FOREWORD

During the twentieth century one of the most important changes in the structure and management of industry has been the rise of corporate R&D in large companies. Although some economists, such as Schumpeter and Galbraith, have recognized the significance of this change, it has received very inadequate attention in the general economics literature. Very frequently, the models of company behaviour, implicitly or explicitly adopted in such literature, ignore the change altogether.

Although such attitudes cannot be justified, they are understandable, because of the lack of good information about management behaviour in relation to R&D and innovation more generally. Moreover, the issues are complex, since company behaviour changes over time and can only be understood in a long-term historical context. It is much simpler to make drastic simplifying assumptions, which may sometimes give satisfactory results in the interpretation of short-term market situations. In the longer term, however, this approach completely fails to explain the dynamics of competition, both at the company level and at the international level. An understanding of Schumpeterian technological competition is absolutely essential for any realistic interpretation of these longer term changes.

It requires immense patience and subtlety to explore these longer-term aspects of company behaviour. It cannot be done simply by 'desk research', nor yet by the endless refinement of mathematical formulae as a substitute for delving into what is really going on. To make progress in this area requires a combination of the skills of the historian, the economist and the technologist, together of course with the ability to use mathematics in such a way as to summarize and illuminate the real processes of change. It also requires the ability to talk to people at all levels of responsibility in companies and to gain their confidence and cooperation in exploring and interpreting the evidence. As Schumpeter pointed out, very often the evidence of company reports and technical journals may be more important than official national statistics, which may conceal more than they reveal, because of the problems of aggregation.

All this means that to acquire evidence in this field and to make sense of its interpretation is a challenging and time-consuming task, and I am not in the least surprised by the final comment in Granstrand's own preface to this book. Only an exceptionally determined researcher with a great deal of originality and flair could succeed. For this reason there are very few good studies of corporate management behaviour in relation to R&D strategy and technical innovation. There are scarcely any which go beyond the level of case studies of individual companies or innovations, yet have an adequate and realistic base for generalization at the national and international level. Consequently, I am delighted to commend this considerable achievement unreservedly to the reader.

Christopher Freeman
June, 1982