

### Road Finance

The basic challenge in road financing, as in financing any transportation mode, is to have funding at a sufficient level to keep road assets in a stable condition and to find ways to finance necessary extensions of the road network.

Some recent trends and developments with impacts on road finance can be summarised as follows:

- Over the past two decades the view about the **economic nature of roads** has evolved. In the past roads have generally been considered as public goods, financed through public budget like any other social service. This view has changed, leading to a more commercial approach to roads and to the idea that recovering the costs of road development and maintenance should be based more on the user pay principle.
- Linked to this, **reforms of public services** in the 1990s and 2000s have led to a restructuring of the road sector in many countries.
- Furthermore, growing concerns about climate change and negative environmental impacts of roads have stimulated the debate about **recovering the costs of externalities** of road transport, like congestion, pollution, noise and accidents.

Basically, there are **four main ways of financing roads**. High volume roads lend itself often very well for toll financing. Low volume roads at the other extreme are sometimes financed through local Road Associations. In between these categories,



roads are often financed through the government's budget. Two approaches can be followed: the budget approach, meaning financing road maintenance as a public expenditure out of the public budget, or the road fund approach, based on a fee-for-service concept, meaning that road users pay for road costs and the revenues thus collected are to be dedicated to road expenditures.

Globalisation issues, high economic growth and the need to secure energy and raw material supplies together with more appropriate risk appetites, have led to a marked rise in **South-South transport infrastructure financing**. This trend is particularly evident in Africa where China, India and some Gulf States have all recently emerged as significant players in infrastructure finance and construction. Most of the Private Participation in Infrastructure total is in telecommunications. China concentrates on power and rail and the OECD donors on water /sanitation and roads.

The following topics are addressed in the related pages of this section:

**Output based aid/contracts** is a way of modelling the financing of projects. Rather than paying for inputs and activities,



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payments are based on reaching project outputs. It has been most widely used for water, sanitation, electricity supply and medical services.

Recurring shortages in public budget for road investments have led many governments into establishing a **Road Fund**. A road fund can be defined as a dedicated fund set up for (some aspects of) road management (Robertson, 2008). Its main characteristic is that budget is earmarked to be spent on the development and/or maintenance of the road network, and is only to be accessed by a dedicated administrative unit.

**User charges** can take a wide variety of forms: fuel taxes, license fees, vignettes, direct tolls and congestion charging schemes. They might end up in the general revenues or be used as revenue for Road Fund in place. When talking about direct tolls, they are used to repay capital investments and debt service of the private investors.

Many governments have looked into attracting **private finance** as option. Private finance inherently introduces a project finance approach to infrastructure investment. It brings new partners around the table, like commercial banks and investors. Certain conditions have to be fulfilled in order to attract private investments in infrastructure.

### Key Documents

- (Book:) Robinson, R., **Restructuring Road Institutions, Finance and Management, Volume 1: Concepts and Principles**, University of Birmingham & gTKP, United Kingdom, 2008.  
This book provides useful basic principles, concepts and mechanisms on a wide variety of topics related to the management of road networks. Chapters 3 and 4 are dedicated to Road Finance and give an overview of the transition from traditional public financing of roads to more innovative approaches, including the accompanying transitions for government institutions.
- Abelson, P., [Financing transport infrastructure: Public Finance issues](#), Macquarie University, Sydney, Australia.  
This paper addresses the topic of financing infrastructure from the public finance point of view and distinguishes between the raising of finance for infrastructure investment and the servicing/repayment of the capital invested. It also elaborates on the implications of different financing arrangements for the ownership, organisation and management of infrastructure.
- Amonya, F., [Financing the Road Network in Sub-Saharan Africa: Deconstructing History and Exploring the Future](#), Transportation Research Board Annual Meeting 2009 Paper #09-0715, 2009.  
This paper explores the institutional

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challenges Sub-Saharan African countries face to attract private finance for the management of transport infrastructure assets and provides a model for the requisite institutional changes.

- Foster, V., Butterfield, W. and Chen, C., [Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa](#), Trends and Policy Options Paper Series No. 5, World Bank/PPIAF, 2009. ([version Francais](#))

China is by far the largest player when it comes to emerging economies that play a role in financing infrastructure in Sub-Saharan Africa. Both bilateral trade and Chinese FDI in Africa grew about fourfold between 2001 and 2005, as well as official economic assistance. The sectors benefiting most are power and transport. The report provides an overview of these activities, in terms of number and analysis.

### Presentations

- Amoatey, Charles Dr, [Are Developing Countries Paying for Their Roads?: Matching Road Costs and Available Resources](#), 2007
- Amos, Paul, [Financing Freight Railways in Developing Countries](#), World Bank, 2007

### Recommended Links:

- [European Bank for Reconstruction and Development](#)
- [International Finance Corporation](#)
- [US Department of Transport, Federal Highways Administration](#)
- [World Road Association \( PIARC\)](#)

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### For further information

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