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# Dedicated Road Funds: A Preliminary View on a World Bank Initiative

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## Abstract

In the past, Road Funds have been criticized as inconsistent with effective expenditure control, as distorting the allocation of public sector resources, and as incompatible with efficient management of government resources. This paper considers whether there is a case for a more benevolent view of the new "second generation" dedicated Road Funds, which have emerged in recent years. The paper concludes that, where a Road Fund pursues a genuine purchasing agency approach, then in principle it can be an efficient means of delivering road maintenance and, perhaps road capital expenditures. But a formidable list of institutional and financial requirements would have to be satisfied for a dedicated Road Fund to be appropriate. These conditions are more likely to be satisfied in developed economies, with efficient budgetary systems already in place. In many developing countries, the better solution may be to reform overall budget institutions, procedures and practices. But if the institutional and financial requirements for an efficient fund can be met, a Road Fund may be appropriate. The question is just how often the right conditions will arise.

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**Dedicated Road Funds: A Preliminary View**
**On A World Bank Initiative**

## I. Introduction

In recent years, there has been a resurgence of interest in dedicated Road Funds. A dedicated Road Fund (RF) is normally constituted as a separate fund, outside the central government's general budgetary framework, and charged with responsibility for financing road maintenance services, and in some cases, capital expenditures. In many, but not all instances, the road maintenance element is financed, wholly or in part, from user charges rather than general revenues. The World Bank launched a Roads Management Initiative (RMI) in 1988 which, inter alia, encouraged the development of road funds. As it has evolved, the World Bank has encouraged the development of "second-generation road funds," emphasizing their transparency and accountability qualities and their financing by user charges. The World Bank seeks to establish RFs that avoid some of the problems associated with the earlier examples created in the 1960s and 1970s.

In the past, critics have often opposed the creation of RFs—primarily on grounds of inconsistency with macroeconomic (and particularly expenditure) control, as distorting the allocation of resources available for public spending, and as incompatible with the requirements of efficient cash and financial management. This paper considers whether a different view could be taken of the second generation road funds now emerging.

## II. Definition of a Road Fund

It may be helpful to start with a definition of a RF found in an article by Rupert Pennant- Rae and Ian Heggie, *Finance and Development* (Dec. 95), describing the Roads Management Initiative, which defines the role of Road Management Boards or Road Funds, as follows.

Four key principles are set:

- involving road users in the management of roads;
- securing enough money for road maintenance year after year;
- ensuring that all parties know what they are responsible for; and
- establishing a system for managing roads programs with clear accountability.

As general principles, one cannot object to such a transparent, predictable, and accountable framework, which ought to be consistent with the requirements of good governance. Nor can one object to the principles set out in more detail in the WB technical Paper No. 275 on "Managing and Financing of Roads" on the financing of the RFs:

"To influence demand and to provide a basis for linking revenues and expenditures so as to create a hard budget constraint, charging instruments should be:

- Related to road use
- Easily recognizable
- Easy to separate from taxes and other charges
- Simple to administer (e.g., not subject to widespread evasion, avoidance, and leakage)."

While being sympathetic to the principles, one might, however, be concerned about the relevance and realism of the approach, particularly in the developing countries toward which the Roads Management Initiative is targeted. The New Zealand model (as in other areas of public expenditure management) perhaps comes closest to meeting the Bank's paradigm: but does even it meet all the principles set out in the Technical Paper? By contrast, what can reasonably be required from a less developed country that wishes to set up a RF?

## III. Road Funds and the Traditional Approach to Public Expenditure Management Reform

In the recent past, IMF technical assistance missions have given their views on RFs emerging in African, Middle Eastern, and FSU countries. Such advice has typically been to avoid the creation or continuance of off-budget institutions that can undermine expenditure control and distort resource allocation. However, such advice may have reflected only the traditional macroeconomic focus, rather than taking into account certain microeconomic or institutional development perspectives. Such advice may also have been influenced by earlier responses to older-style RFs, rather than to the "second-generation RFs." For like many areas of public expenditure, transport issues require that not only policy concerns, but also certain organizational, budgetary and financial management aspects, be taken into account.

In considering the advisability of RFs, the following questions arise:

- What form of institutional arrangements for both the determination and the delivery of road transport policies will best serve the macroeconomic need for setting an affordable public expenditure total and ensuring expenditure control?

- Will those arrangements at the same time promote efficient resource allocation in deciding on public expenditure priorities at the margin?
- Can they also ensure that microeconomic efficiency is vigorously pursued by the institutions responsible for delivering the policies, while meeting good governance, transparency, and effective financial control requirements?

Before narrowing down the subject, it may be useful to note relevant aspects of the Fund approach to budget preparation and public expenditure management in technical assistance missions.

- First, the setting of a macroeconomic aggregate as the affordable total within which the overall level of public expenditure should be contained is emphasized. The budget needs to cover all public expenditures, ideally General Government Expenditure. The aim is to avoid off-balance-sheet items, extrabudgetary funds, special accounts, suspense accounts, and similar mechanisms which Finance and other Ministry officials have come up with to bypass budget procedures or subvert expenditure control. To the extent that <u>any</u> special or Dedicated Fund is created outside the budget, one might be naturally "suspicious" of its role.
- The second important concern is the need for transparent and predictable institutional arrangements in which decisions on budget priorities are settled, a key element of good governance. This consideration has led to skepticism about, if not downright hostility to, arrangements whereby certain sources of revenues are hypothecated to certain activities, funds, or agencies. By safeguarding resources for one activity at the

expense of others, such arrangements seem likely to distort public expenditure priorities. However noble the cause of safeguarding resources for an area like road maintenance, it raises inevitable questions: if RFs, why not Health Funds, Higher Education Funds, etc.?

- Third, financial management issues need to be considered. Conventional public sector accounting is less likely to be appropriate, particularly where there is a user charge—while the full requirements of commercial accrual-based accounting may be beyond the capacity of existing employees. Where are the RF's cash balances deposited—in the Central Bank or a commercial bank? Does the government have access to them on an overnight basis to minimize its day-to-day borrowing needs? Can the government make wider use of the RF deposits? (If so, it may encourage owners of the dedicated fund to spend money inefficiently rather than risk it being borrowed or sequestered.) If there is some dedicated revenue source—for example—a user charge, there are also financial management issues about revenue collections. Separate revenue collection may be inefficient.

Yet, there are strong arguments for public sector reforms that seek to simulate the market disciplines of the private sector, and thus encourage the efficient and effective delivery of public services. These are particularly prevalent in the so-called Anglo-Saxon community—notably, but not exclusively in New Zealand, Australia, the U.S., and the U.K. These Anglo-Saxon reforms refer to several linked reforms often rooted in public choice theory and agency relationships:

- The desirability of separating policy determination from policy delivery;

- Privatization and commercialization of public sector activities, whenever possible;
- The creation of arms-length agencies for public service delivery, where commercialization cannot be achieved;
- Giving agencies a specific mission, measurable objectives or outputs, performance indicators and a global hard budget constraint on inputs; and
- Giving heads of agencies delegated managerial authority, by disengaging them from the restrictions of civil service wages and responsibility structures.

This argument for capturing microeconomic efficiency gains by creating agencies is more recent, and poses particularly interesting issues. For as soon the case for creating agencies is accepted, some difficult decisions need to be taken to put in place the institutional arrangements needed for an efficient, effective, and accountable agency, while also meeting the macroeconomic, budgetary, and financial management concerns. Some of the more obvious examples include:

- Can Dedicated RFs be justified only as a second-best solution when budgetary procedures have failed or are inadequate? If so, should not the focus be on putting in place efficient and transparent budgetary procedures, rather than adopting the inherently opportunistic approach of dedicated RFs?
- Can there truly be a hard budget constraint on RFs, if there is an own revenue source and an independent power to set user charges? If there is inelastic demand for the service and an implicit monopoly, how can rent-seeking behavior and inefficiency be

avoided? What sort of supervision or regulation is needed to prevent abuse of monopoly powers?

- What is the precise role of the Dedicated RF? Are the purchaser and provider roles separately delineated? Is it confined to a purchasing capacity? Or is it a more independent, less well-controlled government Ministry by another name?
- If an agency is to develop a quasi-market role and have part of its financing from an own revenue source, does it keep all or part of any excess above the level assumed when any transfer payment to it is set?
- Any relevant tax, fee or charge may well not be wholly independent from the government's capacity to raise other revenues. Do the efficiency considerations in hypothecating some tax or charge outweigh the implicit loss of maneuver at the margin in making fiscal management decisions?
- If the financing is mixed—part from general resources, part from user charges—is it sensible to apply any sequestration or across-the-board cuts to fund expenditures?
- One potential attraction of such an agency approach is the link between the volume and quality of service and user charge. But what damage is done to the efficiency of the agency model when the link is obscured, for example, if the user charge is raised for exogenous reasons?

## IV. The Pros and Cons of RFs

Dedicated RFs are not an end in themselves—rather they are designed as a means of delivering efficient road maintenance services (and in some cases, capital spending). The

central issue is whether, as a service delivery institution, they have some advantage over the conventional approach. Moreover, looking to the longer term in developed countries, it can be argued that they are not necessarily more than a half-way house, on the way to an approach where road maintenance is wholly commercialized and outside the public sector—rendering the issue of conventional budget versus RF no longer relevant. This may be the ultimate goal of the reforms in New Zealand.[1]

The practical question, however, is whether it makes sense to create such funds now, particularly in developing countries, and, if so, how they should be constituted. There are three key issues:

A. the case for a dedicated RF;

B. the institutional structure; and

C. the financing.

### A. When Might a Dedicated RF be Appropriate?

The first RFs seem to have developed out of a frustration with the shortcomings of conventional budgeting. The argument was essentially that nontransparent, poorly organized, or politically dominated budgeting procedures did not deliver an adequate service. Road maintenance, as a low-priority activity with few observable benefits, was a frequent casualty in budget-cutting exercises. In-year, there could be further cuts in provision, sequestration, etc. Earmarking was seen as a successful means of securing more resources for road maintenance.

The dangers of these earmarked RFs, which secured resources for one service at the expense of others, have been widely recognized. The case for what have been termed

[1] See R. Toleman, " Road Transport: How Much Does Government Need To Do."

"second-generation Road funds" seems to be broader. According to the paper by Gwilliams and Shalizi, it has two components. First, such RFs can "...compensate for political or administrative myopia and ensure the allocation of resources to a low profile economic activity with particularly high rates of return." Second, there are the microeconomic efficiency arguments for such funds, essentially those which favor an agency approach, with some form of user-charge financing.

While the analysis is appealing, the implications and interactions between the two arguments need to be carefully thought through. For in practice, it seems that a RF is less one single, well-defined institution than a number of different arrangements which may be usefully subdivided into several different models:

1. Post-war Trust Funds, often for capital expenditure on highway construction, in advanced countries like the United States and Japan;
2. The RFs established in the 1960s and 1970s in Africa—what Gwilliam describes as "old-style Funds"—essentially "paper" funds to protect resources for road maintenance.
3. RFs set up in the 1990s in former FSU countries, notably in Georgia and, a little earlier in Russia, partly in response to a tight budget position;
4. RFs which seek to pursue an agency model of service delivery for roads, as in the U.K. or Finland, but which are financed from general revenues;
5. RFs which reflect a desire to pursue an agency role and begin to commercialize road maintenance and thus are at least, in part, financed by user charges; examples include

the Road Funds in New Zealand and Sweden, and some African countries, like Zambia, Malawi, and Lesotho.

Funds like the U.S. Trust Fund for highway construction (1) are longstanding and not relevant to the RMI. It also seems to be common-ground that category (2)—old-style first-generation RFs—are to be eschewed. That leaves (3) the FSU models; (4) the pure agency model; and (5) the more complete Dedicated RFs.

- The FSU models in Russia and Georgia—category (3)—despite their recent origin, hark back to the first-generation old-style funds. Where they are fundamentally an attempt to elide from budgetary control by earmarking resources for a specific purpose, they do not merit support.
- Even where the conventional budgeting approach does deliver an adequate volume and quality of road maintenance services, there may still be a case for a dedicated RF. This is the category (4) described above. In developed countries, there may be agency benefits, for example, greater efficiency and accountability, to be captured from that approach. The experience in both the U.K. and Finland has been positive.
- Where the conventional budgeting approach does not deliver adequate road maintenance services, that does not necessarily imply the need or the case for a RF. The better solution may be to improve budget preparation techniques and work with the existing institutions. That will be particularly true where the preconditions for a successful, more independent, RF do not exist—for example if a RF were unable to meet the institutional requirements discussed below.

- Even if the institutional requirements can be met, a RF fully financed by user charges can be damaging to broader macroeconomic goals if general revenues are in any way dependent on user charges. For example, if fuel-related user charges were linked to general revenue-raising capacity, politicians may be unwilling to raise fuel prices both to increase general revenues and raise user charges for road maintenance. This interdependence is likely to be greater, the larger the importance of fuel taxes within general revenues.

To sum up, one might want to pursue RFs only:

a. where there are adequate budgetary procedures to capture the agency benefits. This may be done, independently of any user charge approach. However, the inclusion of a user charge element within the RF is generally to be desired, providing it has an acceptable price in terms of loss of macroeconomic maneuver; and

b. where there are inadequate budgetary procedures, but nevertheless the right expertise, as well as the political and financial circumstances, to make a RF a success. The meaning of "right expertise and political and financial circumstances" is considered below.

### B. Organizational Issues in Establishing a RF

In institutional terms, the advantages of RFs are clear. They provide a predictable source of finance for the maintenance and, under some models, the construction of roads. Too often, governments pressed for budgetary resources reduce the roads maintenance budget first, and the capital budget second, when the call comes for expenditure cuts. Road

maintenance has a low priority because few perceive the benefits and the cost of inadequate maintenance is not always immediately obvious. Developing countries may have little incentive to provide maintenance, if they think a donor will always come along to rescue them.

There can also be important transparency and accountability advantages in dedicated RFs. Transparency is enhanced to the extent that an appropriate objective-setting and performance measurement framework is adopted, complied with, and audited externally. The user charge can form a link between level and quality of service and price. Accountability is enhanced through the creation of a management board—particularly when the average Minister of Transport's tenure is typically less than the average time to construct five or ten miles of a new road.

With the right sort of administrative and financial management arrangements, RFs can enjoy the wider benefits of the agency model: the freedom to focus on service delivery and the resultant greater efficiency and effectiveness this provides.

Yet one must also acknowledge that there can be a huge gap between the above theoretical advantages and the actual experience of an agency. Some key questions have to be asked of any RF being set up:

- What is the real function of the RF? One of the World Bank's technical notes on RFs suggested the following: "RFs are financing mechanisms and not executing agencies. Their role is limited to channeling funds into a bank account held either at the central bank or in a commercial bank." Such an approach is desirable if interpreted to mean a purchaser/provider split, with the RF acting as a purchasing agency for road maintenance services. It is not, if it means old-fashioned earmarking of resources for

road transport expenditures outside the budget. As a minimum, therefore, a RF should be an agency with a responsibility for the purchase of road maintenance services—not a paper RF to earmark resources for one function outside the normal budget framework.

- Does the RF meet good governance requirements? Is it genuinely free of political interference? Some political dimension on capital expenditures is to be expected: lobbying for new roads is a worldwide phenomenon. But that should not inhibit or discourage the Road Fund authority from requiring a cost-benefit analysis of each project, and ranking such projects by rates of return. Further tests of financial affordability, including the recurrent consequences of the capital spending, should be required. Only where such tests are applied can the selection of capital projects be genuinely objective. Are such requirements in place or is the management board directly or indirectly politically controlled? Is its membership biased toward meeting certain regional needs at the expense of others?
- Can a management board be formed that is genuinely representative of consumer interests, without producer interests (whether Ministry, private sector, or trade union) also being influential? The danger of a fund being captured by producers can quickly outweigh any agency-type benefits.
- Are the sums in the RF wholly devoted to roads or is the RF merely a convenient "parking place" for monies which ministers plan to divert elsewhere? The experiences in some African countries illustrate the danger. In one case, monies were diverted to pay civil service salaries; in another case, the fund was abandoned when it became too

rich. The more one emphasizes the fund element or financing aspect of RFs, and the less a genuine agency role, the greater the danger.

- Does the form of organization lend itself to efficiency or does it remain in the traditional public sector mode? Just changing either the financing of road maintenance or the title of some section within a Ministry of Transport does not make it a genuine agency. (Indeed giving access to "guaranteed" financing through user charges may have a deleterious effect on efficiency.) Ideally, there needs to be the full panoply of mission statements, objectives, measurable outputs, performance indicators, running cost controls, etc. to gain all the benefits. Minimally, one might look for an accountable management board more than 50 percent drawn from the private sector, a mission statement, and some measurable performance indicators.
- Can one expect the advantages of agency organization to be achieved in RFs without a broader reform program elsewhere in the public services? Is it reasonable to imagine that such funds will deliver public services more efficiently, when other services are still delivered in a traditional mode? Can the enhanced financial management requirements, with more flexibility than traditional input controls, be competently handled by RF officials? (This touches on the rather wider problem of how far, how quickly, and how effectively the Anglo-Saxon reforms might be introduced more generally in developing countries.)
- Is the organization corruption-free? Can the stewardship of large sums of money be handled outside the safeguards of the traditional government framework? Is there some minimal set of agency rules that should be adopted?

- Does the handling of RF cash resources raise difficult issues; should all or part of any balances be available to meet the day-to-day cash needs of the government? What "sequestration" rights will the Treasury or Ministry of Finance have over the sums held in the RF?
- Is the RF independently audited?

### C. Financing Issues

While the examples in the UK and New Zealand have shown the considerable benefits of RFs, they have very different approaches to the financing. At one extreme, the U.K. agency is still wholly financed from general revenues. Theoretically, the absence of a link between sources of finance and the level and quality of services detracts from the benefits of such a model—in the sense that even more benefits could be gained, if there were also a user charge. In New Zealand, the RF is principally financed by user charges. While the agency benefits may be maximized in such an arrangement, when the financing is wholly or in part from user charges, there are potentially worrisome aspects from macroeconomic, financial, and budgetary management perspectives.

Dedicated RFs have traditionally been financed by a two or three part tariff:

- license fees charged for <u>access</u> to the road network which can be varied to reflect axle weight, etc., and thus take account of the physical and wider environmental damage (noise, pollution, etc.) caused by lorries;
- a fuel levy to take account of the <u>use</u> of the road network, with such road usage usually argued to be closely linked to road maintenance costs. Additional maintenance

for example to improve standards, reduce pothole damage, etc., can thus be paid for at the margin by additions to the fuel levy;

- in more advanced economies, toll roads are also a part of the tariff—though many developed (like U.K.) and developing countries (like Tanzania) still resist them.

In principle one can thus envisage the first source of user charges going to meet the cost of capital investment in the road network, while the second is related more to maintenance expenditures.

The application of user charges has a large number of theoretical attractions: to quote from Pennant-Rae and Heggie: "Revenues earned from the three financing mechanisms, which together would constitute a road tariff, could be funneled directly into a Road Fund for spending on maintenance as well as on new construction."

In practice, however, there may be some drawbacks:

- It may be better to distinguish between RFs covering road maintenance only and those that also cover capital spending. It is much easier to apply the financing principles to road maintenance, than capital spending. Capital expenditure raises issues of positive (and negative) externalities; of burden-sharing as between local, regional and national beneficiaries; and of public subsidies, for example, for roads to disadvantaged areas or to meet perceived defense requirements.[2]

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[2]On the other hand, some of the agency arguments would seem to suggest the broader responsibility would be appropriate, at least in developed countries, for creating the asset and then maintaining it.

- Most RFs seem to start with maintenance spending, with the existing appropriations forming the base for the expenditure level. This level of spending may not be so much appropriate as entrenched under conventional budgetary approaches.
- As long as the RF receives any resources from the budget, it must compete with other ministries for provision. There should be no automatic entitlement to "topping up" finance from general revenues, where user charge revenues prove inadequate.
- In theory, there should be a link between standards of road service and user charge to gain the transparency and accountability benefits. In practice, the fuel levy will form part of petroleum prices. So any link is at best indirect. An increase in petrol prices may arise for a number of reasons—higher oil prices, exchange rate depreciation, shortage of refinery capacity, etc.: thus the consumer of road services does not necessarily see a clear link between petrol prices and the level and quality of road maintenance.
- Moreover, petrol prices are often an attractive indirect tax handle; petroleum is a classic highly price-inelastic good, with attractive environmental benefits from higher prices (despite the inelasticity). Caution would thus be necessary in targeting the use of this tax handle for the operation of RFs, particularly when one might doubt that the financial link, is or can ever be, well-perceived by the consumer.
- As noted earlier, there is unlikely to be full independence between user charges and general revenue; to some extent, therefore, a RF wholly financed by user charges is likely to mean some loss of budgetary and thus macroeconomic maneuver.

- The suitability of the RF solution must vary from country to country; the capacity of the road user to meet all of the costs involved in road maintenance, let alone capital expenditure, might be weaker in some instances than that of the general taxpayer, for example, in countries highly dependent on oil revenues.
- Very strict and clear principles need to be defined for the shares of fuel taxation going to the RF and general taxation: in some RFs, the principles have been far from clear, obscuring not only the resources likely to be available for road maintenance but also the "separateness" of the RF.
- Most RF financing seems to apply to national roads with national user charges; but local/regional governments are typically heavily involved in road maintenance, further complicating the pricing issue.

## V. Conclusion

In summary, a Road Fund is not appropriate where it represents the earmarking of general revenues for one purpose, with the service delivery still pursuing a traditional model. Where a RF is a genuine attempt to pursue a purchasing agency approach, then in principle, it might be desirable. Whether it is desirable in practice will depend on certain institutional and financial conditions being met.

Can we define those certain conditions? Some minimum requirements can be applied.

- First, do the existing budgetary arrangements require a RF solution?
    (a) For developed countries following the simple agency approach (i.e., the U.K. or Finland model), there should be no objection. Such countries will usually be

seeking to capture the microeconomic efficiency gains from the agency model: the necessary macroeconomic, budgetary and financial management requirements are likely to be already in place. There should also be scope for such agencies to take on road capital, as well as maintenance, expenditures.

(b) Where there is to be a user charge also, it would be useful to ascertain whether the user charge would compromise the scope for effective fiscal and budgetary management. In most developed country cases, this is unlikely. Petroleum duties will typically form a relatively small part of the tax base. Any marginal loss of macroeconomic maneuver may well be less important than the gains from a clearer link between the level and quality of road services and petrol prices, particularly if the tax burden and tax system are relatively stable. Moreover, to the extent that full commercialization can be envisaged as the long-term policy goal, then with road maintenance outside the public sector, the arguments about any interaction between the user charge and general revenue raising capacity will ultimately not apply.

(c) For countries where existing budgetary arrangements are inadequate, there is a choice between (1) changing the budgetary arrangements (which may offer a quicker and more effective solution); and (2) putting a Road Fund in place, where there are adequate minimum organizational and financing requirements. The requirements are discussed below. But for many countries, this may be quite a hard test to pass. Correspondingly, in many situations it may be better to concentrate efforts on improving budgetary procedures.

- Can the necessary organizational requirements be defined? The minimum requirements would seem to be:
  - (a) that the RF is dedicated 100 percent to the task in question—and not simply a means of avoiding budget discipline, whether for roads or wider public expenditures;
  - (b) that it is in the form of an agency principally as a purchaser, not as a provider of services. Thus it should have, as a minimum, a mission statement, objectives, physical output indicators, and total input cost envelopes, etc. Ideally the service provision should come from the private sector. For many countries, this will be hard to achieve.
  - (c) that the financial management system of the RF can handle the more complex tasks involved in managing total cost envelopes, and associated accounting requirements. The government should have access to the cash balances for cash management reasons; and
  - (d) that there is a management board with a significant private sector presence but genuinely free from a producer (whether supplier or trade union) interest; the criteria must be objectivity and impartiality.

Ideally, one might also want to see a high degree of cost recovery through user charges. The theoretical attraction is clear. But, in many, if not most cases, this is unlikely to be possible, at least initially. In such cases, one would wish to see any general transfer, whether from central or local government sources, to continue to be subject to normal

government budget disciplines. There must be no RF which is guaranteed some share of total tax revenue to which is added the money generated from user charges.

Finally, however, one must be cautious in constraining the capacity of countries to raise fuel duties as a means of increasing general revenues. Inevitably, that would put a burden on government and the authorities of the RF to explain, at a minimum, why all petrol price increases are not created equal. It may also mean that, for some developing countries, where fuel charges are a particularly important source of tax revenue, RFs may simply not be appropriate.

To sum up, the desirability of dedicated RFs in the future needs to be assessed on a case-by-case basis. Provided the right conditions are met, RFs can be endorsed in practice as well as in principle. The question is just how often the right conditions can be met.

**REFERENCES**

Gwilliams, K.M., and Z.M. Shalizi, "Road Funds, User Charges and Taxes," World Bank *Discussion Paper,* April 1997.

Pennant-Rae, R., and I. Heggie, "Commercializing Africa's Roads," in *Finance and Development*, December 1995.

Toleman, R., "Road Transport: How Much Does Government Need To Do?," Paper presented to World Bank at Road Transport Forum, April 1997.

Heggie, I., World Bank Technical Paper No. 275 "Managing and Financing of Roads: An Agenda for Reform," December 1995.