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Funding Transport Systems

A Comparison Among Developed Countries

By

D. NAKAGAWA and R. MATSUNAKA

Department of Civil Engineering Systems

Faculty of Engineering

Kyoto University



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India – Malaysia – China

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CHAPTER 1

INTRODUCTION

Transportation systems play a central role in supporting both economic activity and social life, but despite major capital investment in the past most countries are finding that their transport systems can barely keep up with demand. Unless transport is to become a constraint on further economic development, ways must be found to improve them. A key aspect of this problem is funding.

Methods of financing range from the orthodox, such as generating tax revenues and collecting fees from users, to the more esoteric, such as placing the burden on specific beneficiaries. From the viewpoint of the burden theory of financial resources, the question of who should pay is of deep concern and is related to the most basic questions of how to assess the role and purpose of transportation improvements. If it is believed that improvements will only result in increased user convenience, then users should bear the cost, however, transportation systems are part of the social infrastructure for all industries and activities, as well as having a social welfare dimension in ensuring freedom of movement. In addition there may be external effects such as capital gains accruing to local land owners. Finally, the question of financing is complicated by such issues as the external costs of environmental impact and the need to distribute the burden across generations.

The aim of this book is to discuss basic concepts and practice of financing of transportation systems. In the first half, after describing the theoretical basis of burden, the policies and financial systems of some developed countries are introduced and compared analytically. In the second half, a methodology for comparing the structure of financial resources is developed, and actual investment per group of contributors is calculated.

In the first half of the book, the focus is on each country's position on the following issues: 1) the responsibility of the public sector and the role of the private sector; 2) the balance of burden covered by general funds and by users; and 3) The balance of burden covered by present financial resources and by debt. The second half shows how such national policies are reflected in their financial resources. Here, after a detailed cross-country review of transportation finances, a methodology is developed for an international comparison of financial

resources for transportation system improvement. This methodology utilizes a concept of “actual contributors” as a way of cross-country standardization so avoiding superficial comparisons based on incompatible statistics.

Previous studies used partial and fragmentary investment data but this book includes comprehensive data covering all roads, railways, and airports. When making international comparisons, an attempt has been made to apply unified standards rather than comparing superficial statistical values, since methods of recording and calculating statistics vary from country to country. Much work remains to be done in this area if discussion on appropriate financing of, and optimum improvements to transportation is to progress.

Based on the purposes mentioned above, the contents of this book are as follows.

In Chapter 2 the theoretical basis of burden is described, the basic concepts and important financial systems required for improving transportation systems are reviewed, and some recent characteristic systems are introduced. In Chapter 3 the transportation policies and financial systems for the roads, railways and airports of five developed countries (Germany, France, United Kingdom, U.S.A. and Japan) are analysed in relation to financial resources, then in Chapter 4 a method for an international comparison of financial resources is introduced. This incorporates the concept of “actual contributors” and leads to a classification of the financial resources needed to improve the transportation systems in each country.

The amounts of investment and its distribution between roads, railways and airports are calculated for five developed countries in Chapter 5, then in Chapter 6 the actual shares are calculated for each group of contributors. These groups include “national” and “local tax-payers” who contribute to general funds; “users” who pay fees, including tolls, fares and users’ taxes; “future users” who contribute through the burden of debt repayment, and “other specific beneficiaries,” who pay special taxes or contributions. These results are used in Chapter 7 to compare actual financial resources among the developed countries by looking at the degree of dependence on debt, the ratio of special-purpose taxes imposed on the users, the ratio of national and local taxes to the total investment amount, and so on.

Based on this analysis Chapter 8 considers prospects for future improvement of transportation systems.