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Extract from Rigsrevisionen's report submitted to the Public Accounts Committee

The Danish Ministry of Transport and Housing's budgeting of road projects

1. Introduction and conclusion

1.1. Purpose and conclusion

- 1. This report concerns the Danish Ministry of Transport and Housing's (the Ministry of Transport) budgeting of road projects. In this context, budgeting refers to the Ministry of Transport's, including the Danish Road Directorate's, efforts to prepare accurate budgets and continuously follow up budgets.
- 2. The framework set for the Ministry of Transport's budgeting is the so-called New Capital Budgeting Model (the budgeting model) that was introduced by the ministry in 2006, because a number of government construction projects had experienced considerable cost overruns. Furthermore, an analysis prepared by the Danish Ministry of Finance found that the budgeting methods used at the time were not sufficiently capable of forecasting the final price of the projects. The principles of the budgeting model prescribe that the projects should be submitted to external quality assurance and that the budget be prepared in accordance with a number of specifications, including the addition of a 30% reserve to the base estimate of project cost. According to the principles of the budgeting model, the purpose of the base estimate is to arrive at the best possible estimate of the costs of the project based on the information available at the time, and without adding any reserve to cover general uncertainties. In a scenario unaffected by risks, the final price of a project is thus expected to be identical with the base estimate. During the construction period, the base estimate thus constitutes the financial goal that the Road Directorate aims to achieve. Moreover, ensuring financial transparency and traceability of projects is a key principle.
- 3. The budgeting model for large road projects was implemented by the Road Directorate in 2007, and since then 32 road projects have been budgeted or adjusted in accordance with the principles of the model.

The costs of road projects have been considerably reduced since the introduction of the budgeting model. A statement prepared by the Road Directorate shows that the projects have used, on average, only approx. 67% of the allocated funds, including the reserves allocated by the Folketing.

In their comments to the report from September 2015 on the use of the budgeting model in connection with the development of a new railway line between Copenhagen and Ringsted, the Danish Public Accounts Committee emphasised that the budgeting model was not intended to encourage systematic overestimation.

New capital budgeting model

With the adoption of Document no. 16 of 24 October 2006, new budgeting principles were introduced in the Ministry of Transport's area of responsibility.

Base estimate

This is a base estimate of the costs of a project prior to the inclusion of provisions.

4. The purpose of the study is therefore to assess, whether the Ministry of Transport, including the Road Directorate, has budgeted the road projects in a satisfactory man-

Rigsrevisionen initiated the study in September 2018.



Conclusion

It is Rigsrevisionen's assessment that it is not satisfactory that the Ministry of Transport, including the Road Directorate, has overestimated the final costs of 25 out of 32 road projects by a total of DKK 3.9 billion, corresponding to approx. 11.3% of the total funding granted. In addition, the 32 projects have unused reserves of approx. DKK 7.7 billion. These reserves have been allocated as part of the New Capital Budgeting model. This means that the costs of the projects were in total approx. DKK 11.6 billion lower than estimated, and made up approx. 33% of the total allocated funds. The Road Directorate has only to a limited extent worked out analyses that explain the lower cost level.

The consequence is that unused funds risk being tied up in road projects that do not require the resources instead of going into future projects.

The study found that the Road Directorate systematically collects data to support accurate budgeting and prepares its estimates based on prices that it considers representative for the construction work to be carried out. Furthermore, the Road Directorate has ensured that road projects are submitted to external quality assurance. However, the Road Directorate is only to a limited extent capable of documenting its considerations concerning lessons learnt from previous projects, nor is the directorate to any noticeable degree able to explain why, in some projects, deviations are made from the unit prices derived from experience gained in connection with past projects. The inadequate documentation has an adverse effect on two essential principles of the budgeting model, namely transparency and traceability. In its analyses, the Road Directorate focused on the post-calculation allowance, but not on the reason for the reduced spending of DKK 3.9 billion, which is mainly related to the fact that the price of the contracts entered between the directorate and the contractors has repeatedly ended up being lower than estimated.

The study also found that generally the Ministry of Transport follows up on the relationship between the actual forecast of road project cost and total government funding. However, the ministry has not set any criteria that determine when excess funds from projects, where spending has been considerably lower than estimated, should be returned. This means, that in most cases, the ministry has not returned excess funds to the Danish Infrastructure Fund, before the roads were opened for traffic and the project accounts were closed. This in spite of the fact that the costs of the projects are generally stable and not drawing on the reserves, after the contracts have been closed.

The Ministry of Transport has informed Rigsrevisionen that a total reserve of 15% instead of 30% will be allocated to all future road projects that are budgeted according to the budgeting model. Similarly, the Road Directorate has informed Rigsrevisionen that it considers it appropriate to document the background for the selection of specific prices and projects for inclusion in the experience base along with the causes and consequences of changes made to the price base, and the directorate intends to implement this approach going forward. The Road Directorate has also stated that it will ensure that the process and the overall criteria that govern the return of excess funds are set out in writing.