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Innovative Sources for Development Finance: Over-Arching Issues

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Abstract

In analysing proposals for new sources of development funding, there are several issues that arise across the board. What is the role of new sources in relation to existing overseas development assistance? Should we be seeking new sources that generate a double dividend? Can the key elements of a proposal be achieved by another route? What should be the fiscal architecture? Is there a modern transfer problem? It is with these general concerns that the present paper deals. Its aim is to bring to bear on *global public finance* the accumulated knowledge in the field of national public finance, and more generally public economics.

Keywords: development finance, international public finance, double dividend, fiscal architecture, development assistance

JEL classification: O2

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1 Introduction

Proposals for new sources of development finance are considered in detail in the project-related discussion papers. Each of them raises a number of distinct issues, which are properly discussed in the individual studies. But there are also over-arching issues. What is the role of new sources in relation to existing ODA? Should we be seeking new sources that generate a double dividend? Can the key elements of a proposal be achieved by another route? It is with these general concerns that the present paper deals with. Its aim is to set out a number of the common questions that arise in considering sources of new revenue for development finance.

One purpose of our study is to bring to bear on *global public finance* the accumulated knowledge in the field of national public finance, and more generally public economics. This process is two-way. Public economics has increasingly had an international dimension, as evidenced by the founding in the early 1990s of the journal *International Tax and Public Finance*. There has been a close link between public economics and development planning. However, changes in the world economy mean that a global perspective has to be built in from the start. For both national governments and for individual households and firms, we need to analyse public policy taking account of the inter-relations between countries. As was observed by Mendez, 'a critical element lacking in the fields of finance and international relations is a theory and system of international public finance' (1992: 11).

The application of the public economics approach leads one to ask a number of key questions. Those considered here are set out in the titles of sections 2-6. The aim is not to provide definitive answers, but to clarify the questions being asked and to suggest possible answers that are not immediately apparent. To illustrate the issues, I refer at different points to the seven schemes studied in the project. There is of course a risk that by considering together such disparate measures we may be confounding the issues. The different instruments raise different concerns. However, one of the key lessons of modern public economics is that it is often valuable—indeed necessary—to consider within a common framework different forms of government policy. The first two questions concern the specification of the proposals; the remaining three questions involve the economic impact of the proposals. In each case, precision requires a degree of economic reasoning, but every attempt has been made to render this accessible. Bearing in mind the dictum of Stephen Hawking that each equation halves the number of readers, there are no equations.

2 What is the role of new sources?

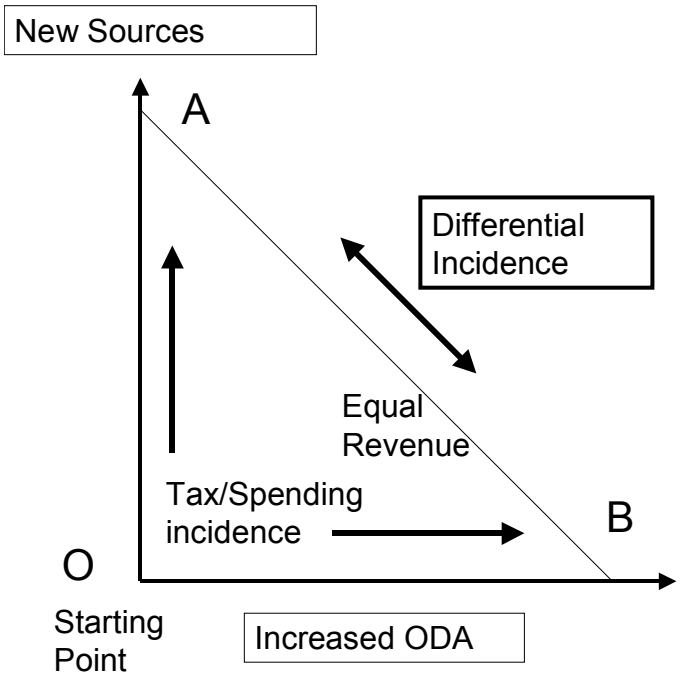
The first question we need to address is the relation between new sources of development finance and an expansion of ODA. Are these to be seen as alternatives? Many proponents of new sources view them as a way of achieving an increased flow of development resources without recourse to increased ODA. Other people see this as a reason for opposing the exploration of new sources: Tobin taxes or other new schemes would, on this view, weaken the resolve of rich countries to meet the UN ODA target. Or the new sources would 'crowd out' other forms of finance. The new global lottery may generate new revenue but reduce the receipts of existing lotteries that have been

used to fund development projects. According to this school of thought, the new sources should be a *net addition* to the flows of ODA.

In this study, both kinds of argument are treated, and it is important to distinguish between the case where the new sources are a net addition to the total of development resources and the case where they are a substitute for ODA. Figure 1 seeks to clarify the issue. We are agreed that additional resources are required to meet the development targets. This involves moving from the starting point O in Figure 1. This could be achieved by increased ODA, moving from O to B horizontally in Figure 1. Alternatively, it could be achieved by exploiting new sources, which is the move from O to A vertically in Figure 1. In both cases, we have a package of increased resource flows and increased development spending. On the other hand, proponents, or opponents, of new sources may *contrast* them with increased ODA. They may say that, holding the total transfer constant, the position A is better or worse than the position B.

The importance of distinguishing between the two types of movement illustrated in Figure 1 is a key lesson from the public finance literature. The incidence of taxation depends on what else is being varied at the same time. As Musgrave set out in his classic *Theory of Public Finance* (1959), one possibility is 'tax/expenditure incidence', where revenue is increased and spending goes up by the same amount. As shown in Figure 1, the introduction of new sources involves moving vertically. ODA remains unchanged and the benefit from the additional revenue is seen in the contribution to development goals. In this case, we have to consider the effectiveness of aid in achieving these goals and the absorptive capacity of the recipient countries.

Figure 1
Net addition to development resources or alternative source



Alternatively, we can move along a line holding development-spending constant, while varying the sources of funding. In Musgrave's terminology, this is 'differential tax incidence': the differential implications of different means of securing a given flow of resources. For example, if a global Tobin tax raises new revenue, and this is used to reduce the need for additional ODA, then it allows domestic taxation to be lower. The case for the new tax then turns on the differential impact of the two kinds of taxation—and their relative political appeal.

The distinction between two different types of incidence is drawn from the taxation literature, but similar questions arise with other proposals for new sources. Consider the global lottery discussed in Addison and Chowdhury (2003). Opponents criticise this proposal on the grounds that the burden falls predominantly on poorer people in rich countries and on poor countries, whereas the cost of ODA financed through income taxation is borne by the better off. This distributional analysis relates to a differential analysis of substituting a global lottery for increased ODA (moving from B to A in Figure 1). In contrast, a global lottery as an addition to existing funding may have quite different implications. The transfer from rich countries may be distributionally progressive in world terms, and the redistribution within the rest of the world may favour development. We may think differently about a lottery that moves us from O to A than about one which moves us from B to A. The International Finance Facility, discussed in Mavrotas (2003), involves an increase in ODA but of limited duration, timed to achieve the MDG by 2015, and donors making a pre-commitment, so that the promises can be 'banked'. We can consider the proposal either as a net addition to existing ODA (moving from O to A) or compare it with the alternative of a steady annual flow of 'un-precommitted' ODA of the same present value (comparing A and B).

2.1 Conclusion

When considering innovative sources, we need to be clear whether they are seen as a complement to expanding ODA or as an alternative. In the former situation, the case has to be made in terms of enhanced funding for development; in the latter situation, the case is being made that the innovative sources are a better way of funding a given development effort.

3 What fiscal architecture?

New sources of development finance potentially involve a number of actors. In some cases, private individuals acting alone, like Ted Turner, or the person putting coins in the UNICEF Change for Good envelope, can make the key decision. In many cases, national governments are involved. They can simply involve a country acting unilaterally. A single country could provide matching funds for private funding of development by its citizens. A government could decide that a fraction of the proceeds from its state lottery is to be allocated to development aid. A country acting unilaterally could decide to allow emigrants' remittances as a deductible item against its national income tax. But in most cases it is envisaged that there would be a multilateral agreement. Indeed, in the case of the creation of new Special Drawing Rights (SDR), the constitution of the IMF requires a super-majority (85 per cent) of members to ratify

the agreement before it can be put into effect. Where the source involves multilateral action, then two questions arise under the general heading of 'architecture'. In discussing this, I am presupposing that the participating countries have agreed on the form and scale of the action to be undertaken. What we are considering is the shape of the necessary institutions.

3.1 Flexible geometry

The first question is: Does the success and effectiveness of any particular proposal depend on complete adhesion of all countries or all donor countries? The natural instinct of many people is to assume that there is an inherent free-rider problem and that there has to be general, if not universal, agreement. In the present climate, with multilateralism under question, this presumption provides grounds for pessimism about the chances of making progress.

On the other hand, suppose that we start from the position that universal agreement may be impossible and examine the implications of going ahead with a subset of countries. The US has so far prevented the creation by the IMF of Special Drawing Rights, and in this case no action seems possible. But it does not follow that other measures are also blocked. With the other six proposals, it would be possible, at least theoretically, for progress to be made even without the agreement of all major countries. Here we can learn from the internal experience of the European Union (EU). The EU has in the past faced situations where one member state chose to 'opt out' of collective decisions. In these circumstances, flexibility in the resulting institutions has allowed the majority to respect the opting-out decision but still make progress towards the majority objectives. Partial adhesion has had costs. For instance, a member state opting-out of social protection may (or may not) enjoy a competitive advantage, exporting unemployment to the rest of the Union. These costs have to be placed in the balance. But the issue becomes one of balance, rather than of an absolute block on action.

We have to ask therefore in the case of each proposal whether we can in fact have a 'flexible geometry', where it is viable to go ahead with a subset of countries? The likely answer to this question varies from one proposal to another. The costs of incomplete coverage depend on the nature of the source of funding. Failure of countries to participate in the International Finance Facility means that the scale of the operation is reduced, but the proposal is not undermined. The same applies to the global lottery, or the global premium bond; indeed insofar as these schemes offer a new product (see Solimano 2003), those not participating may lose out. With global taxation, the free-riding problems become potentially more significant. Significant opting-out from a global carbon tax may erode the taxbase, as producers relocate to non-participating countries, and expose participating countries to intense lobbying from domestic interests. With a currency transactions tax, ease of relocation of financial activity depends on how extensive is the taxing jurisdiction. The larger the jurisdiction, the less elastic the response, and hence the greater the revenue potential.

3.2 Fiscal architecture

The second question concerns the institutional arrangements under which multilateral action takes place. Where countries are acting in concert, then the organizational

structure is important, as is illustrated in this section by reference to global taxation. A flow chart for national taxation is shown schematically in Figure 2. National governments determine the rates of taxation and the taxbase. Individual taxpayers pay the taxes to the government, which both enforces payment and is in turn accountable to the electorate. Many taxes involve intermediary agents. The individual taxpayer, for example, pays the aircraft departure tax to the airline, which then accounts for the revenue to the government. Employers collect payroll taxes. Retailers or wholesalers collect excise taxes.

One evidently cannot apply exactly the same process to global taxation (Figure 3). We have both global institutions and national governments, and it is the latter which have to agree to the taxes being levied and which are accountable to their electorates. It could indeed be that the global tax is treated as simply a glorified domestic tax, with the revenue being forwarded by national governments to a global spending body (the heavy lines in Figure 3). But there are more possibilities, as shown by the dashed and dotted lines. If there were an international air transport tax determined at the global level, then the airline could transfer the money, not to the national government, but to a global tax authority, in which case the new source of finance would bring a new actor into play. The dashed lines in Figure 3 show this. Whether or not such a world tax authority is envisaged is one of the questions that have to be considered. (This may be different from an international tax organization, see Tanzi 1999.) The feasibility of creating such a tax authority depends on the universe of taxpayers. In the case of airlines, there is already an international organization (IATA) and the international air travel tax could be collected by this body. A world tax authority could not deal with taxes paid by individual households, but one could envisage it operating a tax levied on multinational corporations, which would have to be registered where their cross-border activity exceeded a certain amount (just as there is an exemption level for VAT registration in national systems). In the literature on the corporation tax, one of the arguments for such a taxbase is that the status of incorporation confers benefits on organizations adopting this legal form. It is normally agreed that this does not justify present levels of corporate income taxation, but a more modest rate of global corporation tax could be seen as a form of benefit taxation for engaging in cross-border economic activity.

Moving in the opposite direction from the introduction of a world tax authority is the case shown by dotted lines in Figure 3, where national governments retain not only control over the administration of the tax process but also discretion over the tax rates. In this case, participating governments would agree on their national tax liability but retain freedom to decide how the revenue is to be raised. This would in effect be applying the principle of subsidiarity adopted by the European Union. To give a concrete illustration, suppose that the participating governments agree that each country should pay a tax related to national carbon emissions. This determines the amount that each participating country has to pay, but the national government would remain free to raise the revenue in whatever manner it thought fit. The national government might consider, for example, that a tax on air journeys was unfair on those living in remote rural areas, and choose for domestic reasons a different taxbase. We would then have a two-tier structure, with the national tax obligation requirement being agreed multilaterally, but the tax implementation being chosen locally. Countries with more emissions would pay more total tax, but this would not necessarily mean higher fuel taxes. Income tax or a broad-based VAT could be raised instead. One reason why, under the subsidiarity architecture, a national government may choose a different taxbase is

that it faces political opposition to a particular form of taxation. The fuel tax protests of 2000 in Europe provide a good illustration.

Figure 2
Fiscal architecture: national taxation

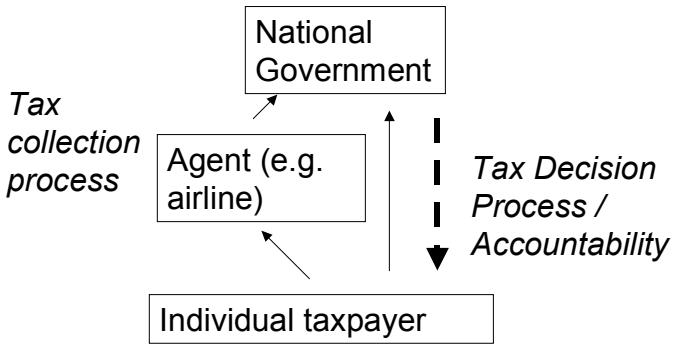
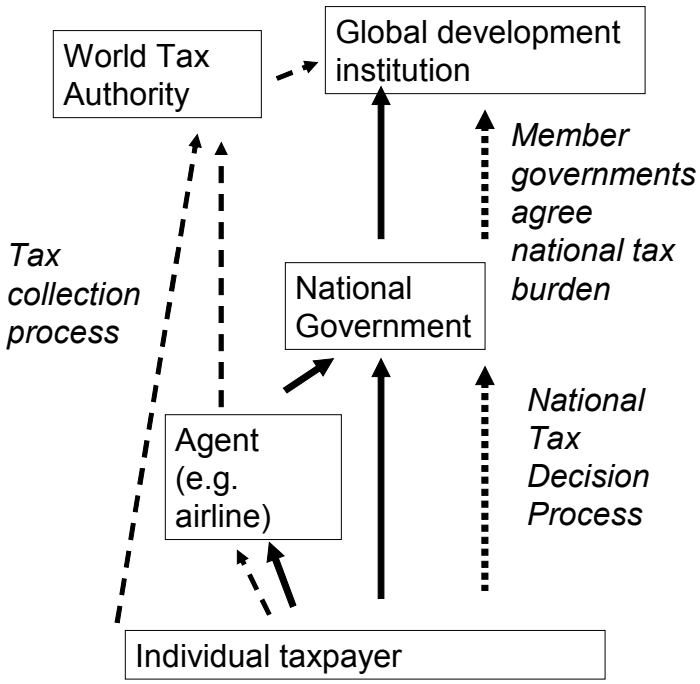


Figure 3
Fiscal architecture in global setting



3.3 Fiscal federalism

The United States and other federal states, such as Canada and Australia, came into existence by a voluntary adhesion of previously sovereign states. The formation of the United States of America represented a pooling of sovereignty, just as the acceptance of a global responsibility for development involves some limitation on the freedom of action of national governments. This leads us to ask what lessons we can learn from the extensive literature on fiscal federalism, and this is the subject of Boadway (2003). The reader may object that fiscal federations involve a degree of symmetry among participants that invalidates the application to the global context, where it is the inherent asymmetry in the world that generates the very problem with which we are concerned. But many of the federations that came into existence involved participating states that were unequal to a significant—if not the same—extent. Much of the debate about federal finance is concerned with the treatment of unequals: the design of equalization formulae.

3.4 Conclusions

Proposals for new forms of development funding raise important issues of institutional shape. In designing the architecture of global fiscal system, there is considerable scope for choice and it should not be assumed that all depends on universal support by donor countries. As the references to 'flexible geometry' and to 'subsidiarity' illustrate, we can learn usefully about the range of alternatives from the experience of supra-national groupings such as the European Union. The parallel with the public finances of federal states seems worth exploring.

4 Leaky bucket or double dividend?

As Arthur Okun expressed it in his book *Equality and Efficiency* (1975), transfers are made using a leaky bucket. To raise US$10 billion for new development purposes may cost more than US$10 billion. Put another way, the marginal cost of US$1 extra public funds for development may be more than US$1, because taxes and other interventions distort economic decisions. 'The cake gets smaller as we seek to share it out.' On the other hand, there are arguments, usually put under the banner of 'double dividend', that there may be efficiency gains, so that the amount in the bucket is actually increased. And the literature on the marginal cost of public funds has shown that there are circumstances when the marginal cost of US$1 is less than US$1 (see Atkinson and Stern 1974; Fullerton 1991 and Sandmo 1998). In this section, I consider these two different perspectives.

Why are buckets leaky? The first source of leakage is the cost of administration. Currency transactors may pay $X billion in tax but $(X-A) billion is the net revenue, where A is the cost of operating the tax collection and enforcement agencies. It may, for this reason, be preferable to raise an existing tax, such as income tax, rather than to institute new taxes with all the fixed costs of administration. The second source of leakage is that a new revenue source may *crowd out* other sources of development funding. One of the lessons of public finance is that in calculating the change in revenue resulting from an increase in one tax, one has to take account of the possible impact on

the revenue from other taxes. A good example would be an international tourist tax (not considered in this study). As Clunies-Ross (1999) points out, tourism is an important source of government revenue for a number of poor countries. To the extent that visiting tourists have less to spend after they have paid the tourist tax, these countries will be receiving less sales tax on the purchases made by tourists and would have to be compensated before the tax yields net additional revenue. Similarly the introduction of a global lottery will affect national budgets. Part of the customer base will be drawn from existing national state lotteries, reducing their revenue. Part will be drawn from spending on private gambling subject to national taxes, so that fiscal revenue will fall.

But these are not the only potential leakages. Most taxes have an impact on the decisions of taxpayers apart from the pure effect of reducing their incomes. An income tax may cause people to work less hard, or it may cause them to work harder to maintain their level of expenditure. In the conventional public finance format, there is a deadweight loss, or excess burden associated with taxation. The currency transactions tax causes people to avoid activities that attract the tax. They will, for example, be inhibited from switching their investment portfolio away from domestic securities towards those denominated in other currencies. This has an efficiency cost, since they are not allocating their investments according to the return at the margin. In the case of the income tax, the choice between income and leisure is distorted (this applies whether the tax causes the person to work more or to work less). Moreover, there is a presumption that the distortionary cost increases with the tax rate. The distortion is much more significant with a transactions tax rate of 20 basis points (0.2 per cent) than for one with a rate of two basis points (0.02 per cent). This may be an argument for seeking a new taxbase, rather than increasing existing taxes such as income tax. If one adds to an already high tax, then the efficiency loss is larger.

Adjustments in behaviour, in turn, may induce market reactions. If a tax on carbon use is passed on in higher consumer prices, then demand will shift away from goods that are intensive in their direct or indirect use of fuels. This will make worse off those people who cannot shift easily from working in those industries, as well as those whose budgets are particularly weighted towards those goods. The ultimate incidence of the tax may be rather different from its initial incidence. In order to establish this, we need to follow through the full general equilibrium effects, allowing for market clearing. There may be effects on prices, as discussed in section 4.

4.1 A double dividend?

The standard analysis of tax incidence is indeed based on examining a world of perfectly competitive, perfectly functioning markets. In such a ‘first-best’ context, government intervention—whatever its distributional advantages—has an efficiency cost. In the currency transactions tax example, if it were not for the tax the market would be efficient. The economies of the world are not however well characterized by perfectly competitive, perfectly functioning markets, and one of the major contributions of modern public economics has been to explore the implications of market failure. This has led to arguments that taxes may serve a corrective function: that the excess burden may become a benefit. The classic example is a corrective tax on environmental external diseconomies. A tax on the consumption of goods that harm the environment has a positive allocational effect, switching spending away from polluting goods towards those causing less or no environmental damage. In these circumstances,

switching behaviour is desirable. Moreover, if the revenue is used to reduce other taxes that have a negative allocational effect, we have a 'double dividend' (for overviews, see Goulder 1995, and Sandmo 2000).

The double dividend can arise in the present case in two ways. If the new source is seen as an alternative to ODA, then it can both make its own efficiency contribution *and* allow a reduction in the taxes presently used to finance ODA. This is a good example of the differential incidence argument in operation. Taxing air transport will not only reduce the environmental damage of tourism but also allow the income tax to be reduced, so making staying in the office financially more attractive at the margin. Taxing carbon may allow payroll taxes to be reduced, leading to a fall in unemployment. There is an 'employment dividend' as well as an 'environmental dividend'. The second possibility is that the new source is a net addition to development resources. In this case, the double dividend consists of the reduced environmental damage *and* the benefit from achieving the development goals.

4.2 Questioning the double dividend argument

The double dividend idea appeals to the imagination. However, one has to ask why, if a new revenue source can generate a positive sum outcome, have national governments not already adopted such a policy? Why do OECD countries not operate lotteries to raise funds to finance their ODA? If a carbon use tax would reduce external diseconomies, why is this not already reflected in domestic taxes? If governments could reduce unemployment by a switch in taxation, why have they not already done so? To this central question there are several responses. Here I consider two. First, in a dynamic world there may well be unexploited opportunities. Second, it may be that the dividend is global rather than national.

In a dynamic world, new opportunities are always arising and reaction speeds are not instantaneous. It takes time for new policy needs to become apparent and for governments to react. A good example is provided in the present context by the issue of remittances. The arrival of immigrant workers in a city creates a demand for money transfer services. If entry into this industry is slow, then a few firms, able to extract monopoly rents, may dominate it in the early stages. Government policy to encourage competition in the sector can increase the proportion of the transfer that arrives in the destination country. In this case, competition policy may combine with development policy to yield a positive sum outcome.

4.3 A global double dividend?

National governments may not impose corrective taxes because the benefits accrue disproportionately outside their boundaries. The switch from general taxation to carbon use taxation may be positive sum globally but negative sum nationally. The revenue calculations of governments take account only of receipts and payments to the national treasury. The impact of spillovers from one state to another is a staple of fiscal federalism. Under certain circumstances, local governments may under-supply public goods that benefit people living outside their borders; and they may over-tax where taxpayers come from outside. There are fiscal externalities. In the present case, there is a possible undersupply of fiscal correction to external diseconomies because the costs

spill over to others. It could be said that we have externalities squared: there is a possible undersupply of fiscal correction to external diseconomies because there are externalities in these very costs.

How is this potential argument for additional environmental taxation affected by the fiscal architecture? We are presupposing that the tax is indeed levied on individuals and firms in the form of a carbon levy (or other environmental taxbase). Suppose, however, that we have subsidiarity, where the burden on national governments is determined by their carbon emissions, but the national governments are free to decide how to raise the revenue. As noted above, they may for political or other reasons choose another taxbase. It is still, however, the case that the government faces a financial incentive to reduce its emissions by other policies, such as auctioning emission permits or regulation.

4.4 Conclusion

The calculation of the leakage, or extra dividend, is a complex matter. Depending on the circumstances, it may strengthen or weaken the case for new sources as opposed to existing taxes. The framework needs to be broadened to recognize the departures of real-world economies from the textbook world of perfectly competitive, perfectly clearing markets with full information. These departures may mean that there is a double dividend, where new taxes have a beneficial impact on resource allocation. Moreover, the double dividend may be global in character, not taken fully into account in national decisionmaking.

5 Is there a transfer problem?

Economists worry about the effect of policy changes on market prices. A substantial resource transfer between countries may lead to changes in the prices of different goods—those exported and imported, and those not traded—that have implications for recipient and donor countries. These price changes may undermine, or re-enforce, the benefits from the original transfer.

Keynes addressed this problem after the First World War, when he was concerned with the impact of reparations being paid by Germany. He identified the 'transfer problem' that a country making a transfer might suffer an additional loss through a shift in demand against their products, causing the terms of trade to turn against them. The 'terms of trade' refer to the price of a country's exports divided by the price of its imports. If the terms of trade worsen, then a country has to export more units to get the same number of units of imports. Applied to transfers for development, this would mean that the recipient countries could enjoy a further benefit from improved terms of trade, if demand switches towards the products they produce. As clarified by Ohlin (1929) and subsequent writers (see Bhagwati and Srinivasan 1983: Lecture 12 and Brakman and van Marrewijk 1998), international trade theory shows that the direction of the terms-of-trade effect depends on the relative marginal propensities to consume in the donor and recipient countries (how much out of an additional US$1 of income is spent on home and on imported goods) and the magnitude depends on the price elasticities.

It may be tempting to dismiss the terms-of-trade effects as of only footnote importance. However, international trade economists take them seriously. Referring to the inflows of

loans to the US in the early 1980s, Krugman and Obstfeld say 'the transfer effect was a major contributor to the large temporary improvement in the US terms of trade' (1994: 102). According to them, US residents spend about 80 cents of a dollar of additional income on US goods, whereas foreign residents spend only 10 cents. What then is the relevance of the transfer problem in the present context? First, it should be noted that, as far as the impact on recipient countries is concerned, the issue is only relevant when new sources of funding are a net addition. (When considering the differential effect of new sources versus increased ODA, the total size of the transfer is assumed constant.) The transfer problem arises when we contemplate increasing the scale of transfers. In that case, we have to consider the use made of the funds. Here the balance between investment and consumption may be significant. If the transfer is largely used to fund investment, then the pattern of demand may shift towards manufactured capital goods exported by the donor countries. (This is of course one of the possible functions of the practice of tying aid.) Account has also to be taken of the intertemporal impact. If there is a process of catch up over time, then the production possibilities of developing countries will come to resemble more closely those of rich countries, and the terms-of-trade effects will become smaller. If the pattern of transfers is brought forward, as with the International Finance Facility, then the terms-of-trade effect may be accentuated relative to a smoother time path. This may not outweigh the advantage of earlier disbursement, but needs to be put into the balance.

The transfer problem also potentially affects the donor countries, and this may be the case even when the total transfer is held constant. If we consider the differential effect of new sources and increased ODA, then they may impact on different income groups. In her analysis of the transfer problem, Chichilnisky (1980) distinguished two income groups in the donor country, and identified circumstances in which the recipient country only gained if the poorer group in the donor country were made worse off. Reduced international inequality was achieved at the expense of increased within-country inequality. Put differently, this is another example of the possibility that, when we allow for the changes in market-clearing prices, the ultimate incidence of a new source of funding may differ from the initial incidence.

5.1 Absorption and the 'Dutch disease'

For a small developing country, with no specific natural resources, it may appear fanciful to suppose that its receipt of increased aid could affect the world prices for the goods it exports and imports. As commonly assumed in economic analysis, many countries are 'small', facing fixed world prices. If they wish to import new investment goods, then there is an unlimited supply on the world market. In this sense, there is no problem of 'absorbing' the increased flow of funds.

The position is however different once we allow for non-traded goods or services, the prices of which reflect domestic supply and demand (see Corden and Neary 1982). To the extent that the transfer increases demand for the non-traded good, its price tends to rise. There is a real appreciation, in that domestic goods/services become more expensive relative to the goods traded on the world market. This can cause the movement of labour out of the sectors producing traded goods. This movement is in the reverse direction from that required for development and worsens the foreign balance. As is noted in Mavrotas (2003) and Solimano (2003), domestic policy has to take

account of the possible impact on domestic demand and inflation. As with the transfer problem, the issue potentially applies to all proposals for increased transfers of aid.

5.2 Stimulus to world economy

The treatment by Keynes of the transfer problem was 'notable ... for the classical, or pre-Keynesian, way he analysed the problem, concentrating on relative price movements' (Skidelsky 1992: 309). The existence of involuntary unemployment and excess capacity can however change the conclusions, in that the responses may be purely in terms of expanded output, not price changes. One of the arguments for the creation of SDRs is indeed that they would provide a macroeconomic stimulus to the world economy. This depends on the extent to which the transfers of SDR allocations from rich to poor countries lead the latter to increase spending. Clark and Polak (2002) argue that a regular allocation will not lead to a rise in spending, most countries adding to their reserves (which in itself has a development benefit), but this may not apply where there are substantial transfers of SDRs to poor countries.

Macroeconomic stimulus is another form of potential double dividend. Again we have to explain why this cannot already be achieved. The macroeconomic literature has extensively discussed the problem of international policy coordination failure. The existence of failure does not mean that policy coordination necessarily leads to efficiency gains, but it is possible that there may be a global positive sum outcome to a creation of additional liquidity. Global spillovers apply at the macroeconomic as well as the microeconomic level. More concretely, those European governments seeking a way to re-stimulate their economies should be particularly aware of the potential mutual benefit. Increased flows of resources for development, generating additional world demand, may allow Europe to escape the constraints of its macro-policymaking.

5.3 Conclusions

Consideration of the effect of new sources of finance takes us into the working of the international economy. Substantial transfers may lead to changes in the terms of trade with implications for both recipient and donor countries. They may affect the relative prices of traded and non-traded goods, causing domestic inflation. Even holding the level of transfers constant, different sources of funding and different timing of the flows may have different effects on demand patterns. Once we allow for involuntary unemployment and excess capacity, there may be a global double dividend through stimulus to the world economy. Such a macroeconomic bonus would benefit both developing and developed countries.

6 Equivalent measures?

Policy tools may look different but have equivalent effects. International trade theory and public finance have demonstrated a number of important equivalences. A government can set a tariff on the import of a commodity, or it can set a quota and auction the import permits. If the quota is set at the level of imports generated by the tariff, then in a competitive economy the impact is the same, including the revenue to the government. An income tax with an exemption of all savings is equivalent to a

uniform value-added tax (see Atkinson and Stiglitz 1980). Such equivalences operate at the level of the impact on individuals and firms. It is, of course, quite possible that individuals and firms perceive them differently (an example is given below) and that their economic consequences are different. Moreover, the political attractiveness may be quite different. Recasting a proposal in an equivalent form may convert it from an election-loser to a vote-winner.

In the present context, consideration of such equivalences may allow one to see existing proposals in a new light or the creation of new ideas. Pursuing the parallel with tariffs and quotas, we can see for instance that there is a potential equivalence between a global carbon tax, considered in Sandmo (2003), and the auction of tradeable permits (see Sandmo 2000 and Pearson 2000). Attention has focused on the global carbon tax, but another possibility is to auction permits, to produce the same level of revenue, and, in a world of certainty and perfect competition, the same level of pollution. There are reasons why in reality the two approaches may differ, but we need to ask, when considering the global carbon tax proposal, whether it is clearly superior to the alternative of auctioning permits.

A second example is provided by the discussion of the global lottery in Addison and Chowdhury (2003). The authors come up with the novel alternative proposal of a global premium bond, which is a government bond where the capital is maintained (in money terms) but the interest takes the form of lottery prizes. Experience in the UK suggests that this appeals to a different market, with the middle- and upper-income groups participating whereas they do not play the national lottery. Yet the premium bond is financially equivalent as a transaction to placing money in a regular savings bank and drawing out the interest each month to buy lottery tickets. There are, of course, differences in the prize structure and level, and in the tax treatment, but we need to ask what lies behind the differences in reaction.

The third example concerns the International Finance Facility. Understanding this imaginative proposal is aided by considering whether or not it is equivalent to a particular time path of ODA. As noted earlier, it involves bringing forward the disbursement of funds, but it goes beyond a variation in the time shape in that donors are precommitted. We have therefore to ask how far the guarantee of funding by donor countries increases the net value of ODA. How much net additional resources are generated by the certainty of underwritten flows rather than annual allocations by donor governments?

6.1 Conclusions

Consideration of the equivalence of different policy instruments is a good discipline and a source of new ideas. For each proposal we have to consider how far there are equivalent ways of achieving the same objectives.

7 Conclusion: contribution to the policy debate

The answers given to the questions posed in this paper have been given in the conclusions to each section. I hope that they will help provide the reader with a framework to assess the contributions of the different proposals analysed in the various

project-related discussion papers. Here I end with a reflection on the role of economic analysis in the policy debate. The proposals for new sources of development funding have to be seen in a political context. They have been put forward in the light of political objectives and perceived constraints. This does not imply that economic analysis should accept these objectives uncritically or that it should be bound by these constraints (see Boadway 1999). But economic analysis has a role to play in elucidating the implications of proposals for the achievement of the professed objectives, and in identifying the costs of political constraints. We might, for example, conclude that the constraint that the taxbase be chosen by national governments weakens the contribution of a carbon tax to environmental goals and hence reduces the double dividend. We might for example conclude that the objectives of the global lottery are better served by designing a prize structure that does not compete with that of national lotteries. Analysis of this type is intended to contribute to the public debate.

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