# Mallinson Understanding current cost accounting

A Guide for those preparing and using financial statements

**Butterworths** 

## Understanding Current Cost Accounting

A Guide for those preparing and using financial statements

by

DEREK MALLINSON

Price Waterhouse & Co

Butterworths London 1980 England Butterworth & Co (Publishers) Ltd

London 88 Kingsway, WC2B 6AB

Australia Butterworths Pty Ltd

Sydney 586 Pacific Highway, Chatswood, NSW 2067

Also at Melbourne, Brisbane, Adelaide and Perth

Canada Butterworth & Co (Canada) Ltd

Toronto 2265 Midland Avenue, Scarborough, M1P 4S1

New Zealand Butterworths of New Zealand Ltd

Wellington 77–85 Customhouse Quay

South Africa Butterworth & Co (South Africa) (Pty) Ltd

Durban 152-154 Gale Street

USA Butterworth (Publishers) Inc

Boston 10 Tower Office Park, Woburn, Mass 01801

#### © Butterworth & Co (Publishers) Ltd 1980

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying and recording, without the written permission of the copyright holder, application for which should be addressed to the publisher. Such written permission must also be obtained before any part of this publication is stored in a retrieval system of any nature.

This book is sold subject to the Standard Conditions of Sale of Net Books and may not be re-sold in the UK below the net price fixed by Butterworths for the book in our current catalogue.

ISBN 0 406 34180 X

Reprinted 1980

Reprinted 1981

Set, printed and bound in Great Britain by Billing and Sons Limited, Guildford, London, Oxford, Worcester

### **Preface**

Sensationalism is ultimately self-defeating, and it is probably not an exaggerated claim that the development of inflation accounting, marked in the UK by the recently issued Accounting Standard (SSAP 16), is the biggest event in accounting in living memory. It would be a mistake to regard the accounting requirements of SSAP 16 as another instance of tinkering with the mechanism—irksome or helpful—according to one's point of view. Rather, SSAP 16 marks a new beginning; from now on, the results and well-being of businesses will be measured by a different yardstick, as if the coinage, or the currency itself, had been changed. There will be little means of escape; even for businesses presently exempted by the size criterion the skilled observer will be able to effect his own translation of conventional figures.

The accounting standard itself emphasises the evolutionary nature of the subject. After one or two false starts a practical beginning was achieved with the introduction of the Hyde Guidelines, and the experience of companies experimenting along these lines has doubtless convinced the Accounting Standards Committee that the practicality of the Guidelines may be put to wider effect. Indeed, the accounting standard largely encompasses the Hyde Guidelines, refined to deal with the monetary problem and extended to provide a link between CCA profit and loss account information and related net assets statements.

There are many who would prefer to await the development of a more grandiose edifice, a more complete job. To them, the reply must be that the complete job that they require is but a vision probably far beyond our immediate grasp, because the object of our search reaches down to the very fundamentals of accounting.

At the beginning of the 1970s it was possible to debate the question "What is profit?" as the theme of a Summer Course organised by the English Institute of Chartered Accountants with scarcely a murmur about inflation. Asked that question today, the accountant would have to consider the nature of the capital structure, or corpus, of the business that is to be maintained before striking profit. Do we

#### **PREFACE**

arrive at profit after keeping intact the funds invested in a business, knowing that those funds will need to be augmented as prices rise, or do we measure profit after maintaining the assets in which the funds are invested—what SSAP 16 terms the "net operating assets"? In the one case, the measurements are calibrated in yesterday's costs; in the other, in today's.

Indeed, the considerations that now arise from that basic question are even more far reaching, and penetrate to the purpose of accounting itself. Has a business a different perception of profit from that of its owners? What constitutes a business? To whom, and in what form, is a business accountable in a financial sense? These are the fundamental issues raised by the concept of accounting for the effects of changing prices on a business by measuring in current cost terms.

Whether we like it or not, there is no going back to that earlier era, short of a restoration of the integrity of the currency. The more fundamental issues in accounting will not be suppressed by attempts to improve the existing model, useful though the improvements might be in themselves. Questions will be asked, and measurements will be made in current cost terms. The new medium has been absorbed into the language, as any financial newspaper or journal will show. It was a forgivable mistake to try initially to oust the existing historical cost yardstick, but the availability of a different yardstick is now widely recognised. CCA is here to stay, even if at this stage it lacks the streamlining of the age.

The financial reporting media have done much in the last few years to lend substance to the assertions often made by the UK accounting authorities during the past thirty years that conventional historical cost accounts were an insecure foundation or were even misleading in an inflationary environment. Nevertheless, there remains widespread misunderstanding of the new measurements, and much distrust of the methods, particularly by the accounting profession itself. Conventional accounts are used as it were to prop up the new figures. Despite the plethora of explanations, or perhaps because of them, there remains an air of mystery surrounding any form of inflation accounting, almost like that appertaining to inflation itself. Have we not learned to live with the phenomenon, it is claimed, except perhaps for the businesses that have vanished into bankruptcy or have become state-aided?

xvi

This book is an endeavour to explain the aims of CCA and the effects of its measurements, not as an appendage to conventional accounts but as a measuring and reporting medium in its own right. Mastery of a new language requires an ability to think in that language, and it is probable that much of the confusion that is attributed today to the intrusion of CCA derives from attempts to think in historical costs and to articulate in current costs. The author believes that so fundamental a change in accounting philosophy cannot be satisfactorily accomplished by a brief statement of a mandatory accounting standard and by devising a do-it-yourself type check-list.

SSAP 16 and its related Guidance Notes feature prominently in the book and are reproduced as Appendices I and II by kind permission of The Institute of Chartered Accountants in England and Wales and The Accounting Standards Committee.

The first part of the book, embracing Chapters 1 to 6, begins, after an introductory chapter, with an outline of the deficiencies of conventional measurements in relation to the accounts for the last decade of UK industrial and commercial companies as a whole. It then goes on to examine the integrity of the CCA yardstick, to interpret accounts prepared by that yardstick, to examine the fidelity of the underlying notion of capital maintenance and related profit and to explain the effects of changing prices on the monetary working capital of a business and to test the strength of the accounting standard on this issue.

The second part (Chapters 7-11) looks in detail at the specific adjustments that are needed under SSAP 16 in order to apply the new yardstick. The approach has been to examine different routes by which CCA might be implemented in various business circumstances, to explain the nature and effects of the adjustments, to propose solutions to particular practical problems, and generally to help the reader to work out his or her own approach to implementation. It is emphasised that the book is intended to be read in conjunction with SSAP 16 and the related Guidance Notes.

Emphasis has been given in this part of the book to techniques for estimating the effects of inflation not only as an aid to management in policy formulation but also as a determinant of the methods to be followed by the accountant in the application of CCA. For instance, Chapter 8 contains a table based on statistics provided by the Central

#### PREFACE

Statistical Office (Price index numbers for Current Cost Accounting, HMSO) comparing the rates of price changes of fixed assets used by specified industries during the last ten and five years respectively, while Chapters 9 and 10 contain illustrations showing how the effects of inflation on stocks and net monetary working capital might be estimated.

It is bordering on the presumptuous for an author to advise on the reading of his book. While an interdependability was intended throughout, readers who want a thumb-nail sketch of the inflation accounting problem may find their needs satisfied by Chapter 1. This chapter was intended as an overview, or microcosm, of the book as a whole. Readers concerned with the interpretation of accounts prepared under CCA measurements, or in thinking in the new language, may concentrate primarily on the first part, while readers faced with the task of implementation may find the second part to be more closely directed to their needs.

It is true that no man is an island, and countless people have contributed to the writing of this book. Memories remain vivid of the spark induced by Drs W van Bruinessen in his address, "Bases of Accounting other than historical cost" given at the Tenth International Congress of Accountants in 1972, and of a visit made in April 1975 to the fount of current cost accounting, Philips of Eindhoven. A particular debt of gratitude is owed to my colleagues in Price Waterhouse & Co. Credit that the book has seen the light of day must be given to Graham Stacy, Director of Technical Services, whose enthusiasm for the project and for the subject itself often revived a flagging spirit and urged completion of manuscripts that might otherwise have found oblivion. Ian Smeaton has stagemanaged the proof-reading with aplomb and indefatigability, Nicole Blakev has for years conjured up articles from the four corners of the earth seemingly by next day's post, and secretaries have toiled uncomplainingly with unreadable manuscripts. My benefactors also include the many persons, companies and institutions who have kindly consented to my use of material quoted or referred to in the text. Last but not least thanks must be given to my wife and daughter who have borne this stranger in their midst with a stoicism that became even more evident as it departed.

> DEREK MALLINSON April 1980

### Contents

		PAGE
	List of Illustrations	XI
	Preface	xv
Pa	rt One: Understanding Current Cost Acco	unting
CHA	APTER	
1	Setting the Scene	3
	A state of confusion	3
	Attempts to enlighten	5
	Current purchasing power (CPP) accounting	6
	The Sandilands Report	7
	The nature of CCA	8
	Capital maintenance and profit concepts	8
	Value to the business	10
	Business substance	12
	Comparison of CCA and conventional accounts	12
	Cash resources	14
	The monetary items argument	15
	Monetary losses	16
	Monetary gains	17
	SSAP 16	18
	Application of SSAP 16	20
	The unfolding pattern	21
2	The Need for Change	23
	The illusory prosperity	23
	The inflationary burden	25
	Pre-empted profits	26
	Business maintenance or profit	30
	Profits and cash flows	31
	Reinvested profits	31
	Real profitability	34
	Inflation and industry	36

		PAGE
	Alternative ways of realisation	38
	False profits	39
	The dangers of estimation	41
	Conclusion	41
3	CCA and Capital Maintenance	43
	The profit marker	43
	Capital maintenance concepts	44
	The protection under CPP	45
	Business substance under CCA	47
	Value to the business	49
	Replacement cost distinguished	50
	Individual determination	50
	Profits and values	51
	Adequacy of framework	53
	The strengthened framework	53
	Sandilands defects	55
	Inter-acting assets	56
	Sporadic investment	58
	The selective approach	60
	Monetary working capital	61
	Trade debtors and creditors	62
	The supermarket example	63
	Net working capital	65
	Bank finance and cash	66
	Capital maintenance—summary	67
4	Monetary Items and Gearing	69
	The entity profit	69
	Attributable profits	70
	Effects of gearing	71
	CCA gearing adjustment	71
	The bargaining counter	74
	Real gearing gains	78
	The Hyde gearing formula	79
	Pragmatism of Hyde	82
	Gearing adjustments under SSAP 16	83
	Three pools of funds	84

		PAGE
	Comparison of SSAP 16 and Hyde adjustments	85
	Support for separate gearing adjustments	87
	The Godley-Cripps concept	89
	The real issue	92
5	Distributable Profit	98
	Profit perspectives	98
	Lack of statutory definition	99
	Present legal framework	100
	Companies Act 1980	102
	EEC Directives	103
	Limited maintenance objectives	105
	Distributability of holding gains	105
	Conclusion	106
6	Current Purchasing Power Accounting	108
	Use in certain countries	108
	Money and purchasing power	109
	Costs and values	111
	Application to physical assets	112
	Monetary items	113
	Inflation proofing	116
	Comparative measurements	118
	Conclusion	125
Pa	rt Two: Implementing Current Cost Accor	unting
7	Adapting to CCA	129
	Attitudinal adaptation	129
	CCA judgments	131
	Practicality of "Value to business"	134
	Estimating the impact of inflation	135
8	Fixed Assets	138
	GENERAL PRINCIPLES	138
	Objectives of fixed asset accounting	138
	Estimation of working lives	141
	Fully depreciated assets	144
	Identification of assets	145
	Alternative estimation	147

	PAGI
LAND AND BUILDINGS	149
Valuations	149
Basis of valuation	150
Existing use	150
Depreciated replacement cost	152
Leasehold properties	153
Frequency of valuations	153
Purposes of valuations	155
Depreciation requirements	156
New or second-hand replacement?	157
Use of indices	158
Property companies and SSAP 16	160
PLANT AND MACHINERY	161
Cost updating	161
Plant characteristics	161
Direct ascertainment	162
Indexation	164
Authorised indices	165
The choice of index	166
Industry indices and asset indices	169
Technological changes	173
Mathematical certainty or market reality?	173
Service potential	174
Varied benefits	175
Operating costs	176
Cost-benefit calculation	178
Summary	183
Depreciation and business maintenance	184
Calculation of depreciation	184
Backlog depreciation	187
Changes in asset lives	190
Disposals of fixed assets	195
Change in basis of valuation	195
Stocks and Cost of Sales	198
Availability of current cost data	198
Present accounting conventions	199
Effect of CCA	200

viii

		PAGE
	Cost recovery on sale	202
	Rejection of future costs	203
	Time and cost gaps	204
	Effect on balance sheet	207
	Base stock accounting	208
	Averaging method	210
	Gradual changes in stocks	212
	Fluctuating stocks	215
	Other methods of cost updating	217
	Current purchasing power mechanism	217
	Last-in, first-out (LIFO)	219
	Summary of effects of inflation	223
	The impact of inflation	223
	Stable physical stock levels	224
	Changing stock levels	224
	Widely fluctuating stock levels	225
	Stock classification	225
	Official price indices	228
	Use of official indices	229
	Weighting factors	232
	Internal price indices	234
	Standard costing systems	236
	Balance sheet value	240
	Practical problems	242
	Supply contracts	242
	Purchased seasonal agricultural produce	245
	Multiple processing	246
	Maturing stocks	247
	Averaging in a seasonal trade	248
	Long term contracts	252
	Contract financing	254
	Measurement of final outcome	256
10	Monetary Working Capital and Gearing Adjustments	260
	Basis of adjustments	260
	Monetary working capital adjustment	261
	Estimation of inflationary effects	263
	Use of averaging method	266

		PAGE
	Definition of monetary working capital	268
	Stocks not subject to COSA	269
	Fluctuating working capital	270
	Relationship to gearing adjustment	272
	Yardstick for measurement	775
	Financial businesses	277
	The gearing adjustment	278
	Calculation of gearing adjustment	281
	Borrowings and cash resources	284
	Surplus monetary assets	286
11	Subsidiaries and Associated Companies	288
	Group accounting arrangements	288
	Goodwill on acquisition of subsidiaries	290
	Inter-company indebtedness	292
	Minority shareholdings	295
	Intra-group profits	296
	Associated companies	298
	Translation of foreign currencies	301
	Appendices	
APP	ENDIX	
I		
	standard accounting practice (SSAP) 16	307
II	Guidance Notes on SSAP 16: Current Cost Accounting	327
Ш	STORES TO STORE STORES	
	Aggregate trading results, 1970–1979	395
IV	UK Industrial and Commercial Companies—	NAME OF STREET
	Sources and Uses of Funds, 1970-1979	397
V	UK Industrial and Commercial Companies—	
	Rates of return before interest payable and tax,	***
	1960–1978	398
VI	Annual rates of price changes in certain industries (%):	399
	(A) Stocks held as materials and fuel	399
	(B) Stocks held for sale	400
	(C) All stocks	401
VII	Value of the physical increase of stocks held by	
	manufacturing and other industries at 1975 prices	400
	seasonally adjusted, 1967–1978	402
VIII	Worked Example	404

## List of Illustrations

		PAGE
1	Application of "value to the business" rules	11
2	Comparison of profit concepts under HC and CCA	13
3	"Hyde" gearing adjustment	19
4	UK industrial and commercial companies: HC profits	
	pre-empted by inflation, 1970-1979	27
5	UK industrial and commercial companies: stock	
	appreciation and additional depreciation requirements,	
	1970–1979	28
6	Incidence of increases in stock prices on profits	29
7	UK industrial and commercial companies: summary of	
	sources and applications of funds, 1970-1979	32
8	Effect on profits of continuing inflation	33
9	UK industrial and commercial companies: average rates	
	of return, 1960-1978	35
10	UK large listed companies: rates of return by industry	
	classification, 1960–1977	37
11	Capital maintenance requirements under HC and CPP	46
12	Capital maintenance requirements under CCA in seasonal	
	trade	57
13	Capital maintenance requirements in conditions of	
	sporadic capital investment	59
14	Effects of trade credit on capital maintenance requirements	63
15	Tesco Stores (Holdings) Ltd: Inflation Accounting	
	Statement, 1978/79	64
16	Segregation of effects of price changes and volume	
	changes on net working capital	65
17	Effect of gearing adjustment on current and future	
	earnings	73
18	Effect of gearing adjustment on debt/equity ratios in	
	terms of assets and profits	76
19	"Hyde" gearing adjustments in diagrammatic form	81
20	Calculation of gearing adjustments under "Hyde"	81

#### LIST OF ILLUSTRATIONS

		PAGE
21	Monetary working capital and gearing adjustments	
	under SSAP 16 in diagrammatic form	83
22	Calculation of monetary working capital and gearing adjustments under SSAP 16	85
23	Comparison of monetary adjustments under SSAP 16	
	and "Hyde"	86
24	Comparison of CCA operating profit under SSAP 16 and "Hyde"	87
25	Effect of monetary adjustments in conditions of declining profitability	94
26	UK industrial and commercial companies: effect of	
	income gearing, 1970-1979	96
27	Profit measurements under HC, CPP, and CCA	
	conventions	110
28	Comparative effects of applying specific price index	
	under CCA and general price index under CPP	112
29	Comparison of monetary working capital adjustment	
	under SSAP 16 and monetary loss under CPP	115
30	Comparative profit and loss accounts, CCA, CPP	
	and HC	122
31	Age analysis of historical cost of plant and related	
Count Visc	depreciation, and mechanics of updating	148
32	Selection of indices: components and weighting factors	167
33	Cost updating by industry-specific index	168
34	, , , ,	170/171
35	Simple comparison of current replacement costs of	150
• -	existing machine and technologically advanced machin	
36	Effect of surplus capacity on current replacement costs	177
37	More detailed comparison of costs of existing machine	102
20	and technologically advanced machine	182
38	Effect of existing investment on replacement decisions	182
39	Effect of accumulating inflation on depreciation charges	
40	Backlog, or arrears of, depreciation	188
41	Avoidance of backlog by recurring investment	189
42	Making good backlog by indexing corresponding monetary assets	189
43	Changes in asset lives: inappropriateness of prospective	in 52000000
	adjustment under SSAP12 to CCA	190

#### LIST OF ILLUSTRATIONS

		PAGE
44	Changes in asset lives under CCA: retrospective	
	adjustments	193
45	Change in basis of valuation: economic values	196
46	Effect of recovering current cost of sales	200
47	Recovery of current costs as a feature of business	
•	maintenance	202
48	Advancement of cost of sales to exclude stockholding	
	period	205
49	Estimating the effects of inflation on stock turnover	206
50	Stock adjustments in the balance sheet	208
51	Segregation of cost changes and volume changes by	
	averaging method	212
52	Mechanics of averaging method in conditions of changing	ng
_	volumes of stocks	213
53	Cost of sales adjustments in conditions of fluctuating	
	volumes and prices	215
54	Fluctuating stocks: effect of compensating factors	216
55/6		
1 -	and CPP	218/219
57	Cost of sales on LIFO basis	220
58	LIFO basis: effect of liquidating stocks	222
59	Frequency of averaging calculations: decision chart	226
60	Simple application of official indices	229
61	Application of official indices to main groupings of	
	stocks and work in progress	230
62	Use of company-compiled indices	236
63	Standard costing: Operating cost statement	236
64	Adjustment of product group costs for unanticipated	
	price changes	239
65	Mechanics of balance sheet adjustments for stocks	240
66	Current costs under long-term supply contracts	243
67	Current costs in multiple processing industries	246
68	Current costs of stocks which are held for long periods	
	to mature	248
69/7		248/251
71/7	2 Long-term contracts: effect of progress payments on	(
		253/255
73	Long-term contracts: measurement of final outcome	256

#### LIST OF ILLUSTRATIONS

		PAGE
74	Effect of trade credit taken on finances and CCA	
	operating results	262
75	Effect of trade credit given	263
76	Estimation of net monetary working capital adjustment	nts 265
77	Use of averaging method in calculating cost of sales a	nd
	net monetary working capital adjustments	267
78/7	79 Adjustments for fluctuations in working capital	271/272
80/8	31 Net monetary working capital adjustment in a	
	seasonal trade	274/275
82	Financial businesses: monetary working capital	
	adjustment—The Barclays Group, 1979	279
83	Calculation of gearing adjustment	283
84	Gearing adjustment: effect of "surplus" cash	285
85	Calculation of CCA adjustments applicable to a	
	subsidiary company	295
86	Group accounts: elimination of unrealised profit	298
87	Calculation of CCA adjustments applicable to an	
	interest in an associated company	301
88	Foreign exchange translation: treatment of exchange	
	differences under CCA	303
89	Foreign subsidiaries: effect of foreign borrowing and	
	gearing adjustments on group capital maintenance	
	requirements	304