Investment evaluation with respect to commercial uncertainty

the production of natural gas
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Foreword

Several years ago N.V. Nederlandse Gasunie contacted the University of Groningen, Department of Econometrics, with a question about their commercial-technical planning: how to properly deal with uncertainty? In 1989 the research project Plato-OOG (an acronym for 'Planning Tools-Research Uncertainties Gastransport') was started. The project team consisted of Ton Fournier from Gasunie, and Anne Boorsma and I from the Department. After two years we presented a final report. Some of the ideas in the report had already been implemented during the project.

As a spin-off of Plato-OOG, I continued the research on the subject at the Department, which resulted in this thesis. The scope of Plato-OOG necessarily had been very broad. Instead, I took a particular idea (the commercial scope) from the Plato-OOG report, elaborated it formally and applied it to a small partial planning problem. In the end, it appeared that a number of other ideas in the Plato-OOG report nicely fitted into the framework developed.

To present a thesis as a piece of scientific writing, the author should adopt some conventions. One of these says that the foreword and acknowledgments are the only place where the writer reveals that in fact he is the only one behind the opinions presented. However many people helped me to arrive at these conclusions, I would like to stress that the few times you might come across the words we or our in the text, it is I myself who is to be blamed.

Acknowledgments

First of all, the financial support of N.V. Nederlandse Gasunie is gratefully acknowledged. Without it, both Plato-OOG and this thesis would not have existed. I am indebted to Anne Boorsma and Ton Fournier for the pleasant and fruitful cooperation during the Plato-OOG period, and for their interest in my research afterwards. The planners of Gasunie greatly contributed to the success of Plato-OOG by their helpful comments and professional cooperation.

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Willem Klein Haneveld to a great extent shaped this work, not in the least by our frequent meetings, his critical spirit and his exemplary perseverance. Only a few have a supervisor of such calibre. During the last two years, I found a helpful assistant in Tako Molanus, who proved both patient and creative in the many calculations that were needed for the experiments in this thesis.

Oss, November 28, 1994
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