Periodic Reporting 55

V. The Emergence of Overhead Costing 58
Accounting for Prime Costs 58
Recognizing and Accounting for Overhead Costs 60
The Industrial Setting of the Nineteenth Century 64
The Cost-Book Mining Companies 67
Jobbing Contractors 68
Industrial Secrecy 69
Competition 71
Professional Support for Costing 72
Conclusion 78

VI. Engineers 80
A Diversity of Interests 80
The Problem of Estimating 81
Estimates and General Expenses 83
The Components of Cost 86
Reconciling the Records with the Accounts 87
Facts in the Cost Accounts 88
Alexander Hamilton Church 90
Competing Ideas 99
Conclusion 103

VII. The Efficiency Movement 105
Promoting Economic Efficiency 105
Incentive Wage Schemes 106
Standards 108
Costing for Scientific Management 110
Unwarranted Association 114

VIII. The Economists 116
A Lack of Influence 116
Costs Attach and the Labor Theory of Value 119
A Period of Splendid Isolation 121
The Marginalist School 124
Railways and the Rate Problem 129
Conclusion 134
## CONTENTS

### IX. The Accounting Viewpoint 137
- Introduction 137
- Professional Jealousies 138
- Aiding Production Decisions 142
- Tying the Books Together 144
- A Factual Record 147
- Cost Accounting as an Aid to the Auditor 152
- Conclusion 156

### X. Conclusions 160
- A State of Crisis 160
- The Relevance of Unit Cost 163
- Summary of Conclusions 165

### Appendices 173
1. A Hypothetical Example of the Effects of Various Allocation Bases 175
2. The X. Co. Ltd.: an Example of an Alternative Accounting System 182
3. An Example of the Estimate Sheets of Boulton and Watt, September 30, 1801 to September 30, 1802 186
4. Bibliography of Articles and Books Published after 1914, and Cited in This Study 190

### Index 201
FOREWORD TO SERIES

During the 1960s and 1970s a remarkable series of books were produced by academic staff in the field of accounting at the University of Sydney. All were out of print. The Accounting Foundation believed that they should be made available to a new generation of scholars and researchers.

First and foremost amongst these was Accounting, Evaluation and Economic Behavior (AEEB), written by the University’s foundation professor of accounting, R.J. Chambers and first published in 1966. Several distinguished scholars have acknowledged that AEEB was a pivotal contribution to the development of the ‘decision usefulness’ theme in accounting research. It presented a systematic argument for the clarification of the meaning of key accounting concepts (such as ‘asset’, ‘liability’, ‘equity’, ‘revenue’ and ‘expense’). It argued that there was a need to identify the property of assets and liabilities to be measured in accounting—with Chambers proposing the use of current market prices, or contemporary cash equivalents. It also argued for the use of adjustments to the application of money as a measurement scale when there were changes in the purchasing power of money. Decades later, many (though not all) of these ideas were adopted by the international accounting profession, when profession-sponsored bodies published ‘statements of accounting concepts’ or statements of conceptual ‘frameworks’.

Chambers was a prolific contributor to research journals and many of those journal contributions are now available in electronic form. Amongst his later contributions in book form was Securities and Obscurities. When first published Chambers freely acknowledged that it was a polemic. Readers are left in no doubt that the world would be a better place if there was widespread adoption of ‘continuously contemporary accounting’. Suffice it to observe that during the 1960s, questioning of the ‘historical cost’ model of accounting was often regarded as a form of heresy. By 2006, a surprising proportion of accounting standards now prescribe the use of market values in asset or liability valuation.
But arguably Chambers’ greatest legacy at the University of Sydney was his encouragement of scholarly endeavour by colleagues and students.

The other books re-published at this time were all initially based on research undertaken by academic staff during the 1970s and early 1980s. The topics reflect the diversity of interests of the ‘Sydney school’ at that time: Clarke (1980) on the history of price level accounting, Walker (1978) on the history of ideas about the preparation of consolidated statements, Wells (1978) on accounting for common costs, and Wolnizer (1987) on auditing as independent authentication.

It was a period when academic research was largely analytical rather than empirically-based; and when the interests of academics at Sydney were largely directed at questioning the status quo—whether that be expressed in the way accounting or auditing was practised, or in the conventional wisdom as expressed in text-books of the time.

The interests of accounting academics have changed over time. But this collection of works displays the heritage of the University of Sydney in scholarly research and advocacy of the ‘decision usefulness’ theme in accounting.

(Neil Wykes)
President, Accounting Foundation
University of Sydney
NOTE FROM THE EDITOR

The Center for International Education and Research in Accounting has as one of its major purposes the publication of scholarly contributions in the field of international accounting. With the publication of this comprehensive study by Professor Murray C. Wells, I believe the Center has published a seminal work.

Professor Wells’ scholarship is thorough and comprehensive. He has turned his efforts to one of the most difficult allocation problems in accounting. His particular area of concern is the important one of allocating “common overhead cost of products.” Professor Wells has completed an exhaustive study of the literature in this area. We believe the reader will be given a useful explanation of the historical background and present discussion of accounting practice relating to overhead allocations.

In addition to the monograph, Professor Wells has also compiled a comprehensive bibliography of this topic. We believe it is the most comprehensive yet compiled and should serve accounting scholars well in the future. The bibliography is published in a companion volume and is an integral part of the research.

The Center is pleased to have the opportunity to publish this particular work. We are grateful to Mrs. JaNoel Lowe for supervision of the publication process and her valuable technical editing.

V. K. Zimmerman
Authors of books about cost accounting frequently express their dissatisfaction with the techniques for, and results of, allocating common (overhead) costs to products. Despite that dissatisfaction, a considerable part of the contents of textbooks and expositions of cost accounting is normally devoted to descriptions of allocation techniques. The resulting conflict and confusion provided the impetus for this study.

The origins and development of cost allocation techniques are examined. It is argued that the widespread adoption of techniques for allocating common costs occurred because of a failure to recognize the difference in nature between cost estimates and cost records. As a result, the ex post records of allocated costs serve no useful purpose. An alternative system based on “activity records” is proposed.

The evidence upon which the historical part of this study rests is contained in the second part of this monograph—A Bibliography of Cost Accounting: Its Origins and Development to 1914. It is a comprehensive bibliography of the early literature of costing and cost accounting. In it, books and articles on or related to costing are listed and numbered. Those which I have been able to examine are accompanied by (sometimes extensive) extracts or annotations. The Bibliography is indexed by authors and subjects. All references to it in the text of this study are shown thus: Abbott (1914 *2252). That is, by name, date, and number of the reference. However, not all references in support of a particular view, or the views of one author, have necessarily been listed in the text. That would be extremely tiresome for any reader. References in addition to those cited are indicated by the author and subject indexes of the Bibliography.

References of cited works published after 1914 are contained in Appendix 4. They are also numbered. References to them are shown by name and number of entry thus: Ashton [11].

Many people and many libraries in Australia, the United Kingdom, and the United States have given assistance during the course of this study. The libraries and their librarians who helped
so willingly to provide historical material are acknowledged with thanks in the *Bibliography*. Colleagues and others who deserve special mention here are Professors R. H. Parker, University of Dundee, and B. S. Yamey, London School of Economics, who read and commented on an earlier version of the study; Professor A. L. Thomas, McMaster University, who gave particular advice on the early chapters; Dean V. K. Zimmerman and his associates at the University of Illinois at Urbana-Champaign who made constructive suggestions; and my colleagues at the University of Sydney who at all times constrained me to keep my feet on the ground, and who over a period of several years have acted as sounding boards and devastating critics. Finally, but most importantly, I want to acknowledge the assistance of Professor R. J. Chambers of the University of Sydney who has been an inspiration and guiding influence. My debt to him is obvious in the pages which follow.

To these, and all others too numerous to mention with whom I have conversed, debated, and argued, my sincere thanks.

M. C. Wells
June 1978