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EVALUATION OF REFERENCE CASES IN CBA

‘The case of the Netherlands’

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ABSTRACT

In most western countries CBA is the method used for ‘ex ante’ evaluations of transport infrastructure projects. For the construction of a good CBA a good quality reference case is important. However, the international literature on do’s and don’ts is limited. First, this paper fills this gap by proposing guidelines for the construction of good quality reference cases. Moreover, three reference cases are evaluated ‘ex post’ against the constructed guidelines. By comparing the three reference cases constructed in the past with the guidelines, we aimed to learn of the mistakes and the good practices of the past.

KEYWORDS

Reference case, evaluation, ‘ex post analysis’, infrastructure project, cost-benefit analysis

INTRODUCTION

In most western countries CBA is the method used for ‘ex ante’ evaluations of transport infrastructure projects (Hayashi & Morigsugi, 2000). The quality of the construction of a reference case is as crucial in a CBA for infrastructure projects as the definition of the project alternatives, because the rate of return of project alternatives is measured by comparing the state of affairs in the reference case with the state of affairs in the project alternatives. However, the international literature on do’s and don’ts for the construction of good quality reference cases in CBA is limited. This paper will fill this gap by proposing guidelines for the construction of good quality reference cases in CBA. The guidelines proposed are based on economic theory and interviews with Dutch CBA experts. Moreover, three reference cases that are made in the past are evaluated ‘ex post’. Three CBAs of the past were selected of transport projects that were not implemented finally. So, these three reference cases became reality – one could say. By comparing the three reference cases constructed in the past with reality we aimed to learn of the mistakes and the good practices of the past. Besides its scientific relevance, research on the construction of good quality reference cases could be

relevant for practice. For the Dutch practice, for instance, the research could be relevant for multiple reasons, as this paper shows. First, the high significance of the construction of a plausible reference case is not recognized by project organizations in the Netherlands. Second, there is a lack of knowledge concerning, for instance best practices for the construction of reference cases by project organizations and project promoters. Third, the Dutch guidelines for the construction of CBAs for infrastructure projects state that in the Netherlands a reference case must be constructed in line with the so-called do-minimum principle. This entails that other measures besides existing policies must be taken into account in the construction of the reference case. However, the guidelines are rather vague concerning the definition of these extra measures that need to be taken into account. Whether or not the findings of this research are relevant for CBA-practice in other countries, is not researched in this paper.

RESEARCH METHODOLOGY

The Guidelines for a good quality reference case are constructed with the help of general economic theory and interviews with several Dutch experts. Besides international literature on welfare economics, specific literature on the construction of reference cases is studied for the construction of the guidelines. The most important documents concerning the construction of good reference cases were studied for this paper. The CBA Guide for infrastructure projects (Eijgenraam et al., 2000), the supplements on the CBA Guide for infrastructure projects (Ministry of Transport, Public Works and Water Management, 2004) and the CPB memorandum; problem analyses and the deduced project alternative and reference cases in CBA's (Ossokina et al., 2009) elaborate on the basic elements concerning the construction of good reference cases. However, the basic guidelines that are described in the three documents were rather vague and occasionally inconsistent. Interviews with Dutch experts were necessary in order to study some inconsistencies in depth. In the interviews, respondents were asked to elaborate on strong and weak points / dangers by the construction of reference cases in general. Furthermore the respondents were asked about the strong and weak points by the construction of specific reference cases. Based on the documents and the complementary interviews a guideline for good reference cases was constructed. Moreover, three reference cases were selected (work in progress). The 'ex post' evaluation of the three reference cases will sustain on three different criteria. First the chosen methodologies / principles that were used by the construction of the reference case will be evaluated 'ex post', second the way the reference case is communicated will be evaluated and third the numerical predictions in the reference case will be confronted with outcomes in reality. The first reference case that will be evaluated is the Zuiderzeelijn (NEI, 2000), (ECORYS, 2006).

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