability.

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[14] See, e.g. Baban and Greene (1992), Svedberg (1991) and Rosen and Shapouri (1989).

[15] Early contributions include studies by Krugman (1987, 1985), Sachs (1986, 1984), and Dooley (1986). An early literature review can be found in Froot and Krugman (1990), while Claessens et al. (1996) and Cline (1995) offer more up-dated reviews of the literature.

The fundamental notion of the narrow debt overhang theory is that the future debt service burden of a country with an exhausted capacity to service debt is likely to weigh heavily on the increase in the country's future economic output. Part of any future increase in output will thus go to foreign creditors. This will be perceived domestically as akin to a "tax" on investment returns, which in turn will act to discourage investors (Borensztein 1990a). On these grounds, the case has been made for debt reductions since it will improve investment incentives.[16] From the perspective of commercial creditors, if the incentive effect is strong enough the repayment prospects of the remaining debt increases.[17] As such, debt stock reduction may benefit debtors and creditors alike, and may thus be described as an efficient "market-based" debt reduction (Krugman 1989a and Sachs 1989d).[18]

Contesting this optimism regarding debt relief effects, Diwan and Rodrik (1992) argue that the existence of strong incentive effects is debatable, *inter alia* because debt payments in the area of 2-5 per cent of GDP (roughly translating into a 2-5 per cent marginal tax) appear too small to constitute a serious disincentive to private investment in the first place. However, given

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[16] See Borensztein (1990b), Sachs (1990, 1989a, 1989b, 1989c, 1989d, 1988), Diwan and Claessens (1989), Kenen (1989), Krugman (1989a, 1989b, 1988), Dornbusch (1988) and Sachs and Huizinga (1987).

[17] For this to happen, it has been shown that the debtor country must be on the "wrong" side of the so-called debt relief Laffer curve (see Krugman 1989a, Sachs 1989c and Froot 1989). Indeed, as noted by Krugman (1989a: 265), 'arguments that debt relief is in everyone's interest are, in effect, arguments that countries are on the wrong side of the debt relief Laffer curve.'

[18] Dooley (1989), building on the exposition by Froot (1989), shows that relieving a debtor country's debt overhang can provide investment incentives, not only to residents of the debtor country, but also to international investors.

the predominance of public debt in poor countries, disincentives would mainly be related to investments under the control or influence of the government, notably through its tax policies, and the fiscal burden of debt service may therefore imply a relatively high marginal tax burden *vis-à-vis* investors. Also, while a comparison between a debt service transfer of, say, 2 per cent of GDP and a tax revenue ratio of 25-30 per cent (which is about the developing country average) does indeed suggest only a moderate drain of fiscal accounts, it must be kept in mind that tax revenue ratios in the poorest countries are often far below this average.[19] In many poor countries, even a debt service burden of only 2 per cent of GDP may thus still impose problems at the fiscal level. This discussion aside, while the debt overhang theory appears to offer a good (but still partial) explanation of the dismal investment performance of poor indebted countries, nevertheless, the general state of the empirical evidence appears inconclusive.[20]

Besides the possibility of disincentives working through taxation, there is the possibility of disincentives working through general macroeconomic instability. The importance of macro stability, characterized for instance by

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[19] According to World Bank data for 1993, of 37 sub-Saharan countries, 20 achieved revenue/GDP ratios well below 20 per cent, another ten between 20 and 30 per cent, and in fact only seven countries were able to achieve revenue/GDP ratios of 30 per cent or higher.

[20] Among the studies that have found empirical support for the (narrow) debt overhang theory are Servén and Solimano (1993, 1992), Perasso (1992), Savvides (1992), Greene and Villanueva (1990), Borensztein (1990b), Faini and de Melo (1990), Fry (1989), IMF (1989: 45-67) and Aghevli et al. (1990). Studies that tend to reject the debt overhang hypothesis include Levy and Chowdhury (1993), Claessens, Oks and van Wijnbergen (1993), Warner (1993, 1992), and Hofman and Reisen (1990, 1991).

low and predictable inflation rates and stable exchange rates, lies in the inborn signals about the direction and credibility of government policies that are send to private agents. The element of certainty conveyed by such stability is enabling for investment planning and decisionmaking. Since many forms of investments are not necessarily characterized by the sort of smooth production functions assumed by neoclassical theory, but rather by irreversibility (capital goods are not very mobile once installed) and high initial lump-sum costs (Pindyck 1988 and Tornell 1989), investment decisions of a forward-looking nature can easily be put off if instability is on the rise. The empirical evidence tends to support the idea of a link between investment and the policy uncertainties accompanying macro instability (Servén and Solimano 1993, Fischer 1993, Blejer and Ize 1989 and Rodrik 1991).[21]

The impact of a public debt overhang on macro stability can occur through several channels. Public debt can increase the overall fiscal deficit directly by increasing debt service payments. It can lead to exchange rate depreciation, for balance-of-payments reasons, whereby the fiscal deficit widens because the home currency value of public debt service may increase relatively to public revenue. Moreover, an increase in the part of the fiscal deficit that is monetized (e.g. through higher government credits), can lead to monetary expansion and inflation. Finally, recourse to exceptional financing, such as payment arrears and rescheduling of debt payments tends to maintain uncertainty about the future debt servicing profile of the public sector, while at the same time absorbing much of the scarce analytical and policymaking capacity of the government for debt management, as well as disrupting ordinary trade flows. Quite apart from their equilibrium levels, public debt-induced fluctuations in such macro indicators as inflation, exchange rates, and

[21] For evidence on sub-Saharan Africa, see Schmidt-Hebbel (1995), Hadjimichael et al. (1995) and Hadjimichael and Ghura (1995).

exceptional financing may thus signal fiscal distress and an inadequate ability on the part of the government to control fiscal events. Such signals may in turn heighten investor uncertainty about the future direction of the macroeconomy and thus reduce the incentive to invest. In sum, the "extended" debt overhang hypothesis asserts, and available evidence appears confirmative, that one or more of the macro stability indicators discussed are likely to capture part of the investment disincentives of a foreign debt burden.[22]

AID AND THE EXCHANGE RATE

A third complicating area of concern in analysing the macroeconomic impact of foreign aid has been the effect of aid on the exchange rate of the recipient country, and thus on the general competitive stance of the export sector. Originally observed in connection with booming primary exports, this phenomenon has been labelled 'Dutch disease', deriving its name from the unhappy experience of the Netherlands after the discovery of major natural gas reserves in the sixties.[23] Since then, examples of the syndrome include Zambia (copper), treated in Kayizzi-Mugerwa (1990) and what Gillis et al.

[22] The study by Hjertholm (1997) for sub-Saharan Africa, for instance, while not generating strong evidence for the narrow debt overhang hypothesis, showed clear evidence of the "extended" version, in that public debt burdens had several (indirect) effects that were transmitted through macroeconomic variables, such as inflation, exchange rates and exceptional financing.

[23] In the seventies, after substantial natural gas reserves had been discovered in the sixties, the ensuing export boom and balance-of-payments surplus promised increased welfare for all Dutch. Instead, the seventies saw a Dutch economy suffering from rising inflation, falling manufactured exports, lower growth rates and rising unemployment (Gillis et al. 1996).

(1996: 479) has labelled 'a bad case of Dutch disease', namely the case of the oil boom in Nigeria (treated in, e.g. Bienen 1988 and Nyatepe-Coo 1994).[24] Dutch disease effects associated with booming exports were originally analysed by Corden and Neary (1982) and Michaley (1981), van Wijnbergen (1986) and recently Rattsø and Torvik (1999) have formulated theoretical models of aid-induced Dutch disease effects.

The Dutch disease phenomenon basically describes a situation where an inflow of foreign exchange in any form (i.e. from export earnings, private capital flows or foreign aid) puts upward pressure on the real exchange rate of the recipient country by stimulating more rapid domestic inflation. A large inflow of foreign aid may therefore result in a loss of competitiveness of exports, counteracting other efforts to increase exports.

The inflationary effects of foreign aid, however, may to some extent be mitigated by the inflow of foreign commodities purchased by foreign aid. Aid that increases the supply of commodities in general or eases supply bottlenecks in the economy, can be assumed to have a deflationary impact, which may or may not exceed the upward pressure on the real exchange rate as a result of the aid. Furthermore, an inflow of aid may raise the productivity of the traded-goods sector - for example, by lowering transport costs or raising the educational level. Aid which increases overall productivity in the traded-goods sector serves to improve international competitiveness, i.e. to increase the supply of traded goods at any given price (determined by world market prices, if the country is a price taker).

[24] There are also cases where the export booms have not led to Dutch disease problems, notably diamonds in Botswana (Hill 1991) and oil in Iran (Majd 1989).

Since there are counteracting effects, it is not possible *a priori* to determine what effects an increase in foreign aid will have on the recipient country's exchange rate, and hence, on the competitiveness of its exports. This is an empirical matter. The study by van Wijnbergen (1985), for instance, of six sub-Saharan African countries, to some extent confirms the hypothesis that increases in the volume of foreign aid can cause an appreciation of the real exchange rate in recipient countries, as did the study by White and Wignaraja (1992) of Sri Lanka. A study on Ghana similarly found that Dutch disease effects had posed problems for macroeconomic management in the eighties (Younger 1992). Evidence for Tanzania, on the other hand, suggests that foreign aid inflows had caused a real depreciation, a result that runs contrary to the Dutch disease hypothesis (Nyoni 1998).[25] There are several ways in which aid may support exchange rate depreciation, mainly through support for a change in exchange rate regime through policy dialogue and the provision of aid funds to support the more liberalised regime (see White 1999a, 1999b).[26]

However, in countries where foreign aid plays an important role in covering external deficits, there is good reason to be aware of the dangers of an aid-induced real appreciation of the rate of exchange. It remains, however, more a question of appropriate management of the inflow of foreign exchange; it is clear that the release of foreign exchange into the domestic economy needs to be in accordance with the absorptive capacity of the economy.

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[25] A study testing the Dutch disease hypothesis in the context of the 1976-7 Tanzania coffee boom similarly did not find supportive evidence (Musonda and Luvanda 1991), and neither did a similar study of the Dutch disease effects of the 1976-9 coffee boom in Kenya (Bevan et al. 1992).

[26] Furthermore, by financing an exchange rate anchor aid has an anti-inflationary effect.

3. Foreign aid for gap closing

It follows from the above review that the macroeconomic channels through which aid impacts on macroeconomic performance are complex, not to mention the further complicating issues that arise from the political economy of recipient countries (see, e.g. Kanbur 2000 on the situation in Africa). Looking ahead, we would argue that it is equally important to understand how aid can help close resource gaps in the long run, rather than merely filling these gaps in the immediate future. While foreign aid may well be needed for a considerable amount of time to help finance investment, imports and public expenditures, the longer-term perspective should involve also using aid for boosting recipient countries' ability to mobilize their own resources. This would entail provision of financial and technical support for mobilization of the domestic savings needed for investments (closing the savings gap), a subject treated in detail by Kovsted (2000). Here we consider measures directed at enhancing import capacity by using aid for export promotion (closing the trade gap), as well as aid supported initiatives intended to strengthen the capacity for revenue and expenditure management of recipient governments (closing the fiscal gap).

CLOSING THE TRADE GAP

Foreign aid fills the trade gap in the short run, where import reducing initiatives may also be considered in order to pursue economic stabilisation. However, the long-run development objective is that a country's own export earnings should be more or less sufficient to meet import requirements. Since import reduction is not conducive to the long-run growth process, this objective has to be pursued through export promotion (or, more precisely, achieving growth in export receipts in excess of that of import payments).

Accordingly, while import substitution was widely supported by aid donors in the sixties and seventies, far greater emphasis should in the future be placed on measures geared at export promotion.[27]

Export promotion consists of both raising export levels for existing products and of diversification into what are typically called non-traditional exports. Diversification is important since many countries remain reliant on a narrow range of primary products. Developing countries export only half as many products as do developed ones, and Africa only half the number from other developing regions (see table in the Appendix). Primary products are both subject to greater price fluctuation than are manufactured products and are believed by many to be subject to a secular decline in their relative price.[28] Diversification allows both branching out into higher value added activities and reducing exposure to price fluctuations.

Foreign aid can promote exports through three main channels: (i) supporting a conducive policy environment; (ii) financing infrastructural development; and (iii) direct support to export promotion. Each of these is discussed in turn.

The policy environment. Since the early 1980s programme aid (mostly balance-of-payments support and debt relief) has been conditional upon implementing policies agreed with the World Bank and IMF. These policies promote a market-oriented development strategy and are intended to increase

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[27] However, critics of aid from a dependency perspective argue that the focus of international agencies on increasing developing country exports illustrates the role of aid in forcing these countries to a subordinate position in the world economy (see, e.g. Hayter and Watson 1985).

[28] Of course, so long as prices are not perfectly correlated, a country experiences less earnings variation by producing two crops with variable prices rather than one.

the production of tradable goods, and more specifically exports. Most bilateral donors "buy into" World Bank/IMF programmes, though some may have additional conditionalities at the sector level; USAID, for example, has financed trade and investment programmes in several countries. The policy measures most relevant for export growth are (i) a move to a liberalised exchange rate regime, which usually implies a very substantial devaluation and often begins with retention schemes by which exporters can keep a share of their foreign exchange earnings rather than having to surrender them at the official rate; (ii) reduction and eventual removal of explicit export taxes and the implicit taxes implemented through price controls (operated through a monopsonistic state marketing board); and (iii) import liberalisation, which can reduce the price of imported inputs such as fertiliser. On the other hand adverse effects may be felt by the removal of subsidies for agricultural production and an increase in interest rates.

Most studies of the effect of adjustment policies find that export performance is the one area in which a positive impact is most likely to be felt. The World Bank, in its study on *Adjustment in Africa* found that 'countries with the largest improvements in macroeconomic policies enjoyed the highest median growth in exports and had by far the largest surge in export growth' (World Bank 1994: 153). Mosley et al. (1995) utilise each of the control group method, regressions and model simulations: five out of the six results reported show a positive impact on export growth (compared to two for GDP growth and none for the investment rate). In the review by Lensink (1996) of African studies similar results were found for World Bank programmes, though IMF ones are found to have a negative effect. In sum, policy reform appears to have a positive effect on export growth. Yet, it can be asked what role aid has played in supporting the reforms which have taken place in most developing countries. Whilst there is a growing feeling that aid has failed to buy reform, this conclusion is nuanced in relation to the type of reform. The

policy measures of most interest here - notably liberalisation of the foreign exchange market, but also export and import duty reductions - are amongst those where there does appear to have been a degree of influence in many countries. Indeed, as argued earlier, there are reasons to think that aid may have assisted the move to more liberalised forex regimes, and the associated exchange rate depreciation, in several countries.

Two caveats should be made to this positive picture. The first is that some argue that the export increase is not of the sort that will bring widespread benefits. For example, Gibbon et al. (1993) argue that increased exports have come from extractive foreign investment and are prone to the fallacy of composition (increased output will reduce prices and so not raise incomes), and criticisms of footloose labour-intensive industries are well known. Second, diversification has not been that great, especially in Africa and Latin America and the Caribbean. Indeed, classifying countries by policy stance (using the classification from *Adjustment in Africa*) shows that countries with the largest improvements in macro policy have become more concentrated rather than less (see table in the Appendix).

The main recommendation in terms of aid policy emerging from the above review is that, to the extent aid impacts on policy, the implications for export promotion need to be carefully considered.

Improving infrastructure. Despite the apparent success in increasing exports by the late eighties it was common-place to remark that "getting the prices right" was a necessary but not sufficient condition for restoring growth in exports or output more generally. Adequate infrastructure is also required for a supply response to occur. Such investments have been a traditional part of aid, typically accounting for around 20 per cent of commitments (Hjertholm and White 2000). Aid may finance general infrastructure, notably roads,

which open areas up to commercial production, or more specifically export-oriented infrastructure, such as that for export zones.

Despite falling out of fashion, infrastructure is, with the exception of railways, something donors can do reasonably well. A World Bank review found infrastructure projects to have consistently performed better than the average (Morra and Thumm 1977, vol.2: 41), although adequate maintenance of the infrastructure after donor involvement may, on the other hand, be a different matter. However, as such, this area appears as a promising area of aid intervention also in the future.

Direct export promotion. Finally donors may give direct support to export promotion, usually focussing on non-traditional exports. Such projects typically comprise management and technical support to selected export firms, provision of market information and other support to market penetration (e.g. participation at trade fairs),[29] and institutional development of relevant bodies, such as exporters' associations and standards' offices. Credit may also be provided, but the market-oriented philosophy of most donors means that cheap credit is most usually frowned upon (though the management and marketing services are subsidised, and this subsidy is accepted by the donor community).

Synthesis studies of USAID support to export promotion (Bremer et al. 1994 and McKean and Fox 1994) present a generally positive picture, though it is stated that such support is only worthwhile if the policy environment is right

[29] Typical of the conflicting objectives of donor agencies is the fact that aid also support penetration of the recipient market by donor country firms.

and there is a suspicion of too great a role for public sector bodies.[30] Export markets are most successfully secured by establishing links with a foreign partner, and indeed such projects often combine trade and investment promotion.[31] Critics of aid might therefore argue that if the market is allowed to function, and foreign investment flow in, then these supply chains will develop so as to increase developing country exports. More generally, the value of increased exports which may be ascribed to such projects is not sufficient to be of macroeconomic significance.

The overall picture with respect to past experience is therefore mixed. Policy reform does appear to increase exports, although there remain questions as to the extent to which reform can be attributed to aid and diversification is proceeding only slowly if at all. Support through infrastructure and direct export promotion can claim some success, but their macro significance should not be overstated.

CLOSING THE FISCAL GAP

The largest share of foreign aid is provided in support of public expenditures. Aid therefore helps fill the fiscal gap - a situation which is likely to continue in the short- to medium-term. Accordingly, much of the rationale for the programme aid provided during the nineties has been focussed on filling gaps. Nevertheless, the long-run objective of aid is that a country's revenue efforts should be - more or less - sufficient to cover its public expenditures.

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[30] Another USAID report (Rock 1993) finds that government export promotion services in Korea had 'minimal impact on export expansion.'

[31] The evaluation of CIDAs Jamaica Export Promotion Project, which had not included investment promotion, recommended it be included when the scheme was replicated elsewhere in the region (CIDA 1993).

With the successful reforms of trade and exchange rate regimes undertaken by many developing countries in the eighties, increasing emphasis has therefore been placed on closing the fiscal gap in structural adjustment programmes during the nineties. Apart from reducing aid dependence, the rationale for this emphasis involves that a reduction of the fiscal deficit, in particular a reduction of the domestic financing of such a deficit, has been and remains key to achieving and maintaining macroeconomic stability, which is needed to promote long-term growth.

Closing the fiscal gap involves (i) increasing government revenue in a manner, which minimises the distortionary nature of taxation and/or (ii) promoting the effectiveness and efficiency of expenditures. While reduction of public expenditures may be pursued in the short run with a view to economic stabilisation, expenditures are in the longer run likely to rise if government is to perform the necessary activities in support of sustainable growth. As noted above, public spending aimed at reducing the impediments to growth implied by inadequate economic infrastructure (such as lack of access to electricity or an inadequate road structure) and insufficient social services (such as education and health) is of major importance in developing countries. In sum, closing the fiscal gap is of critical importance, but focus must be on revenue and the effectiveness of public expenditures rather than on mere size.

Increasing government revenue. In the early years of structural adjustment, particular focus was given to rationalising the export duty and import tariff regime in line with the liberal economic trade policies pursued. Such efforts can reduce revenue collection in the short run, but the expectation is that tariff rationalisation, including the reduction of evasion and avoidance, will be revenue-enhancing in the longer term. Simultaneously, efforts were made to

switch from taxes on external trade to domestic taxes (e.g. increasing excise taxes on certain items, such as petroleum, alcohol and tobacco).

The most widespread of these efforts has been the introduction of value added tax (VAT) to replace traditional sales taxes in a large number of developing countries over the past decade. The VAT has a number of distinct advantages, including that it reduces economic distortions, since traditional sales taxes at all levels of production and sales introduce a bias towards vertically integrated firms. Such a firm only pays the sales tax once. An element of self-control is also involved as firms have an incentive to require VAT paid on their purchases in order to subtract this from their own VAT due. As the VAT is more complicated to administer than traditional sales taxes, it has been argued that developing countries with limited administrative capacity should not introduce this tax. Experience to date shows, however, that despite initial opposition to the VAT from the taxpayers and some loss of revenue during the first six months of operation, this tax has been successfully introduced in several countries. Finally, in addition to the VAT, efforts are being made in many developing countries to increase revenues from direct taxation, such as business and corporate taxes and some form of personal taxation, typically payroll taxes.

Despite the above efforts to increase public revenues, tax revenue in developing countries remain low; the average of total tax revenue is about 20 per cent in sub-Saharan Africa, far below the average for OECD countries of about 35 per cent. Thus, the key challenge faced is, as already alluded to above, to increase taxes while at the same time trying to minimise their distortionary nature. This is so since the negative growth impact of inadequate provision of public services may well thwart growth in the long term. It follows that expanding the tax base is also an important challenge, and substantial efforts are required to enhance the effectiveness of tax

administrations in many countries. This include the introduction of self-assessments, substantial training of staff in revenue authorities and computerisation of, e.g. tax registers to allow checks of taxpayer information across different types of taxes. Such efforts at institutional capacity building are costly and of longer term duration, and as such open up many avenues for aid, including technical assistance, to be of use in furthering growth.

Expenditure management. The other way to close the fiscal gap in the longer run is to make public expenditures more effective. Expenditure reduction was at the forefront of adjustment programmes from the start. This was due - in part - to the fact that substantial expenditure reductions can be achieved at a faster rate than increasing revenues and hence, was the only way to quickly alleviate the fiscal gap and the attendant stabilisation problems. It also reflected the consensus that some expenditure items were not conducive to growth, including, for example, the support given to state-owned enterprises. On the other hand, privatisation was pursued as an efficiency enhancing policy, and in this area there have been notable achievements. In many developing countries a large number of enterprises have been privatised and the most important of those remaining are public utilities, such as electricity and water. The extent to which the private sector can be involved in the provision of “public” services in future remains a much debated issue.

Turning to the public sector wage bill, there has been retrenchment of civil servants in many developing countries. Yet, the need for increasing the numbers of, say, nurses and school teachers has in many cases become apparent. In addition, the need to increase remuneration is by now critical, as salary levels are typically too low to attract professional staff for the civil service.

It is difficult to draw general lessons from civil service reform in developing countries, as the critical issues of further reforms of the public administration vary widely from country to country (see also Berg 2000). Nevertheless, consideration of public expenditure issues can usefully be split into three levels: (i) the issue of aggregate fiscal control, i.e. controlling the size of the fiscal deficit to be within a realistic short-run macroeconomic framework; (ii) the strategic allocation of expenditures across different sectors; and (iii) the effectiveness and efficiency of expenditures within a given sector or sub-sector. Much success has been achieved regarding aggregate fiscal control over the past decade, but many challenges still remain in addressing the last two points.

This can be illustrated by the fact that the cash budget system which has enabled many countries to maintain aggregate control has in many cases had an adverse impact on budget planning and implementation. Actual expenditure allocation has varied substantially from month to month, implying the budget process in many aid dependent developing countries has more or less broken down. The result is that the state budget does not work as a planning tool, as actual expenditures within any given sector tend to be very different from the budgeted allocation. In addition, most budgets in aid dependent developing countries do not account for all or even most foreign aid. It is channelled directly to end-uses, completely by-passing the government. It has therefore become very difficult for political decisionmakers to play their role in ensuring that government policy priorities are reflected in the strategic allocation of actual public expenditures across different sectors. Furthermore, the break-down of the budget process has made it difficult to develop the necessary transparency over public expenditures and maintain accountability for these. Public expenditure reviews (PER), typically led by the World Bank, has been the main instrument

with which to try to address such issues, and this instrument being critically discussed in Berg (2000).

Longer-term planning of all expenditures are key to improving the effectiveness and efficiency of public expenditures and hence, to improving the results obtained (such as increases in the number of children who receive primary education or health care). In aid dependent countries, foreign aid finances more than half of all expenditures and donors may therefore appear to be legitimate stakeholders in the process of budget planning and implementation, although their role is properly confined to ensuring transparent procedures and accountability to the local people. With the move to new aid modalities, particularly the adoption of sector programme support by many donor agencies (see Andersen 2000), external assistance is becoming an integral part of public expenditures. While the allocation of total public expenditures, including both governments own resources and foreign aid, has always been important in any assessment of public expenditures, these new aid modalities bring out such issues much clearer. Moreover, efforts are now being made in a number of countries to include sector programmes in a medium-term fiscal framework, which includes all public expenditure financing and attempts to ensure consistency with the macroeconomic framework being pursued.

As has been indicated above, the role of foreign aid in filling the fiscal gap is very large indeed, particularly in aid dependent countries. Furthermore, it is beyond doubt that foreign aid will continue to play a key role in helping close the fiscal gap for some time to come. Increasing the level of tax revenues takes a long time and needs to be carefully balanced with the objectives of encouraging economic growth. This requires skills and experience which many countries do not possess. Thus, aid has a role to play.

The same goes - as is clear from this section - for the management and control of public expenditures.

4. Conclusions

The traditional macroeconomic rationale for foreign aid relates to its ability to supplement domestic savings, foreign exchange and government revenue, thereby contributing to higher economic growth. The economic processes envisioned presumes a simple Harrod-Domar context in which economic growth is driven by physical capital formation. However, as this chapter makes clear, the macroeconomic reality of foreign aid recipients is much more complicated. Three examples of complicating factors have been discussed: (i) the effects of aid on government fiscal behaviour, (ii) the problem of foreign debt and (iii) Dutch disease effects.

Over the longer term, rather than merely filling gaps, foreign aid should play a role in closing gaps. The merit of being increasingly able to finance investment with domestic savings, imports with export earnings, and government spending with government revenue, is obvious: reliance on foreign aid and (perhaps especially) foreign borrowing is diminished and economic policy autonomy is increased. Closing the savings gap entails, on the part of aid donors, financial and technical support for mobilisation of domestic savings (Kovsted 2000). Closing the trade gap entails export growth in excess of import growth (so the gap can be closed without reducing imports from present levels). Donors can support this endeavour by supporting a macroeconomic environment conducive to export growth, by helping to expand and improve the physical infrastructure, and by direct support for export activities, notably those of a non-traditional nature.

With respect to the fiscal gap, this can in the longer run be closed by increasing government revenue and improving expenditure management. But, unlike the savings and forex gaps, fiscal closure is a more delicate task; public expenditures may be critical for growth, but at the same time taxes come along with distortions. When closing the savings-investment gap, emphasis is on “ever” higher savings, so productive investments can be expanded. Similarly for the trade gap; since maintaining productive import is important, emphasis is on “ever” higher exports. In terms of the fiscal gap, however, where maintaining productive government spending is also critical, government taxation cannot simply be “ever” expanding since it brings about distortions and thus economic disincentives. Thus, closing the fiscal gap is a much more difficult job to do, and one in which donors and recipient governments will have to carefully balance the disadvantage of lower-than-needed government spending against the disadvantage of higher government taxation.

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Appendix

Export diversification, 1980 and 1994.

	1980		*1994*		*Change*	
	No. of exports	*Concent. index*	*No. of exports*	*Concent. index*	*No. of exports*	*Concent. index*
Overall						
Developed countries						
Mean	208	0.169	210	0.169	2.0	7%
Median	226	0.109	225	0.120	1.0	14%
Developing countries						
Mean	95	0.499	105	0.420	9.8	-12%
Median	83	0.467	90	0.375	8.0	-18%
Developing countries by region						
Africa						
Mean	58	0.565	57	0.544	-0.6	-1%
Median	47	0.534	43	0.565	-2.0	-5%
Asia and Pacific						
Mean	115	0.350	135	0.296	19.8	-6%
Median	97	0.303	152	0.241	11.0	-16%
Latin America and Caribbean						
Mean	106	0.436	112	0.323	6.1	-22%
Median	98	0.399	104	0.316	8.0	-25%
Middle East and North Africa						
Mean	109	0.704	130	0.562	21.4	-21%
Median	104	0.802	134	0.642	27.0	-22%

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	1980		*1994*		*Change*	
	No. of exports	*Concent. index*	*No. of exports*	*Concent. index*	*No. of exports*	*Concent. index*
Sub-Saharan African countries classified by policy change						
Large improvement in macro policies						
Mean	80	0.500	81	0.547	0.0	11%
Median	83	0.476	73	0.600	-15.0	21%
Small improvement in macro policies						
Mean	61	0.550	57	0.519	-4.0	-4%
Median	47	0.501	47	0.565	5.0	-7%
Deterioration in macro policies						
Mean	55	0.544	45	0.545	-9.0	2%
Median	43	0.456	37	0.485	-11.0	-15%

Note: Concentartion index ranges from 0 to 1, with lower values for less export concentration.

Source: UNCTAD (1996).