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PETER G. MOORE
London Business School



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Preface

Risk is all pervasive. An individual faces physical risks from driving a car, career risks from the possible bankruptcy of one's employer, financial risks from investing his or her savings in equities. A company faces the risk of collapse of a traditional market, or of research failure for a new product. A government may face an unexpected strike or a foreign government's rebuff to a diplomatic overture. While in some areas, such as life assurance, risk is well understood and systematically handled in an accepted manner, this is not common in other areas of economic and social activity.

The proceedings of a 1980 Royal Society symposium on risk were published under the title *The Assessment and Perception of Risk*. Lord Ashby's introduction gave a commercial example concerning the damages involved from a collision between two ships. The fifteen papers in the volume dealt, however, almost exclusively with areas of personal physical risk. I hope this book will help to answer the kind of question posed by Lord Ashby and redress the narrow perspective given to the subject, no doubt accidentally, by the Royal Society symposium.

The three principal messages conveyed are: first, risk arises in some form or other in virtually all fields of endeavour; second, it is important neither to ignore risk nor to be frightened by it; third, systematic methods to assess and handle risks can be developed. After an introduction and four general chapters dealing with risk assessment, the book examines the progress that has been made in handling risk in seven distinct fields. While these fields are not exhaustive, they cover the more common risk areas. The appendixes provide some basic background material on risk handling of general relevance to the application orientated chapters. Only a rudimentary knowledge of mathematics and statistics is assumed for all except a few sections of the book.

x *Preface*

Much confusion is caused over the terms *objective* and *subjective* as applied to risk assessment. The former is commonly linked to situations where a history of precisely similar situations exists, while the latter assumes that no such history exists on which to base assessments. Pundits argue that probability concepts can be applied in the first, but not the second, situation. This is to paint a black or white canvas that is unrecognizable in real life. Most situations mix objective and subjective inputs. Methods have necessarily to be developed to use the information available fruitfully, and this book aims to make a contribution to this end.

References are grouped together, by chapter, at the end of the book. This layout allows the references to form a select bibliography of recent work done in the area of risk. A set of thirty exercises is included at the end of the book, covering many of the concepts illustrated in the book. They should help readers to reinforce the concepts, whether or not they have the benefit of tutorial guidance.

The book draws material from many reports, research papers, magazines, journals and books – in some instances unpublished. The source of any material quoted is acknowledged wherever practicable and I apologize for any accidental omissions. Particular acknowledgement is made to Her Majesty's Stationery Office for Table 2.6, Coral Industries for the letter reproduced on page 146, Risk Measurement Service of the London Business School for Figures 8.1 and 8.3 and other tabular material, and to *The Guardian* with reference to Exercise 13 on page 225.

It is a pleasure to acknowledge the help received from many quarters, not least student groups who have wrestled with drafts or some chapters. My wife, Sonja Moore, has give me invaluable assistance with proof-reading of the text, and compilation of the index. Nevertheless, ultimate responsibility rests with the author and comments from readers will be welcome.

London
March, 1983

P. G. MOORE