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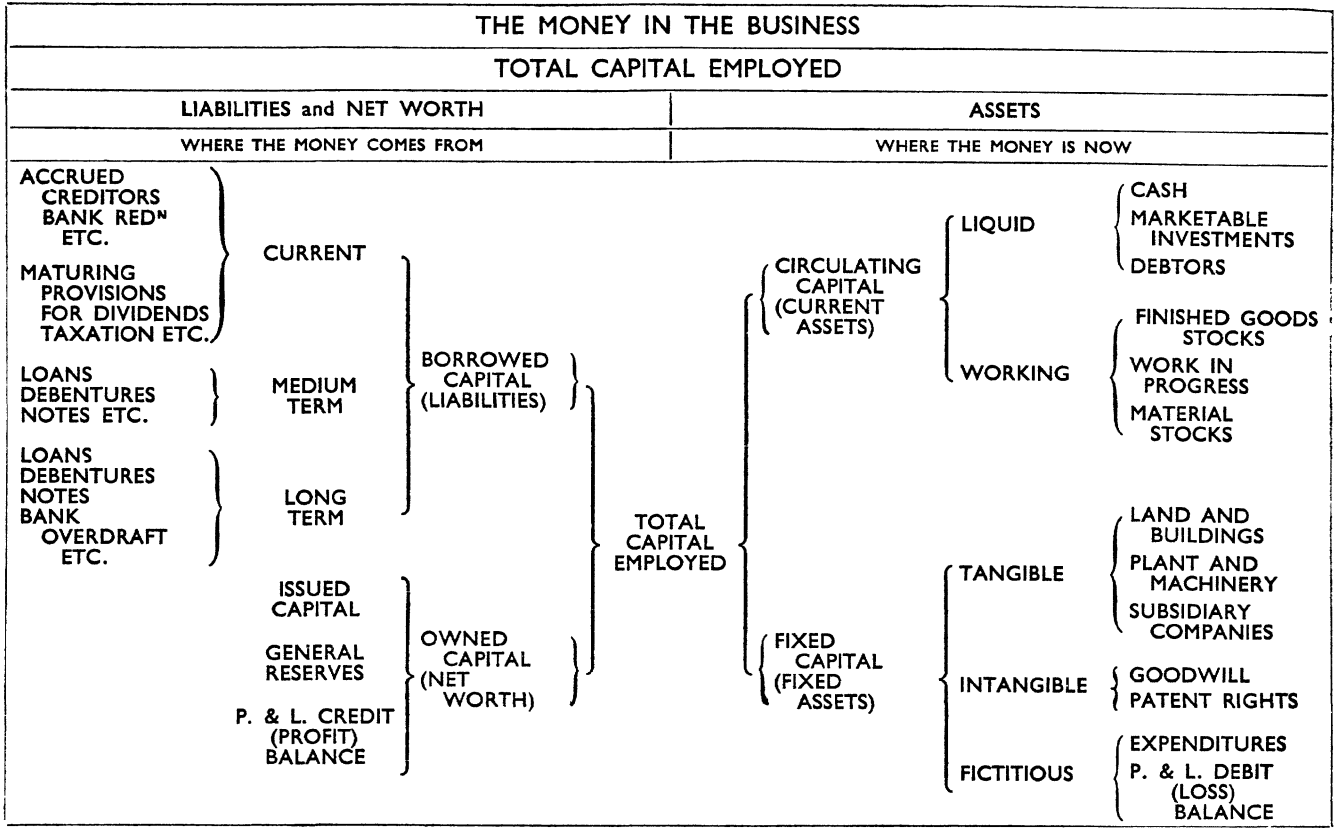
THE MONEY IN THE BUSINESS
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WHERE THE MONEY COMES FROM
ASSETS
WHERE THE MONEY IS NOW
ACCRUED
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THE INTERNAL FINANCE OF INDUSTRIAL UNDERTAKINGS

BY

T. G. ROSE

F.B.I.M., M.I.Mech.E., M.I.P.E.

AUTHOR OF "HIGHER CONTROL IN MANAGEMENT," "BUSINESS CHARTS," "THE MANAGEMENT AUDIT," "COMPANY CONTROL," "TOP-MANAGEMENT ACCOUNTING"

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TO

HARGREAVES PARKINSON

AUTHOR'S NOTE

A FURTHER printing of this handbook having been called for, the opportunity has been taken to bring it into line with the latest (Sixth) edition of *Higher Control in Management*, to which it forms a companion volume, dealing in greater detail with the movement of the money in business.

The term "Liquid Margin Statement" previously adopted has been changed to the more usual "Cash Forecast", and the Statement of Account (Fig. 13) has been altered to the latest arrangement. Further, the lay-outs of the Statements relating to the Working Capital (Figs. 34, 35, 36, 37, and 38), Asset Variation (Fig. 42) and Movement of Funds (Fig. 43) have been modified into the approved forms which have emerged in the course of ten years of practical use. A number of other minor modifications have been made.

No attempt has been made to elaborate the text—though this would have been an easy matter—lest thereby it should fail in its objective of providing a simple but effective basis for the study of how vitally the management of the money in a concern can affect its success or failure.

Now that "management accounting" has been recognized as a specific field of study it is to be hoped that progress will be made in research into normals and standards in business finance, so that in the course of time the same attention will be paid to this aspect of the company's affairs as is given today to the other functions of management in industry and commerce.

T. G. ROSE

LONDON
1957

PREFACE

THIS book is an attempt to set out the main facts that the managing director of a business ought to know and watch with regard to his internal finance. It does not deal with the more abstruse aspects of the problems; the examples given are elementary, since it is easier to demonstrate a principle from simple figures than from complex ones. Many balance-sheets of large companies are extremely complicated, and include items of a controversial nature; those who wish to go more deeply into such matters are advised to study some of the textbooks mentioned in the bibliography at the end of this volume. The author has endeavoured to produce something of a simple and easily-understood nature, which conveys the information without forcing the reader to plough through a mass of technical detail.

Practically every aspect of the subject has intricate and debatable sides to it, and much that is here set down might, by the experts, be argued from a different point of view, or taken to the extremes of exceptional conditions. The author is fully aware of this, but—on the principle that half a loaf is better than no bread—feels that a simple setting out of the basis of internal financial control under normal working conditions, omitting all reference to abnormal circumstances, will at any rate serve to establish certain sound principles, without bewildering the reader by too many details relating to specialized cases of a more exceptional nature, to which these principles might not apply.

At the present time there is a real obstacle to the practical study of the subject, in that it possesses no universally recognized terminology. In fact, the variations in nomenclature to be met with in existing works of reference are apt to be somewhat bewildering to the inexperienced reader. Since there is an obvious advantage in the standardization of terminology as far as possible, the author has endeavoured to meet the requirements of internal financial management control by gathering together and using for the various categories of asset, liability and net worth those terms which, from the evidence of published work, are easily understood, logical and most generally recognized, both in this country and America.

But this does not entirely meet the case, since the study of the problems of internal financial control has shown that to watch the movement of the money month by month a greater degree of sub-division is required than in the normal analysis of annual balance-sheets. Where this problem has arisen, it has been met by using an accepted term in a more specific sense, or a term already used in a specific sense in a published work, but not yet generally recognized.

A certain amount of repetition from chapter to chapter will probably be observed. This is intentional, as it is more usual for a book of this nature to be read in short stretches than straight through. Each chapter, therefore, has as far as possible been made complete in itself, so that the argument will not be unintelligible if the previous chapter has not been read just before.

The author has received help from many quarters, which he desires gratefully to acknowledge. In the first place from Sir Robert Barlow, the Chairman of the Metal Box Company, without whose practical encouragement the book would not have been written at all. It was his appreciation of the value which such a work might have for industry that first decided the author to make the attempt. Mr. A. I. Todman, Mr. Hargreaves Parkinson, and Mr. T. S. Chegwidden have been good enough to read the MSS. chapter by chapter, checking it from the viewpoints of the experienced accountant, the financial expert, and the interested layman. The first-named, in particular, has been untiring in his help. Through their advice and criticism the clarity and accuracy of the text has been greatly improved, though they should not, on that account, be held responsible for the soundness of any of the theories here put forward by the author. Mr. F. L. Wright has helped the author in some of the more intricate problems and evinced an interest in the whole subject which culminated in reading the MSS. in proof. A general manager of one of the largest banks, who desires to remain anonymous, gave most valuable advice on the chapter dealing with the banker's viewpoint. Mr. G. R. Pryor, the Managing Director of Messrs. Edward Pryor and Son, Sheffield, has also given advice on a number of points of importance in practical management.

In the early stages of this book it had been the intention to

include a number of tables of actual results from existing companies. Mr. Brash, of the Exchange Telegraph Company, was most helpful in endeavouring to work out a suitable range of undertakings. Subsequently, however, the author found that so much work was involved in obtaining the requisite figures that the attempt was postponed for the time being.

Thanks are due to the Ronald Press Co., Prentice-Hall Inc., and Messrs. Gee & Co. for permission to quote from books published by them; the books in question will be found indicated by footnotes in the text. Mr. Roy A. Foulke, of Dun & Bradstreet Inc., himself the author of one of the most up-to-date books on financial analysis, has been good enough to provide the latest set of ratios (1944) included in his pamphlet *Expansion from Retained Earnings* (1946), and Mr. Collin Brooks has permitted the inclusion of certain extracts from that admirable short book of his, *Company Finance*.

For the preparation of Figs. 1 and 2 the author has to thank his friend Signor A. P. Castellini, who is better known in Italy than in England as the foremost research engineer of that country. The two diagrams represent a small memento of a political exile borne for eleven years with indomitable courage and unwavering patriotism. The remaining charts have been prepared by Mr. M. C. Wolf, for many years the author's assistant and colleague.

Finally, the author would like to acknowledge how much he owes to the work of Mr. J. H. Bliss, whose book *Financial and Operating Ratios in Management*, published in 1923, first induced him to take an interest in this specialized field. Many other writers have covered much the same ground in subsequent years, but the simplicity and thoroughness of method adopted by Mr. Bliss have never been equalled.

The field of research in connection with the movement of the internal finance of industrial and commercial undertakings is a very wide one, and up to the present time has been little explored. Much still remains to be done in collecting and tabulating the ratios and results of different classes of undertaking. At some future date the author hopes to prepare a second volume in which each aspect of financial control is demonstrated by a range of results taken from the actual working figures of a representative number of companies in as wide a range as possible

of the different classes of industry. But the preparation of a survey of this nature is a lengthy affair, and in the meantime it is hoped that the simplified approach to the problem which has been adopted in the present volume may provide some small assistance to those who direct and maintain the industrial security of the nation.

T. G. ROSE

LONDON
1947

CONTENTS

CHAP.		PAGE
	Author's Note	ix
	Preface	xi
I.	INTERNAL FINANCE	1

SECTION I
THE MONEY IN THE BUSINESS

II.	HOW MUCH IS IT?	5
III.	WHERE DID IT COME FROM?	19
IV.	WHERE IS IT NOW?	33

SECTION II
THE SOURCES OF INFORMATION

V.	THE BALANCE-SHEET	51
VI.	THE PROFIT AND LOSS ACCOUNT	66

SECTION III
THE MOVEMENT OF THE MONEY

VII.	THE TURNOVER OF TOTAL CAPITAL EMPLOYED AND THE INCIDENCE OF PROFIT	88
VIII.	FIXED CAPITAL INVESTMENT	105
IX.	CIRCULATING CAPITAL FLOW-SPEED	115
X.	TRADING ON THE EQUITY AND THE COST OF BORROWED CAPITAL	127
XI.	DEBTORS AND CREDITORS	133
XII.	WORKING CAPITAL AND THE CASH FORECAST	147
XIII.	THE ASSET VARIATION STATEMENT	165

SECTION IV
MATTERS ARISING

CHAP. PAGE
XIV. OVER-TRADING AND UNDER-TRADING . . . 172
XV. ADDITIONAL FUNDS 186
XVI. THE BANKER'S VIEWPOINT 199

SECTION V
THE CONTROL OF THE INTERNAL FINANCE

XVII. FINANCIAL CONTROL 207
Bibliography 231
Index 233

THE INTERNAL FINANCE OF INDUSTRIAL UNDERTAKINGS

CHAPTER I

INTERNAL FINANCE

To most people the word "Finance" implies share issues, investments, profits, quotations on the Stock Exchange, and all the other factors in the art and science of money-making. The literature of finance in this sense is extensive and varied, in the shape of handbooks for investors, treatises on how to read a balance-sheet, and detailed descriptions of all the complex affairs of "the City." None of these aspects will be dealt with here; the object of this volume is to provide those who manage industrial and commercial undertakings with a simple explanation of the movement of the money employed in the business, and to set out a framework of monthly records and returns from which they may be able to watch that no pitfall lies ahead—or, if there is one, to make it easier to see where the pitfall lies, so that action can be taken in good time to avoid it.

It is curious that the realization of the importance of this internal financial control should have come so late in the day. A vast amount of thought has been applied to the development of production technique, so that, in many directions, we seem to have reached a stage beyond which little major improvement is possible, except in certain specialized fields or where new products introduce fresh problems. Again, the technique of selling, with all that appertains to it—market research, distribution, advertising, packaging, and so forth—has been most minutely analysed, though admittedly a number of problems connected with distribution remain to be solved. Technical research and development, accounting and costing, office organization and the intricacies of personnel management—all these have been studied, and possess a literature of their own. But the internal financial structure of business undertakings, upon the safety of which in the aggregate the industrial activity of the nation depends, has so far received little attention from the point of view of management

control, however much it may have been considered from the aspects of investment, banking credit, and accountancy.

Commerce and Industry

However efficiently the production and distribution of goods and services may be carried on, it will all come to nothing if the money in the business is not handled with equal efficiency. *Commercial* activities are usually based upon the profitable use of money, and therefore in the transactions the money available (and how it can best be used), is more often than not the guiding factor. But *industrial* activities, arising as they do in most cases from the production of goods by means of buildings, plant, machinery and equipment of a more or less extensive nature, have a tendency to bring into prominence the goods produced, and relegate to the background the money upon which the entire proceedings are really based. Thus there arises the danger that the business may be carried on without proper consideration of the movement of the money which is induced by the management policy—and this may well bring about difficulties, and even disaster.

There is, therefore, a real need for the study of the constant movement of the money in the business, and the setting-up of standards from which the structure of the internal finance can be watched, to ensure that it is, and remains, sound and capable of withstanding any strain that may be put upon it by the management policy. The creation of such standards for an individual enterprise is not a matter of great difficulty. But since management is based on comparison, to study individual cases is only to go half the distance. Standards are required by which the results of one business can be measured against the results of another doing similar work. This is one of the principal difficulties in connection with the subject, since although the seven primary functions of management emerge without exception in all industrial and commercial undertakings, the circumstances vary in every case, and therefore the results obtained will vary as well, even to the extent of what is bad in one concern being good in another. However, practical experience has shown that there is now no difficulty in arranging the accounts of any business so that by a study of the figures so presented it is possible to set up the standard which should be maintained.

Naturally this requires monthly or thirteen-period accounts, and these must be laid out on management accounting principles and not on standard audit lines. Auditing practice, being based on completed, or static, results, differs widely both in its approach and definitions from industrial accounting practice, which is based on continuous, or dynamic, results.

It is important that the reader should realize from the start that this difference exists. The task of the accountant in an industrial and commercial undertaking is altogether different from that of an auditor, and far more difficult. If he is to assist his chief to control the movement of the money, he must, in addition to his professional work, know how to present the monthly results so that the position can be readily understood by someone unversed in the technique of accountancy.

Controlling a Business

Control must be applied to the general management of a business—the seventh function—just as much as to the other six; Production, Distribution, Development, Accounts and Finance, Legal and Secretarial, and Personnel and Industrial Relations. And since the business stands or falls on its financial basis, the control of the financial aspect of affairs needs even more care than that of the production or the selling. It is quite possible to maintain this control, and it will be found that the logic behind it is really quite simple.

But it should never be forgotten that the management of an industrial undertaking cannot be reduced to a formula. The control schedules and simple charts may record what has occurred, what is occurring, and what is likely to occur in the future. But when the question "Why?" is asked—as it always should be—it may need much thought and careful analysis before the true answer can be found. The control records exist to promote this analysis, not to perform it. To take one simple example—the incidence of taxation in its present form leads to financial policies which differ widely from what would have been considered sound practice a decade ago. A movement of funds, apparently unfavourable, may be found on careful investigation to arise from a motive which is perfectly sound from the point of view of maintaining the security of the concern.

The control results are in themselves merely indicators of what

has actually occurred. Unless the controller makes certain that he understands *why* it has occurred, he runs a grave risk of taking action that may be ill-judged, and perhaps damaging.

The dangers surrounding the handling of the internal finance are relatively few in nature, and easily understood. They are slow in growth, but—unfortunately—almost always equally slow in remedy. Their principal threat lies in the risk that they may not be recognized in their early stages.

> No informed observer of joint stock enterprise during the last decade and a half can have failed to perceive two features, common to all of the many catastrophes that have resulted in serious loss of capital.
>
> First, in almost every case, failure has arisen, not because a wrong commercial policy was initiated, but because a policy, shown by the results to be wrong, was persisted in too long. Secondly, the inability to abandon a losing game and find a winning alternative was largely attributable to this, that neither the directors nor the management realized the extent of the failure until its redemption had become impossible.*

Those words referred to the control of the undertaking as a whole, but they are equally true when read in direct reference to the financial aspect of that control. If the policy which is causing financial danger signals to arise is persisted in, without steps being taken to meet and remove those warnings of disaster, it may not be long before the situation gets out of hand. Yet the cases in which the company might have been saved, had some system of financial control been in use, must be infinitely more numerous than those in which nothing could be done.

The financial hazards of industrial enterprise lie in unwise investment. Every writer on the subject emphasizes this fact, and warns the industrialist against the dangers that are latent in an abnormal or distorted financial structure. Undoubtedly, if one thing is needed more than anything else to ensure the prudent handling of the money invested in the business, it is a "perpetual inventory" of that money on some simple interlocked basis. It is the object of this volume to show that such an inventory is not only possible, but practical, and that by its use a managing director should be able to control the movement of the internal finance of his business with safety and success.

* The late A. H. Pollen in the Foreword to *Higher Control in Management* (Pitman).

SECTION I

THE MONEY IN THE BUSINESS

CHAPTER II

THE MONEY IN THE BUSINESS

(a) How much is it?

WHATEVER its nature, a business cannot be run without money, and industrial or commercial activity, if it is to be considered as being carried on in a satisfactory manner, must show an adequate return on the money employed to those who own that money.

The first step, therefore, in establishing a control over the movement of the internal finance of a business is to check the amount of money involved—usually known as the "total capital employed." Where is that figure to be found?

Simple as that may appear, and simple as it actually is, experience seems to show that few individuals who handle the finances of an industrial undertaking can give the answer without hesitation and some thought. This is probably due to the fact that in the field of industrial finance, up to the present, interest has centred chiefly on dividends paid on issued capital, or on the market value of the shares from the yield standpoint—and neither of these vital matters is based on the total capital employed. They are external, not internal, yard-sticks. It is only the board of a company and the shareholders who are, or should be, concerned with the results obtained from the total capital employed, as evidence of the efficient handling of the company's finances.

THE TOTAL CAPITAL EMPLOYED

The total capital employed in a business can be found without difficulty; it is the sum standing at the foot of the assets side of the balance-sheet, less any "fictitious" assets such as losses, or expenditures of one kind or another which the company cannot at the moment write off. These have to be carried forward amongst the assets so that the balance-sheet will balance.

Now this total capital employed in the business is not a fixed

amount, like the issued capital owned by the shareholders. It can fluctuate to a considerable extent, and quite rapidly, from day to day. Since it is recorded by the figure at the foot of the assets side of the balance-sheet, it will vary as the assets item values vary. Stocks of materials are increased, finished goods accumulate, and perhaps debtors do not pay promptly, so that this item, also, grows. All these represent money employed in the business at the moment—though where that money has been obtained from is another matter. It may have been borrowed temporarily, by way of an overdraft from the bank, or it may have come in through the profits made on the trading. But, however it has come, it is now employed in the business.

A month or two later, perhaps, the finished goods will have been sold off for cash, and the outstanding debts have been collected. Out of the proceeds the bank overdraft will have been paid off—and the total capital employed falls off once more. So the figure will vary from day to day, increasing and decreasing through the transactions of the company, within limits which under normal trading are not difficult to ascertain. It is upon the effective use of this variable sum that the whole structure of financial control must be based.

Surplus Funds

Many concerns possess surplus funds which are invested in Government or other "gilt-edged" securities, and are kept as cash reserves outside the business. They form part of the total capital employed, although they are not employed at the moment in trading. It also frequently happens that a concern owns housing estates, cottage property, or perhaps a factory or warehouse that has been let. These assets produce income which will be brought into the final profit shown by the going concern. The money they represent is also not employed in the company's proper trading activities. It is employed in other ways—but none the less it must be counted in the "total capital employed," and cases can be found where capital employed in this manner contributes as much to the final result of the going concern as is achieved by the actual trading.

The question might be asked, "Why take the figure at the foot of the assets column, rather than the figure at the foot of the liabilities column? They are both the same, and surely the latter

shows the total capital employed more clearly, since on that side are set out the issued capital and the reserves and so forth." The answer is that the assets column shows where the money is now, and the liabilities column shows where the money came from. Therefore, when it is desired to find the total capital employed in a business at a given moment, the obvious place to look for it is at the foot of the column summarizing where it is now. Any necessary deductions of fictitious items can then easily be made.

The fact that a loss made in past years and not yet recouped is shown as an asset is sometimes the cause of some surprise to the layman when he first begins to study the make-up of a balance-sheet. This is due to the exigencies of double-entry book-keeping, in which credits and debits must balance to prove the accuracy of the accountancy. Where profits are being made these will be shown in their normal place on the other side of the balance-sheet, and the assets total then becomes a straightforward one.

Two Forms of Capital

The total capital employed in a business is divided into two main categories, and two only—known as the circulating capital and the fixed capital.

The circulating capital is used to provide the material, wages, salaries and all the other expenses that are necessary in order to make and sell the product or service offered, and to manage the concern whilst so doing.

The fixed capital is used to provide the means for that production, in the shape of land, buildings, plant, machinery, tools, office fixtures and fittings. The term is also used to cover all other items upon which capital has been expended in such a manner that the money cannot be used as circulating capital.

The first category, the circulating capital, is subdivided into a number of classes. The movement of money between these classes, with the effect of that movement on the circulation of the whole, is where the principal internal financial problems of an industrial undertaking are to be found.

The second category, the fixed capital, is similarly subdivided into classes, all of which record money invested in the means of production or in items which do not circulate. Such money disappears altogether from the scene—as money—until the items on which it has been spent are once more turned into cash, a

contingency which, in the case of property investment, is not expected to arise, except in a very minor fashion, unless the company is wound up and ceases its operations.

Fig. 1 shows this subdivision of the total capital employed, in

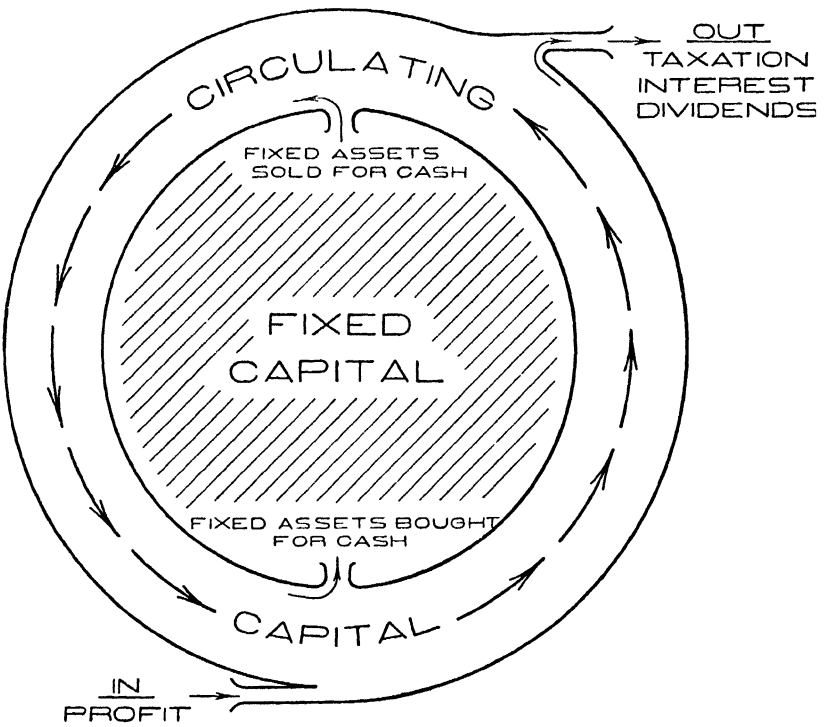


FIG. 1

its simplest form. The fixed capital is the core of the business, the main bearing round which the circulating capital revolves. In some types of business the fixed capital core may be very small in relation to the circulating capital, as in a mail order concern, where the "means of production" consist entirely of office accommodation and fixtures, plus warehouse and packing facilities. In a heavy engineering business the proportion may be reversed,

since a considerable sum of money has to be invested in buildings, plant and machinery before the trading can be carried on.

It is important to appreciate clearly right at the outset the difference between these two forms of capital—fixed and circulating—and the vital fact that at any given moment in the life of a concern *only these two forms of capital exist.* There is no third form of capital in the business.

Circulating capital can be turned into fixed capital, and vice-versa. When machinery is bought or extensions and improvements are made to buildings out of profits, the sum involved moves from the circulating capital into the fixed capital. When an obsolete machine is sold for scrap or an unwanted building is disposed of, the sum received—provided it is not required for other machinery or buildings—would pass back into the circulating capital and be used for the company's trading again. An interchange of this nature goes on in the background of most businesses, but the transactions are usually of a very minor nature, and the movement does not affect the fact that every item of the total capital employed in any business at any moment is to be found either in the circulating capital or in the fixed capital.

Importance of the Circulating Capital

Since the fixed capital, once invested, "stays put" to all intents and purposes, it is obvious that the more important aspects of internal financial control in a going concern will lie with the circulating capital. The effective use of the fixed capital certainly has to be carefully watched, and it is not unusual to meet occasions where management policy, through undue optimism, has gradually created an adverse situation by overstepping the bounds of due proportion between the amounts invested in the fixed and circulating capital. But the control of the movement of the fixed capital is, so to speak, long-term or static; the control of the circulating capital must be essentially immediate or dynamic, since the circulating capital is perpetually in motion, and that motion, if not effectively controlled, may lead to disaster in a relatively short time.

There is one further point about the fixed capital that is relevant at this juncture; it is subject to continual shrinkage owing to the depreciation of the value of the means of production through use. This depreciation is assessed in various ways, at

different rates according to the particular asset in question, and accountancy manuals contain tables setting out the recommended practice in the matter. So that unless replacements are made the sum invested in the fixed assets grows gradually less year by year, the figure recorded in the balance-sheet purporting to show what those assets are now worth after so many years of use.

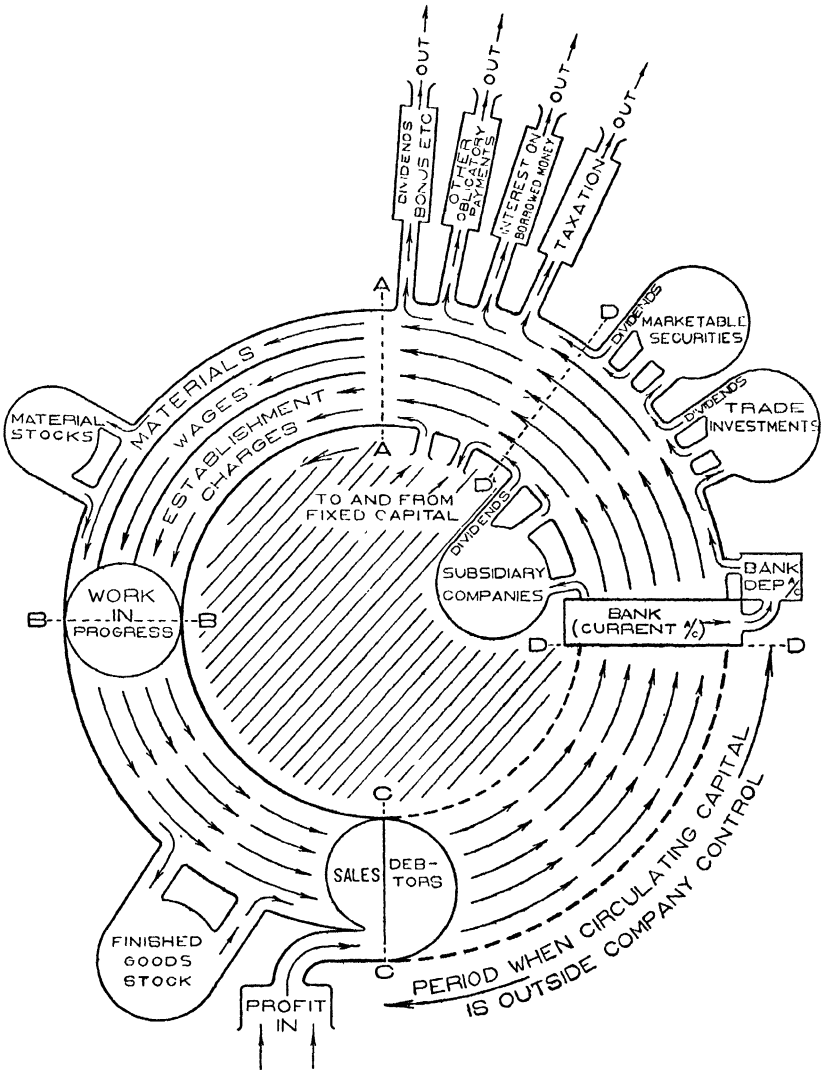
This is not a place for a dissertation on the various bases of asset valuation. Readers interested in such matters should study the recognized manuals on accountancy. The valuation adopted for normal balance-sheet preparation is original cost less depreciation, plus cost value of additions. The shrinkage should be made good by replacing worn-out or out-of-date equipment by new, and nominally the sum written off the original cost, through depreciating its value, should be set on one side, and, as need arises, used to replace the old fixed assets with new ones. In practice this is very seldom done, new plant being purchased as and when required without reference to the nominal sum owed to the fixed assets through the depreciation.

Unless money is specially introduced into the company for the purpose, new equipment will have to be paid for out of the circulating capital (the only cash available in the business). Such money, therefore, vanishes from the circulating capital, but it is not an "out-payment." It stays in the business, and is merely transferred from one kind of capital to the other. It goes inwards, not outwards, though the effect in diminishing the circulating capital used for trading purposes is the same. Hence the usual inclusion of "Capital expenditure authorized" amongst the current liabilities for which the managing director has to budget.

As has been said, the main problems of internal financial control are to be found in the movement of the circulating capital, and to illustrate this Fig. 2 is an enlarged view of the circulating capital portion of Fig. 1, with more explanatory detail included.

The Movement of the Money

The movement of the circulating capital is a continuous process which starts the moment the company begins trading, and continues unbroken until it is finally wound up. All the year round the circulation goes on, sometimes waxing and waning according to seasonal demands, but never at any time coming to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C
SALES
DEB-TORS
C
FINISHED GOODS STOCK
PROFIT IN
PERIOD WHEN CIRCULATING CAPITAL IS OUTSIDE COMPANY CONTROL
CIRCULATING CAPITAL

FIG. 2

a standstill. To make the cycle clear it may be simplest to follow, say, an individual £100 from the point where it is first used for trading until it arrives back at the starting point for further use, bearing its profit with it.

The £100 starts at the point A; let us say that £30 of it is spent in wages, £25 in materials and the remaining £45 in the establishment charges—selling expenses, management, office staff, postage, lighting and heating, etc.—necessary to carry on the business. Some of the material purchased is placed in stock until required, when it will pass into the factory at some later date. As soon as the work has started on the material obtained, the three forms of expenditure combine at B to form "work-in-progress," which, in due course, becomes finished goods. Some of these finished goods are delivered direct to customers, and others go into stock until a purchaser is found. On dispatch, at C, an invoice is made out to the customer for the full sale price, which includes materials, wages, and all establishment charges, plus, say, 10 per cent profit, or £110 in all. The customer then becomes a debtor for £110. (On the debtor side of C, therefore, the flow widens by 10 per cent and continues thus round the circuit to D^1.)

This is a most important stage in the proceedings, for at this point the circulating capital *passes outside the company's control*, and it should be noted that this is the only stage in the circulation when it is in this position. All through the rest of the cycle the money or the value obtained for the money is inside the company's control, and can, therefore, be increased or decreased to suit management policy. But once the goods have been dispatched and the invoice rendered, the company stands out of its £110 until such time as the debt is paid.

In due course, probably when the normal commercial credit period has elapsed, the £110 returns to the firm at D, more often than not in the form of a cheque, which is at once sent to the bank, where it is placed to the current account of the company. It is then available for drawing on for the next weekly wages payment, or for paying a material-supplier's invoice, or for any other of the expenses which the company has to meet—and so the cycle starts again, this time with £110 to be spent instead of the original £100. The £110 goes on round the circuit, now passing out through the sales as an invoice for £110 plus 10 per cent—£121—and when it

returns as a debtor payment for the second time, the original £100 will, in two circuits, have added £21 to the circulating capital employed in the trading.

Out-payments

But no company can continue in business without having to pay out cash to one special claimant or another, claimants who live outside the path of the circulating capital and who give no current return of goods or direct services for what they receive. Taxation must be paid out in cash to the Inland Revenue authorities, and where any of the total capital employed has been borrowed at a fixed rate of interest, that interest must also be paid in cash. There may also be other obligatory cash payments to be made, such as pensions or contributions to employee funds. Finally, after all these prior claims have been satisfied, there will be dividends to be paid in cash to shareholders in return for the use of the money they have invested, and perhaps bonuses to the staff.

All these, and any other cash payments that may arise in which no return is received in the shape of goods or services, have to be made from appropriations of profit drawn out of the circulating capital. That does not mean that all have to be met from the profit margin, since fixed interest, for instance, is part of the establishment charges of the business, and as such is recovered in the price of the goods. Taxation only arises where profits have been made, and dividends are dependent upon the profits being sufficient to justify a distribution of some part of them to the shareholders.

It is important not to confuse the one-way payments out of the circuit which take place between D^1 and A with the payments made between D and D^1 for investments which can return at some subsequent date, or with the payments for materials, wages and establishment charges which return into circulation in the form of goods or services, between A and B.

The stage between D^1 and A, where the cycle re-starts, is the point at which these external payments are made. Between D^1 and A, therefore, there is a shrinkage of the circulating flow. The profit portion has been exaggerated in the diagram, in order that this shrinkage can be more clearly seen. Actually, of course, the circulating capital ring is continuously expanding and

contracting, and seldom, if ever, returns at the end of a circuit to its original width at A.

External Reservoirs

Between D and D^1 three external "reservoirs" will be observed, used to keep money in when for some reason it cannot be used for circulating purposes. It can be placed on deposit account at the bank, where it will earn a small interest and be ready for immediate use. Or it can be invested, either in trade (unquoted) or in marketable securities; in the former it may earn more, but may not be so easily turned into cash as it would be if invested in the latter. It is the lack of such "reservoirs" which so frequently ends in a company obtaining temporary assistance from the bank in times of improving trade.

There is a further "internal" reservoir in the shape of investments in subsidiary companies. In this case the capital invested is part of the fixed capital, as its internal position denotes. But dividends paid to the parent company will be in cash, and this cash interest on the money invested will pass into the circulating flow.

Bank interest on a deposit account will accrue to the sum on deposit, and will not pass into the circulating flow.

If the management is conservative and adopts the laudable principle of putting as much of the profit as possible back into the business, the total circulating capital will naturally expand into a broader and broader stream as the years pass. Its ultimate breadth may be limited by the market saturation point for the goods at C and any further pressure will result in an unhealthy swelling of the stock "reservoir." If manufacturing pressure be continuously applied, and the sales cannot keep pace, the finished stock is bound to rise. This means circulating capital will be unduly locked up in such stock, and the money flow returning to the bank at D will be only a proportion of the work-in-progress money flow at B. After the necessary payments outside the circuit have been made, the money flow returning to A, even with such profit as has been obtained on the goods that were sold, may not be sufficient to meet the requirements for materials, wages, and establishment charges at the higher rate of production, and the company, therefore, will soon find itself in difficulty for ready money, unless it can sell off the accumulated stock and put the money back into circulation once again.

It will be seen that the left half of Fig. 2 (A, B, C), represents the manufacturing period, and all the manifold problems connected with the proper co-ordination of purchasing, production, and sales. The circulating capital can get entangled in—

(*a*) Material stocks which are excessive, or have been ordered too far in advance, or are of the wrong quality, or are unbalanced.

(*b*) Work-in-progress which is excessive, or of the wrong type of goods, or unbalanced in relation to assemblies.

(*c*) Finished goods stock which is excessive, or of the wrong type of goods.

All these matters are within the responsibilities of the buyer, the works manager and the sales manager, and there is little that the financial expert of the company—usually the hard-worked and much-worried cashier—can do about it, beyond making verbal protests when his colleagues land him in difficulties for cash. But once C is passed, the stage from C to D is where the cashier holds undisputed sway—except in so far as the sales manager may arrange for special credit terms for favoured customers.

Once the cheques have reached the bank at D, it usually lies with the chairman and his colleagues on the board to decide how the finance between D, D^1 and A shall be handled. Upon the decisions so made the financial structure of the business will depend.

The Management and the Money

The intimate nature of the connection between the internal movement of the finance of a business and the day-to-day management problems is easily overlooked. Long habit of thinking of industrial finance in terms of share quotations, new issues and such matters, all aiming at making money *out of* industry, has tended to make this aspect seem more important than that of making money *in* industry. Add to this the general secrecy which more often than not surrounds the money side of a business, and the complications of technical accountancy—and it is not difficult to see why so few production managers, sales managers, chief storekeepers or buyers have any real understanding of how their activities influence the financial position of the company. In how many manufacturing concerns does the works manager

receive a weekly return of the value in cash of his raw material stocks, work-in-progress, and finished goods stocks? Yet, from the viewpoint of the control of the internal finance, these are vital figures which should be continually checked, week by week, if possible, against set normals. If it is necessary for the departmental managers to be expert in their own functions, that expertness is surely incomplete if it does not include a clear understanding of the influence of their work on the movement of the money in the business, and the normals to which they should work under existing conditions.

This lack of contact is more likely to be found in industrial concerns than in commercial ones. In the latter the circulating capital will form the more important section of the total capital employed, and since the prosperity of the company will very largely depend upon the rapid turnover of the circulating capital, the attention of all concerned will be concentrated on that. In commerce, therefore, buyers, stock-keepers, and sales staff are usually managing their jobs all the time on a money basis, often with weekly checks on the state of affairs. Such fixed capital as exists will probably be found invested in buildings, fixtures and fittings, the means by which the commercial activity is carried on. But the main object of commercial undertakings is to turn money into goods or services, and those goods or services back into money again, as quickly and as profitably as possible. Hence, the lengthy and complicated stage of processing raw materials into finished goods, which is responsible for so many of the management problems in industry, in commerce does not exist at all. The financial aspect is therefore more plainly visible.

Time-period Variations

Although the diagram shows—quite correctly—that the flow of the circulating capital is continuous, the various operations involved repeat at different time-periods. Wages must be paid weekly, and where, therefore, production is increasing, the pay-roll will be the first indication of it. Increasing sums for wages will have to be paid out, it may be, for several months before the cash return from the sales of that increased production can be hoped for. Materials have to be paid for in accordance with the normal trade terms of the type of business; these vary considerably, from spot cash with order to three months' credit or more.

Establishment charges largely call for monthly payments, such as salaries, though a few are paid quarterly, half-yearly, or annually.

The period between the first payment for wages and the completion of the goods ready for dispatch varies very widely in different classes of industry. With light articles of a simple nature the period may be only two or three weeks, but as the goods grow heavier or more complicated the period will lengthen up to several months. In heavy engineering or in shipbuilding it may be a year or more before the goods are completed; here the customer usually makes interim payments on a basis agreed when the order is placed, so as to assist in financing the long period of manufacture. In any case, the commercial terms of payment come into force as much for debtors as for creditors, and there may be an interval of anything up to a couple of months before the customer pays his account. It is for this reason that discounts are frequently offered for quick payment, as it is to the advantage of the selling firm to have its money back into the circulating stream as quickly as possible. If 5 per cent profit can be made every time £100 turns over in the trading, it is obviously to the advantage of a company to offer, say, $2\frac{1}{2}$ per cent discount if its £105 invoice is paid within fourteen days, rather than wait perhaps six weeks for the full amount. Thereby it will obtain the use of £102 7s. 6d. for an extra month, and if the period of manufacture is a short one, it may be able to get another £105 invoice out in that time.

We shall examine the effect of this time-lag on the circulating capital in a later chapter, since it is a potent factor in over-trading problems.

Where the Profit Comes in

The reader will observe that, whilst there are numerous exits for the money from the circulating capital, there is—apart from possible contributions from the fixed capital, and dividends from subsidiaries, trade investments and marketable securities—only one entrance for earned money which belongs to the company; through the profits. Unless a further issue of capital is made, or funds are borrowed, new money can only enter the circulating capital through the profits made on the sales, and the lack of understanding of this simple fact has been responsible for the disappointment of those who have advanced money for development

purposes to small businesses, with the confident expectation of its being repaid in a short time. If, for instance, a loan of £5000 was made, to be repaid at the end of five years, the company will have to accumulate that sum, perhaps in the "marketable securities" reservoir, during that period. If the whole of the £5000 is used for circulating capital, merely to provide the sum required for repayment the borrowing company will have to make, say, £1000 profit per annum before deriving any benefit from its use, apart from any fixed interest payable on the loan.

When large profit margins exist, such a task may be possible, but in many cases the profit on the trading is not sufficient to provide a surplus, over and above normal expanding business requirements, for the repayment sum to accumulate. Hence such loans, once made, are apt to turn into permanent investments, by no means easy to liquidate.

The circulating capital can, of course, be increased by the use of borrowed money. Whilst such a practice has its advantages, it also has its dangers, as we shall see in the next chapter.

Summary

Summarizing the foregoing, therefore, the conclusions are—

1. The total of the money in the business is shown by the figure at the foot of the assets side of the balance-sheet, less any fictitious assets.

2. The total capital employed in the business is divided into two classes—

(*a*) The circulating capital. (*b*) The fixed capital.

3. Capital can move from one class to the other, but only these two classes exist in the total capital employed in a going concern.

4. The circulating capital can usually be found in—

(*a*) The bank, either on current or deposit account.
(*b*) Marketable securities.
(*c*) Debtors.
(*d*) Finished goods stocks.
(*e*) Work-in-progress.
(*f*) Material stocks.

5. The circulating capital is increased by profits and decreased by out-payments, or by investments in fixed assets.

CHAPTER III

THE MONEY IN THE BUSINESS

(b) Where did it come from?

WHEN a company starts trading it usually does so with a capital sum "authorized" and "issued." The authorized capital is that amount set out in the memorandum of association upon which stamp duty has been paid. The issued capital is that amount of the authorized capital which, according to the board's decision, is necessary for the running of the new business for the time being and is therefore offered for subscription by would-be shareholders; this may or may not be the whole of what was authorized, and may or may not be fully paid up by the shareholders.

The form in which this capital is authorized and issued may be of many different kinds. The consideration of these belongs to the field of external rather than internal finance, and the reader is referred to the bibliography at the end of this volume if he wishes to go further into the different denominations of stocks and shares that are to be met with on the market, and their relative status. The subject is of great interest, and well deserves—and repays—study by those who aspire to an understanding of the financial aspect of industrial activities.

So far as we are concerned here, however, the point is that issued capital represents money subscribed for, and therefore owned by, the different classes of shareholder. In a great many businesses this makes up the greater portion of the total capital employed.

The company, once started, proceeds with its trading, makes profits, pays dividends, and from the residue of those profits not paid out in dividends, accumulates a credit balance to the profit and loss account which it uses to extend its activities, or, as the financial writers like to put it, which it "ploughs back into the business."

As soon as the credit balance of the profit and loss account has risen to a figure which will protect normal dividends from fluctuation for a year or two, further surplus as it accrues is usually transferred year by year in round sums to a general

reserve. This is merely a book entry, since the credit balance of the profit and loss account is also a reserve of a general nature. But if the surplus on trading be allowed to accumulate in the profit and loss account indefinitely, shareholders are apt to consider that money in this account is available for distribution as dividends, and make suggestions accordingly.

The Net Worth

So far, therefore, the money has come into the business by the issue of capital, subscribed for by shareholders, and by the accumulation of profits which are kept in the business either as a general reserve or in the profit and loss account. This money is all the property of the shareholders, and is therefore called the shareholders' equity, or the "net worth" of the business. It is a liability in the sense that if the company were wound up it would have to repay to the shareholders their original capital and their share of the surplus; for that reason it is recorded on the liabilities side of the balance-sheet. But since the shareholders are the owners of the business, and there is a very wide difference between owing money to oneself and owing money to other people, what might be called the internal and external liabilities should always be shown separately. Of recent years it has, in fact, gradually been becoming the practice in this country to show the net worth under a separate heading, so that the total of the liabilities and the net worth balances the total of the assets on the other side.

There remains a third source of funds coming into a business which is almost as inseparable from normal trading as the two so far mentioned—and that is the money borrowed from the company's creditors. Unless spot cash is paid with order or on delivery for materials, their value will be "borrowed" by the company until the invoice is paid. The sum recorded in the balance-sheet under the heading of "creditors" represents, therefore, borrowed capital. This is a liability, the first and usually the most important of the items shown as such, since it is money borrowed only upon the security of the normal terms of payment in the particular trade, and upon the company's reputation for stability. Hence the trade creditor, whilst the commonest of all forms of borrowed capital, may be also the most dangerous if not handled in a sound commercial way.

Creditor Borrowings

This is a point which should be carefully considered by those who are taking up the study of the internal finance of industrial undertakings. In most businesses, creditors are taken as a matter of course, and only come into the picture when they begin to press for payment. Firms of good standing, working on monthly terms, pay their due creditors' accounts as regularly as clockwork, on a certain day each month, and when trade is moving smoothly the total sum paid out may vary only slightly on each occasion. Normally the creditor neither requires nor expects any security for the sum owed him, though most firms have a credit man, or department, responsible for making inquiries as to the credit status of a new customer before his order is accepted.

Where reports (obtained through the recognized special agencies which exist for the purpose) are unsatisfactory, an order may be refused, or only accepted on special payment terms. This is done, of course, to avoid bad debts, and the creditor only begins to press for payment when he sees the prospect of incurring a bad debt.

Firms of good reputation working on the normal basis of commercial transactions will experience no trouble with these funds "borrowed" from their creditors. Such borrowing is accepted as customary, especially in trades where discounts for payments by a certain date are not the customary practice, and many concerns finance their operations principally by this method.

Creditor money is only dangerous in the sense that a creditor, being unsecured, is liable to become nervous should he find that payments are beginning to be delayed. Whilst payments are regular, he remains quiescent, but when he does not get his money at the date expected, he may become vocal, and start a process of pressure which soon develops, as other creditors join in, into a situation of increasing difficulty that may end in the collapse of the firm. But it is undoubtedly a fact that many concerns can finance their business quite profitably by obtaining extended credit from their suppliers, and only allowing short-term credit, or making cash sales, to their customers.

The Financial Structure

In every trading concern, therefore, there will be found—

Owned Money
- Issued Share Capital.
- Credit Balance, Profit and Loss Account.
- General Reserve (if any).

Borrowed Money
- Creditors.

There is no limit to the length of time that this make-up may continue, and it is still possible to find here and there companies trading on quite a large scale which have maintained their original capital structure, kept their creditor money within normal commercial limits, and obtained all the finance that they required for expansion from the profits made by trading. Such conservatism, however, is not of frequent occurrence, and the examples are more likely to be found in the smaller, privately owned businesses than amongst public companies.

The more normal procedure when a company has been trading for some years is for it to find that it requires more capital, either circulating or fixed, or both, if it is to take advantage of the opportunities that it has created by its activities. Since the authorized capital has been issued, and to increase it may be difficult, recourse is had to borrowing. Usually in the first instance an application is made to the company's bank manager for overdraft facilities, up to a certain limit.

Bank Overdrafts

Now a bank is at all times ready to provide temporary accommodation for trading purposes, once it has satisfied itself as to the security offered for the advance. Probably by far the greater proportion of existing industrial concerns utilize bank overdraft facilities for trading purposes. Such advances, though supposed to be temporary, are, in actual fact, permanent (as long as the security is maintained) in the sense that the sum borrowed rises and falls in accordance with the circulating requirements as they are influenced by trading conditions, but is never completely paid off. To this the bank raises no objection, so long as the

money lent is used strictly as circulating capital, since bank funds are kept as fluid as possible. The bank, for this reason, will not usually advance money for fixed capital expenditure, whatever the security offered, since such money becomes a permanent investment, and can only be repaid by withdrawals from the circulating capital—a difficult and often impossible thing for the company to arrange in times of expanding trade.

The bank overdraft is the first step, as a general rule, on the road to long-term borrowing. There is nothing wrong, financially, in the borrowing of capital for the extension of business. In fact, from many points of view it has considerable advantages. But it must be remembered that as soon as this first step is taken, the trading profit on the borrowed money is immediately reduced by the sum which has to be paid for its use.

When the limit of overdraft set by the bank becomes insufficient to provide the capital required for expansion, the next step—apart from a further issue of shares of some kind—is usually to issue debenture stock bearing an attractive interest and secured by a lien on the assets of the business in whole or part. This converts the temporary loan from the bank into permanent loan capital provided by the debenture-holders, who become, in a sense, shareholders in the business on a different plane, i.e. they do not own any part of the business so long as it continues to pay the debenture interest, but have the right to take over the business if the interest is not paid. They are, in fact, long-term creditors, with the right to step in first and get their money if the firm falls into difficulties. In consequence, once a firm has borrowed money on a debenture, its trade creditors are apt to be more easily alarmed than if no prior claim of this nature existed, and the state of pressure mentioned earlier will begin very much sooner.

From that point onwards borrowed money may be brought into a business in a variety of ways, to detail which is beyond the scope of this book. All, however, have to offer increasing attractiveness in view of their decreasing grade of security, since each new increment usually ranks behind the previous ones. In this way some of the larger industrial concerns have in the past built up a fantastic structure of capital employed in the business, which a period of bad trade has brought tumbling about lenders' and shareholders' ears in a tragic welter of loss and reconstruction.

Repayment of Borrowed Money

It will be seen, therefore, that the owned money and where it has come from are to be found in the net worth of the company. The borrowed money, and where it has come from, will be found in the liabilities.

Now the date when repayment of the borrowed money has to be made may be anything between to-morrow and the day when the company is wound up—if ever. When tabulating the liabilities, therefore, it is convenient to arrange them according to their urgency, so as to bring into prominence the ones that will have to be met soonest. The more pressing are termed "current liabilities," and it has been the accepted practice to define them as "those liabilities which have to be met within twelve months." This definition is seldom adhered to in practice. An annual balance-sheet deals solely with the figures at the close of the financial year under review, and the current liabilities recorded are only those accrued and outstanding at that date, together with provisions to cover any anticipated expenditure not yet incurred but chargeable to that year. Where some special liability exists of a "contingent" nature (such as the guaranteed payment of a dividend in a subsidiary company, or arrears of cumulative preference share dividends) the auditors usually include a note to that effect on the balance-sheet. The twelve-month definition would thus appear to refer only to the current financial year, and some other basis of comparison must be found for financial control, in which the closing date of the financial year is only of momentary importance.

The reason why the managing director requires to know his current liabilities is in order that he may be sure that he has an adequate supply of cash available to meet them. In the ordinary course of affairs the cash returning from his debtors should be sufficient to meet his obligations to his creditors, and his normal requirements for wages and charges. But in addition he will, as we have seen, from time to time have to make out-payments in cash, for taxation, dividends, debenture interest, etc. To record the anticipated expenditure for twelve months ahead in one category would defeat its own object, as the sum would be so large it would bear no relation to the immediate position. In practice, therefore, for financial control purposes, it has been found

convenient to split the current liabilities into three categories, as follows—

1. Accrued, and maturing within three months.
2. Maturing within four to six months.
3. Maturing within seven to twelve months.

The maturing liabilities, or provisions, recorded would be for *out-payments and capital expenditure only*, and would not include creditor payments (except in special circumstances) or any of the normal payments arising from the carrying on of the business.

Expenses Paid from Circulating Capital

The reason for differentiating between the classes of payment in this manner is that the circulating capital returning from the debtors should be adequate to cover all trading expenses. It is the out-payments of which the managing director requires notice, as he may have to find additional cash to meet these. With the current liabilities split into these three categories he will always have long notice of the coming out-payments, and will observe them moving up until they reach the "accrued" class, and have to be paid off.

If the current liabilities are set out in this manner the managing director can see—

1. All liabilities already incurred, including the amount of creditor-money in his circulating capital.
2. All liabilities for out-payments or capital expenditure which he will have to make from his circulating capital within the next three, six, and twelve months; this should give him ample warning, if his liquid resources are meagre, that arrangements of some kind will have to be made to provide additional cash.

The remaining liabilities will be those of a less urgent nature, either due for repayment at a fixed date some years ahead, or not due for repayment until the winding-up of the concern, unless the board decide to avail themselves of an option to do so. It is customary to divide these items into two categories, medium-term and long-term.

Here again there is no general agreement as to precise time limits. Broadly speaking, medium-term liabilities are considered

to be those maturing between one and five years ahead, and long-term liabilities those maturing at any subsequent date. Occasionally the medium-term liabilities can be found divided into short (twelve to eighteen months) and long (eighteen months to five years).

For financial control work, however, these definitions are not very satisfactory. Awareness is the essence of control, and the medium-term liability which matures in thirteen months' time is of much greater importance to the managing director than the one which matures in little less than five years. In practice it appears to be most convenient to consider medium-term liabilities as maturing from one to three years ahead. All liabilities maturing later than three years, if ever, would be classed as long-term.

Liability Categories

The three liability categories used here will therefore be—

Current liabilities, indicating those already accrued or maturing within three, six, or twelve months.

Medium-term liabilities, indicating those maturing from one to three years ahead.

Long-term liabilities, indicating those maturing more than three years ahead, if ever.

It is convenient when setting out the balance-sheet to arrange the liabilities in this order of decreasing urgency, and the normal structure of the Liabilities and Net Worth side of the balance-sheet would then be as shown on page 27.

Reserves

Misunderstandings are apt to arise as to the true significance of the entries under the heading of "Reserves," which are to be found in most balance-sheets amongst the liabilities. Owing, presumably, to the fact that household "reserves" of coal or food are something that the owner can go and look at, and the thrifty keep a "reserve" of cash at the bank as an umbrella for use when the rainy day arrives, there is sometimes an erroneous impression that anything labelled "reserve" in a balance-sheet refers to "ready" money available for use in an emergency. The writer once had a client who was with difficulty restrained from entering an action against his accountant-auditor, who was unable to

	£	£	£
LIABILITIES			
BORROWED CAPITAL			
Current Liabilities			
Accrued	x		
Maturing within 3 months	x	x	
Maturing 4 to 6 months		x	
Maturing 7 to 12 months		x	
Total Current Liabilities		x	
Medium-term Liabilities		x	
Long-term Liabilities		x	
TOTAL ALL LIABILITIES			x
NET WORTH			
OWNED CAPITAL			
Issued Share Capital		x	
General Reserves		x	
P. & L. Credit Balance		x	
NOMINAL NET WORTH			x
TOTAL, LIABILITIES & NET WORTH			x
Where Fictitious Assets exist—			
Nominal Net Worth			x
Deduct:			
Fictitious Assets			x
ACTUAL NET WORTH			x

FIG. 3

produce in cash the money shown as a depreciation reserve in the balance-sheet.

Such simplicity would not be found amongst industrialists, it is true, but all writers agree that confusion frequently occurs in connection with reserves, and it may, therefore, be as well to deal with the facts here as simply as possible.

Clause 93 of Table A of the Companies Act, 1929, sets out the guiding principles regarding reserves as follows—

The directors may, before recommending any dividend, set aside out of the profits of the company such sums as they think proper as a reserve or reserves which shall, at the discretion of the directors, be applicable for meeting contingencies, or for equalizing dividends, or for any other purpose to which the profits of the company may be properly applied, and pending such application may, at the like discretion, either be employed in the business of the company

or invested in such investments (other than the shares of the company) as the directors may from time to time think fit.

This statement clearly deals with reserves created by the setting aside of sums to be used for the benefit of the shareholders at some future date, and also mentions "contingencies," i.e. cases where sums are set aside to meet payments to outside claimants for which the company is or may be liable. The difficulty in the true assessment of the value of reserves to a company lies precisely in this difference, since it is often far from clear whether the reserve is made for the benefit of the shareholders, or to provide for the outside claimants.

Hargreaves Parkinson deals with this distinction in his book, *Scientific Investment*, as follows—

> There are many kinds of company reserves, but all fall into one of two groups. Any investor who will bear in mind the difference between owing money to himself and owing it to an outside person will readily distinguish between the two. . . . The distinction is of fundamental importance. Reserves for the benefit of shareholders (which for convenience may be termed "general reserves" or "free reserves") represent so much money ploughed back into the business, added to effective working capital, and capable of earning profits, pound for pound, in exactly the same way as money subscribed by shareholders to a so-called "capital issue." Amounts reserved for anticipated liabilities (which may be grouped under the general heading of "specific reserves" or "tied reserves") will ostensibly, in due course, pass out of the company's control and thereafter contribute nothing to future earnings.

In 1944 the Institute of Chartered Accountants issued a small booklet entitled *Recommendations on Accounting Principles*. Under section VI, "Reserves and Provisions," para. 40, it points out—

> The terms "reserves" and "provisions" are commonly regarded as interchangeable. Accounts would be more clearly understood if the term "reserve" were applied only to reserves which are free, and the term "provisions" were confined to amounts set aside for specific requirements.
>
> It is therefore recommended that—
>
> 1. The following distinction should be made between reserves which are free, and those in the nature of provisions for specific requirements; the latter should preferably be described as provisions.
>
> (*a*) The term "reserve" should be used to denote amounts set aside out of profits and other surpluses which are not designed to meet any liability, contingency, commitment, or diminution in value of assets known to exist at the date of the balance-sheet.
>
> (*b*) The term "provision" should be used to denote amounts set aside out of profits or other surpluses to meet—

(i) specific requirements the amounts whereof can be estimated closely; and

(ii) specific commitments, known contingencies and diminutions in value of assets existing as at the date of the balance-sheet where the amounts involved cannot be determined with substantial accuracy.

These *Recommendations* were subsequently withdrawn for certain technical reasons which do not affect the field of this handbook, so they will continue to be used here, since they have proved a great convenience in dealing with problems relating to reserves.

The following notes deal a little more fully with certain matters relating to company reserves and provisions—

1. General Reserves

As we have seen, the general reserves consist of surplus profits which have not been distributed to the shareholders in dividends, but have been retained in the business. The profit and loss credit balance which is carried forward from year to year is a general reserve, actually, but it is the usual practice to transfer sums from this account to another termed the "General Reserve" in order that the former may be kept to a reasonable figure and not cause misunderstandings.

General reserves are often to be found in a balance-sheet under other names. For instance, capital redemption reserves have, by law, to be created when redeemable capital has been issued; dividend equalization reserves are often built up, to be drawn upon when required for dividend purposes. Capital reserve (premium on shares) is another instance. All these are general reserves by nature, since there is no liability involved for external payments.

It is by no means easy in some balance-sheets to recognize whether a reserve is of a general nature or not, and more definite information may be required before an item can be accurately placed. Where there is a doubt, however, it is better to treat such reserves as not being an item of the net worth.

The size of the general reserve of a company, whether stated or secret, will depend upon the financial policy adopted by the board. As long as the shareholders' equity is protected from danger and its normal steady growth assured, any surplus cash may well be distributed as the reward of those who had the

foresight to invest their money in the nascent undertaking. As far as the internal financial management is concerned, it is the duty of the board to ensure that the money required to provide safety and growth—but not overgrowth—is retained in the business and not paid out for good and all, even if that retention envisages contingencies that may arise some years ahead. In the next chapter we shall return to this subject, in dealing with where the reserve money is to be found invested.

2. Secret Reserves

Secret reserves have been the subject of much discussion and argument both for and against. As their name implies, there is no mention of them in the balance-sheet, but they are quite simply created by over-assessment of provisions or excessive depreciation of asset values; for instance, an excessive provision for bad debts or the writing-off of some of the minor assets, such as office equipment, or the undervaluation of stock and work-in-progress. It should be remembered that the directors of a company are at liberty to adjust their figures, so far as the shareholders are concerned, in any manner that they consider enhances the financial security of the business, within reasonable limits. The balance-sheet, as submitted to the shareholders, does not necessarily, for instance, show the same figures for depreciation as those arrived at in the Wear and Tear computation agreed with the Inland Revenue authorities. The latter have certain recognized standards of allowance for depreciation, and since these are lower than prudent management would adopt, this forces the firm to show a profit larger than it would have done had it been permitted to make adequate allowances for depreciation and obsolescence of plant and equipment. To counteract this tendency many boards deliberately adopt a policy of understatement of total capital employed, and of profits earned. This sometimes has its disadvantages, as it tends to show that the company is doing worse than is actually the case.

Secret reserves certainly operate, in practice, to obscure real earning power. By flattening out fluctuations in profit, they may tend to minimize ups and downs in share prices. Over a long period, however, they keep the latter below their true level, since they suggest the assets of a company to be less than they really are. Thus large secret reserves tend, paradoxically, to compel a company to offer new capital at a less favourable figure (from its own point of view) than would otherwise be the case. Finally, if a company encounters

a long drawn-out depression, or contracts a fatal "disease," it may conceal the fact for many years by drawing on inner reserves. When these are exhausted, however, the last state of such a company is decidedly worse than the first.*

3. Provisions

These are "tied" reserves which have at some time or another to be paid out of the business for specific purposes. For instance, a provision for taxation merely means that the company has earmarked a sum from the profits with the intention of paying taxation out of it. Provisions for accident liability and pensions explain themselves. Provision for advertising implies, as its name shows, that a sum has been set aside to be used for an extensive advertising campaign not yet fully developed. Provisions of this nature are definite liabilities, short, medium, or long-term as the case may be, and whilst, for the time being, the money allocated is included in the total capital employed in the business, it will have to be taken out as soon as the liability has to be met, and therefore is in a sense no longer the property of the shareholders. The cashier is merely borrowing it for the time being and using it until it is needed.

Balance-sheet entries will frequently be found on the liabilities side, creating provisions which are intended to offset the stated value of certain items on the assets side of the balance-sheet. It is the practice of some companies to keep the value of their land, buildings, plant, etc.—the tangible assets—at some fixed amount as valued at a certain date, instead of reducing that value by annual depreciation. To counteract this a provision for depreciation is created which mounts year by year; this has the same effect as reducing the asset value.

A provision for "bad debts" is another example of this type. Where deduction provisions of this nature are observed in a balance-sheet, they should always be subtracted when ascertaining the true value of the assets concerned.

Summary

Definitions of the various Liability categories, with examples, would be as follows—

Current Liabilities, indicating accrued liabilities and maturing liabilities payable within twelve months.

Accrued Liabilities, indicating liabilities already incurred.

* Hargreaves Parkinson, *Scientific Investment* (Pitman).

EXAMPLES:

Sundry creditors.
Creditors for hire purchase.
Interest on debentures, loans or mortgages.
Debentures, loans or mortgages matured but unpaid.
Dividends declared but not paid.
Taxation on previous trading year due but not yet paid.

Maturing Liabilities, indicating out-payments not yet due, but maturing within three, six, or twelve months.

EXAMPLES:

Such reduction of the overdraft as may be required by the bank within the period.
Capital expenditure authorized but not expended.
Dividends for current year.
Staff bonus for current year.
Debenture, loan or mortgage interest, or repayments maturing within the period.
Provisions which have to be met within the period.

Medium-term Liabilities, indicating out-payments which have to be met in the course of thirteen to thirty-six months from date.

EXAMPLES:

Repayments of debentures, loans, notes or other borrowed capital.
Maturing mortgages.
Provisions which have to be met within the period.

Long-term Liabilities, indicating out-payments which have to be met from thirty-seven months onwards from date.

EXAMPLES:

That portion of the bank overdraft not included as a Current Liability.
Those portions of the debentures, loans, notes and other borrowed capital not included as Medium-term Liabilities.
Provisions not included as Medium-term Liabilities.

CHAPTER IV

THE MONEY IN THE BUSINESS

(c) Where is it now?

In the extracting or processing industries, a good deal of money often has to be spent by a new concern before operations can begin. Land and buildings must be acquired, machinery installed, and all the necessary equipment obtained before it is possible to start making the goods intended to form the selling range. It is the fixed capital, therefore, which will have to be expended first—in part, at any rate—to form that "centre bearing" round which the circulating capital will eventually revolve. As the buildings and equipment become available for use, material is obtained and the personnel, staff and operatives, are gradually engaged and trained. The organization slowly begins to function, and so, in due course, the goods are produced and dispatched to the customers, and the trading cycle starts.

The money subscribed by the shareholders will be used in all the directions in which expense has to be incurred. What is spent on land, buildings, plant and equipment becomes fixed capital, and what is spent on materials, wages and all the general management expenses becomes the circulating capital. If the company has been launched by individuals of foresight and judgment, this division of the capital as it goes into the business proceeds on a carefully prepared financial plan, so that proper proportions can be maintained throughout the early years whilst the company is developing.

Since the total capital employed in the business is to be found in the figure at the foot of the assets column in the balance-sheet, in the early stages the item of "cash" may be a large one, diminishing by degrees as it is gradually expended on other forms of asset. When a range of machines is bought for £10,000 and installed, the cash will drop by £10,000 and the fixed assets rise by that amount—but the figure at the foot of the assets column will remain unaltered. The balance-sheet records how much has been spent on each item, so that the incoming money on the liabilities and net worth side can balance against the outgoing money on the assets side.

Ultimately the company will settle down with its full outfit of equipment, producing its normal trading turnover, and the balance-sheet will then provide the record of how the money that is in the business has been, or is being, invested.

Liquidity

Trading is normally carried on by exchanging cash for goods or services, so that the more cash available for this exchanging process, the more profitable the trading ought to be. The money spent on the assets of a business is sunk in items the recorded value of which bears varying degrees of relation to actual cash—a relation known as "liquidity." It is the practice to collect these items into categories according to their varying degree of "liquidity," in order to set out clearly the amount of cash or near-cash available for trading purposes—in other words, to differentiate between the circulating and the fixed capital.

Forming the circulating capital there is first the cash in hand and at the bank, and any investments that can be immediately realized if required. If we turn back to Fig. 2, and follow the circulating flow backwards, we shall find that next in liquidity come the trade debtors, who should pay their accounts in cash after the lapse of the normal commercial trading terms in that class of business. Since all these items are cash or near-cash, they are known as "liquid" assets.

Then we meet the finished goods stock, the work-in-progress and the raw materials stock, which represent cash at an increasingly distant date. These are known as "working" assets.*

The total of the liquid and working assets is known as the "current" assets, and these form the circulating capital with which the trading is carried on.

The Fixed Assets

The fixed capital includes all the money which is not used in the business as circulating capital. First and foremost come those sums which have been spent on the land, buildings, plant, machinery, tools, office fixtures and fittings, and other requirements of a tangible nature by means of which the production of the goods marketed by the concern is carried on. It is in financial

* This is the term adopted for such assets by Stephen Gilman, in *Analysing Financial Statements*.

circles the old-established practice to term these fixed assets, but it might be more satisfactory if they were called "tangible" assets, since the whole of the items making up the fixed capital are fixed assets of one kind or another. There is, for internal financial management purposes, a need to differentiate between one class of fixed assets and another, since, as in the case of the circulating capital, the relative amounts invested in the different classes of fixed capital have considerable bearing on the company's effective use of the total capital employed.

The tangible assets proportion of the total capital employed varies widely in the different types of business, as will be readily understood. A rolling mill, for instance, requires an extensive outfit of heavy machinery and plant, whereas a company assembling radio sets would need only a light building and a very limited amount of plant and machinery. Such differences are inherent in the individual sections of industry, but even within those individual classes it is possible to find wide variations in the proportion of the total capital employed which has been sunk in the tangible assets.

Classes of Fixed Assets

Since in financial control it is necessary to have certain checks on the profitable employment of the fixed "property," i.e. the land, buildings, plant and so forth, it is convenient to keep these items of the tangible assets together, usually under the heading of "Fixed Property Investment." Some companies possess subsidiary undertakings, trade investments, or earmarked cash funds, which definitely are not current, intangible, or fictitious assets, and therefore must be classified amongst the tangible assets. Where such exist, they are usually known as "Other" tangible assets. In the great majority of concerns, especially in the medium and small classes, the only tangible assets are those concerned with the production, so that the distinction does not arise.

The next usual subdivision contains items upon which cash has been spent, and which have a genuine asset value only as long as the business is carried on, since they have in themselves no intrinsic value. The chief examples are goodwill and patent rights. This group is known as "Intangible Assets."

Finally there is a group the items of which are legally recognized as assets in a balance-sheet, but which have, in fact, no value at

all. These consist of preliminary expenses, past losses, expenses carried forward to be written off in future years, and similar debit balances which have to be included on the assets side to balance the books. These are known as "Fictitious Assets."

Occasionally the term "frozen assets" is met with, usually applied to "Other Tangible Assets." The implication is that money invested in such items is difficult or impossible to recover. The three categories indicated above, however, seem to meet all normal control requirements.

Using these categories the normal structure of the Assets side of the balance-sheet would be as follows—

ASSETS

	£	£	£
CIRCULATING CAPITAL			
CURRENT ASSETS			
Liquid		x	
Working		x	
TOTAL CURRENT ASSETS			x
FIXED CAPITAL			
FIXED ASSETS			
Tangible			
Fixed Property Inv.	x		
Other	x		
		x	
Intangible		x	
Fictitious		x	
TOTAL FIXED ASSETS			x
TOTAL OF ALL ASSETS			x

FIG. 4

Each of these categories can now be more carefully considered—

LIQUID ASSETS

If investments are to be held as liquid assets, they must be of such a nature and in such a sum as can be quickly sold without disturbing the market. This is by no means a feature of all types of investment and where holdings have to be sold in small lots over an extended period in order not to upset the market, they cannot be said to be truly liquid. Under such circumstances they would have to be treated as working assets.

In actual fact it is not often that a sudden and unexpected demand arises in a business for a large sum of cash. Where

invested cash reserves are likely to be wanted before long to finance increasing trade activity, that expectation manifests itself months ahead. The financial management control should be well aware of it, and take steps accordingly.

Where capital has been invested in Government or trade securities, in order to provide a resting-place where unwanted money can lie, bringing in interest, until it is required for use again, it, of course, ceases for the time being to form part of the active circulating capital. Nevertheless, it remains a liquid asset, temporarily out of use but on call, and must, therefore, be included in the circulating capital figure in calculating the overall profit made annually by the circulating capital. If the true figure of profit made on the actual circulating capital is required, such invested funds must be deducted from the total current assets before making the calculation.

Whilst it is usual to assume that trade debtors pay on the normal trading terms for the class of business, in practice this is by no means always true. In the network of trading throughout the country every firm owes money to its creditors and is itself owed money by its debtors; therefore, prompt payment of A by B may depend upon prompt payment of B by C, who, in turn, may be waiting for prompt payment by A. Since every firm differs in its financial structure, its management efficiency and its trading methods, the merry-go-round often creaks somewhat, and one of the necessary factors in sound financial management is a continuous survey of accounts outstanding. Bills receivable, on the other hand, can presumably be discounted, and the cash therefore returns into circulation at once.

Working Assets

Finished goods stock, provided it is composed only of current sales lines, is sometimes counted as a liquid asset; the idea is that it should be on the verge of going out as a sale, and therefore represents a higher degree of liquidity than the work-in-progress which still requires completion before it can be sold. This assumption, however, is by no means a safe one, since there is a wide difference between stock which has successfully been sold and stock which is available for sale. It is better, therefore, to treat the finished goods stock as a working asset, turning into cash in due course, but not at the moment as good as cash.

This finished goods stock value should always be subject to careful scrutiny, as it will frequently be found that obsolete remainders of old lines are still retained on the shelves, often at the valuation placed on them whilst they were still current. These should be written down or off, even if still held for sale on the off-chance that some conservative customer will require a repeat order to match the older model that he still has in use.

Where an excessive finished goods stock is found, it may be advisable to regard its contingent liquid value with some suspicion, especially where the company is beginning to be, or is already, in difficulties for cash. It may not be possible to dispose of the stock, even at the factory cost figure at which it should stand in the balance-sheet, and what appears to be a useful reservoir of cash may turn out to be a deception when the goods have to be turned into money at any price that can be obtained.

Certain companies keep large supplies of spare parts to service past sales. These, though only individual parts, are "finished goods stock" from the sales point of view. Where such a case obtains, the value of such spare-part stocks should always be shown as a separate figure, apart from that of current stocks of completed goods in the normal sales range. Otherwise the position may be misunderstood, as the turnover of spare-part stocks is usually a very slow one—though it may, indeed, be a valuable section of the company's sales.

Stock Problems

Raw material stocks are apt to accumulate a proportion of obsolete items bought in previous years for certain purposes but not used at the time, owing, perhaps, to the decision to utilize a more suitable material, or to experiments having shown that the original material caused manufacturing difficulties. Changes in design render obsolete castings and stampings, which, however, cannot be scrapped owing to spare-part requirements. Once a machine has been sold with a certain part included, even if only half a dozen have been disposed of to customers before the design was changed, the seller must be prepared to meet the demand for spare parts, perhaps years later. If a spare part is called for and the customer is told that one is not available, goodwill will be harmed and the firm may lose a good customer in the future. This leads to the gradual accumulation of batches of material,

each having only a small intrinsic value, but totalling in some firms to a respectable proportion of the total value of the raw material stocks. There is also an unhappy tendency in many companies to cling to supplies of out-of-date material in the hope that "it will work in sometime." For this reason, when the annual stock-taking is held, the managing director will be well advised to inquire carefully into his raw material stock value, and ruthlessly to write off anything which is not in actual current use.

The work-in-progress value can usually be relied upon, as it represents the current production, except when drastic changes in the product have had to be made. When that happens, all parts or batches of semi-processed material belonging to the obsolete product should be gathered together, listed, and written off,* so that the true asset value of the work-in-progress can be protected.

In some companies it is the practice to value work-in-progress and finished goods stock at prime cost (i.e. cost of direct material and labour only), and not at factory cost. This practice seems to be an echo of the old-fashioned "conservative" practice adopted at annual stock-takings, of putting the stock in at the lowest possible value in order to reduce the annual profit shown and create a secret reserve. The principle, however, has nothing to recommend it, and causes, in fact, a definite error in accountancy, giving misleading results in the monthly accounts which are now so largely adopted in industry. If the stock is undervalued in this manner, when goods are sold out of stock, the month under review will be credited with a larger profit than has really been made during the trading period, whilst if goods are put into stock during the month, the profit recorded will be smaller than is actually the case. This fact was pointed out by the late Sir Gilbert Garnsey in connection with annual balance-sheets, and whilst the error, occurring once a year, merely transfers profit from one year to another, with monthly accounts it has a most serious effect upon the accuracy of the Statement of Account upon which the management of the business should be based. It is recognized to-day that finished stock and work-in-progress are most conveniently valued at factory cost and the figure recorded in the balance-sheet should be on that basis.

* As an "adjustment" to the profit for the month in which the writing off takes place.

Tangible Assets

The tangible assets of land, buildings, plant, loose tools, fixtures and fittings, will be held at purchase price less such normal depreciation as has been written off. Here we begin to adventure into the difficult field of fixed asset valuation, where the difference between the money sunk in the item and its realizable cash value may be a very wide one. The accurate valuation of fixed assets in terms of cash is one of the most onerous the accountant has to face, since the more distant the relation of an asset to actual cash, the less accurate is the valuation likely to be. The circulating assets are cash or in process of becoming cash, so that their valuation in terms of cash is not too difficult. But when the fixed assets have to be valued, the uncertainties are so manifold that it is only possible to produce a balance-sheet at all by accepting certain recognized standards of practice. For instance, a machine is purchased in 1920 for £1000; it is used for a certain special process for ten years, its value being depreciated for wear and tear each year, until in 1930 it stands in the plant register at £350. The special process is then superseded by a better one and the machine stands idle, but kept in good condition, until 1940, when a process somewhat similar to the first one is required once more. With a small expenditure the machine is overhauled and altered, and can then turn out the work as well as, and at a speed equivalent to, that of a modern machine of similar type costing, in 1940, £1450. The old machine now stands in the plant register at £175; what is its real asset value in cash to the company?

When the "value" of an asset is in question, it can be assessed, quite truthfully, from four points of view—

(*a*) Book value.
(*b*) Replacement value.
(*c*) Selling value.
(*d*) Break-up value.

In the case of the machine just taken as an example, the book value in 1940 was £175, the replacement value £1450. The "selling value" implies the value if it could be sold to a concern anxious to obtain a machine of this type—which might be, say, £450. The "break-up" value—i.e. what the machine would fetch at a forced sale, where none of the buyers present wanted it—might be £20.

Balance-sheet Values

It seems clear, therefore, that in normal circumstances the balance-sheet values shown must be accepted as the money-investment in the assets, less recognized depreciation, and where a true statement of the commercial value at date is needed, a special valuation must be made by an expert.

The trouble lies in the fact that the balance-sheet is merely the summary of a set of books of account, and records the assets, liabilities, and net worth of a company from its formation. It does not profess to show the *value* of the company's assets from any other aspect than their original cost plus the cost of subsequent additions less such amounts as have been written off to allow for the depreciation through use, wear and tear, and obsolescence. It is difficult to see how any other basis of valuation could be taken, without the most alarming variations in the company's net worth every year, and without opening the door to easy fraud.

The circulating capital assets value should be real in the sense that it consists either of money, of promises to pay money, or money's worth. But land, buildings, plant and machinery, standing in the balance-sheet at £100,000 means no more than the fact that the company has invested a certain sum in these means of production, and, after writing off depreciation year by year the amount of money originally paid, plus additions, now stands at the figure of £100,000. If the company were to go into liquidation and the outfit be sold, it is in the highest degree unlikely that the shareholders would receive the sum of £100,000 for it. The freehold value of the land may have fallen, the buildings may be of a type now out-of-date for that class of manufacture, the plant and machinery, although in good working condition, may have been superseded years before by better designs, working more efficiently and requiring less labour to do so. On a forced sale perhaps one-third of the balance-sheet figure might be realized, or even less.

On the other hand, there is probably no question of a forced sale involved. The company may be doing excellent business, and, through good management, be able to compete on equal terms with concerns having more modern premises and more modern machinery. From the writer's experience it is true to say that much can be done by the adroit adaptation of old

buildings, and by supplementing the older type of machinery by a variety of modern appliances. So long, therefore, as the company remains a going concern, financially sound and making profits, the book values of the tangible assets need not be challenged, provided they have been adequately written down. If they are over-stated, the result from the financial management viewpoint is merely that the circulating capital has to carry an unnecessarily heavy burden, and the net worth is shown at a figure higher than it should be.

As a matter of fact, the company may even work at an advantage if the more modern buildings and plant of its rivals have, by reason of higher initial expenses, laid a burden of cost on the product which the older concern does not have to bear.

Loose Tools

Of the different types of tangible asset, the one in which the real cash value is usually furthest from its balance-sheet value is the item "Loose Tools." This term is applied to jigs, tools, fixtures and other technical equipment used in manufacturing the goods sold, and whilst a standard milling machine by a good maker will always possess a certain value, a jig used in machining a certain part on that milling machine, though it may originally have cost a considerable sum, is likely to be worth no more than scrap value should it come to be sold. Most companies write off each year as much as they can of their tool expenditure, and only carry a nominal sum under that heading in the balance-sheet—if it is carried at all. When assessing a balance-sheet for true asset values, it is customary to write off the item of loose tools altogether.

Investments

The precise location of the "investments" amongst the assets depends not so much upon what they are, as the purpose for which they are held. As we have seen, where money that cannot for the moment be usefully employed is invested in easily realizable securities, it remains amongst the liquid assets, being merely cash in a form that is bringing in a small interest during the period that it cannot be used in the business. But trade investments, or investments in subsidiary companies, are another matter, and their place amongst the assets is governed by what

the company intends to do with them, and not upon what might possibly be done with them if the company were wound up.

Some companies use a portion of their capital to create a subsidiary company, or more than one, to operate in a field closely allied to that of the investing concern. Or it may be the same effect is produced by the purchase of the whole or the controlling shareholding in an existing company of that nature. The advantages gained by this practice are of numerous kinds—possibly the preferential supply of material, either raw or partly processed, by the subsidiary to the parent company, or the provision of transport or other services. Such investments may be quite satisfactory, but capital once invested in this manner is "frozen" completely so far as the trading of the investing company is concerned, and cannot be recovered except by some drastic procedure such as the sale of the subsidiary company to other interests. Here again the intrinsic value of the investment is very difficult to assess, and can only be recorded as the amount of the original cash capital invested by the parent company, plus or minus such further investments or disposals as have been subsequently made.

"Trade" investments—i.e. investments in commercial trading concerns—can be of two kinds, either quoted on the Stock Exchange and therefore realizable at need in the ordinary manner, or else unquoted, and therefore difficult, if not impossible, to realize. Investments such as these are seldom made except with the intention of permanent holdings, and they should therefore rank amongst the fixed assets, thus conforming to the fixed asset definition of one "not held for the purpose of resale." Here again the policy may be quite sound, since a shareholding gives close contact with the firm in question, and mutual benefits may arise. But if a company buys the quoted shares of another company merely as a profitable investment, with no intention of collaborative action, then the sum involved is best located amongst the working assets. It may not be readily sold, in spite of the fact that it is quoted, so that it would be unwise to consider it as a liquid asset.

Intangible Assets

This category is necessary to cover a few rather special items, the existence of which cannot be denied, but the intrinsic value

of which can be, and often is, the subject of much argument. The sum recorded under the heading of goodwill in a balance-sheet is usually an amount based upon the expectation of profits over a certain period of years, paid to the seller of a business by a purchaser forming a new company.

When a company has been trading for some time, and its products are well known and sought after by customers, it has certainly created a goodwill which is as good a profit-earning asset as the plant and machinery with which the products are made. If it wishes to sell the business, it has a right to be paid for that goodwill on a proper assessment. The purchaser has an equal right to maintain that the goodwill purchased, though intangible, is real and earns as high a percentage of profits as the rest of his assets, since through it he maintains the markets for his products.

As between selling and buying interests, this may be quite equitable. But the company where goodwill has been capitalized is bound to be at a disadvantage when compared with a similar concern having the same liabilities and net worth, but with the goodwill figure replaced by an equivalent sum invested in current or tangible assets.*

Fictitious Assets

Last of all, some of the money in the business will perhaps be found in items which, although standing on the assets side of the balance-sheet, cannot, by the remotest stretch of the imagination, be considered as assets. Such items are losses from past years which have to be carried forward; the preliminary expenses in the formation of a company; excessive departmental expenses of one form or another, which, although actually spent, are considered as applicable to several years and therefore can be written off over those years. Such items are nothing more than book-entries recording past expenditure, which have to be placed on the assets side of the balance-sheet in order to achieve the balance.

Such are the subdivisions in which the total capital employed in the business is to be found. Not all are of the same importance. The vast majority of concerns carry no fictitious assets, and a considerable number put no valuation on their intangible assets.

* For further information on the subject of commercial goodwill the reader is referred to *Balance Sheet Values*, by P. D. Leake (Gee & Co.).

But all companies must have liquid, working and tangible assets, even if the latter merely consist of the furniture of the office in which the managing director carries on his business.

Investment of Reserves

The general reserves that form part of the net worth of the business are by no means always invested in that business itself. Whilst trading is expanding they will certainly be needed to increase the circulating capital, but once the business has reached a normally static level, the profits may begin to provide funds in excess of dividend requirements for which the company will have no immediate use. Such funds are therefore invested, usually in trustee securities of an easily negotiable kind. This has always been regarded as sound industrial finance, since at least a portion of the general reserves in the business should be available in cash if trading conditions bring about a shortage of ready money. If all the reserves are invested in the business, any trade fluctuations will affect the business as a whole and it is therefore likely that at a critical moment the reserves, although they may be standing at a considerable sum, cannot be got at in cash form. The balance-sheets of the larger companies will almost always be found to include a "portfolio" of investments representing part, at least, of the reserves that have been built up.

General reserves, when invested in the business, are an addition to the issued capital, and as such may well be represented by current or tangible assets. But provisions are borrowed money, and if they are represented by current or tangible assets (and not by cash or investments) a time will come when the liability has to be met and it may be difficult or even impossible to find a sufficient amount of cash to meet it. Provisions, therefore, when of any significant amount, should be in the form of labelled "Funds," balanced on the assets side by marketable investments, thereby ensuring that the cash will be available when required.

The word "Reserve" does not imply, as many seem to think, that an investment outside the business has been made and "earmarked." On the other hand, where the words "Reserve Fund" appear on the debit side of a balance-sheet, anyone interested, either as a partner or shareholder, or merely as a critic, has the right to expect that the amount is represented by investments outside the business.*

* *How to Read the Balance Sheet of a Commercial Concern*, by Pixley (Gee & Co.).

But the withdrawal of cash from circulation in order to invest it pending future use is by no means always easy, and the temptation to expand the trading regardless of maturing liabilities is strong. There is always the feeling that if temporary cash accommodation is needed, it will be found somewhere when the time comes. The result, only too often, is over-trading, increasing financial difficulties, and possibly, in the end, disaster.

As we have seen, once money has been sunk in the tangible assets, it disappears altogether from the day-to-day trading activity, and we are left, therefore, with the relatively simple fact that what the managing director chiefly needs to know, in order to control the movement of the finance of his business, is the proportion and movement of his current assets.

Balance-sheet Analysis

At this point it may be as well to point out the underlying difference between balance-sheet analysis and financial management control. The officials in banks or investment trusts concerned with the credit standing of a business will analyse the balance-sheets of the applying company for some years back, and take out a series of ratios showing the extent to which the total capital employed is sunk in fixed and circulating items, and will relate certain balance-sheet figures to the sales turnover results which will have to be supplied to them. From these calculations there emerges the fact that the company is in a sound or unsound financial state—perhaps the money is insufficiently liquid, or there is too much sunk in stock and work-in-progress, or the ratio of tangible assets to total assets is too high for the type of business. In accordance with what the credit analysis shows, the firm will be given or refused the additional accommodation which it requires, and the matter will probably end there.

When first installing a method of financial management control, the managing director will certainly need a balance-sheet analysis on much the same lines as above. This will establish the position at a given date and whatever that position may be, good, bad, or indifferent, for the time being he will have to make the best of it. To vary the financial conditions of a company is not as easy as to vary the working conditions in a factory, for the reason that financial conditions are all of slow growth, and are not usually susceptible to sudden change. If it is found that the factory is

falling steadily behind the sales requirements in the production of certain lines, under normal peace-time conditions it is not difficult to increase production to make good the deficiency. But if, on the financial side, it is found that the circulating capital is not adequate for the company's requirements, it is in the majority of cases by no means a simple matter to find immediately the additional money required.

It does not seem to be sufficiently realized that once the authorized capital of a company has been issued and taken up by shareholders, and borrowed capital has been added up to the limit of the security that the company can offer, there remains no method by which money can be brought into the business other than by the steady making of profits. After that a further issue of share capital of one kind or another is the only course that can be adopted, and this may be difficult owing to the prior claims of the loan capital already in the business.

Therefore, when a company which has been trading for some time decides to install a better method of financial control, and to watch over the movement of its internal finance, it is sometimes faced with a set of ratios and figures which may be encouraging, but which may also, on the other hand, be somewhat dispiriting. No sudden switch over from danger to safety is possible, since financial control is essentially based upon long-term policy, and the movement of all the factors is slow and deliberate. But once a control scheme has been set up, if it has been rightly constructed, it should be possible for the managing director to see clearly, month by month, whether he is moving towards ultimate success or probable failure. As long as he is moving, however slowly, in the right direction, he and his colleagues can feel, if not satisfied, at least free of anxiety. Moreover, he will have the satisfaction of being able to demonstrate his improving position to all those to whom his manifold responsibilities extend—his creditors, his bank manager, his shareholders, and his colleagues on the board. There is no great difficulty involved in the task, and such thought as may be required is amply repaid by the clearer vision obtained, and the sense of security achieved.

Summary

To conclude this section, it may be as well to set out the definitions of the various asset categories, with examples. These would be as follows.

CIRCULATING CAPITAL

Current Assets, indicating the items which form the circulating capital of the business, representing cash or its equivalent, to be found amongst the liquid or working assets.

Liquid Assets, indicating cash or what can be turned into cash within a month.

EXAMPLES:

Cash in hand and at the bank.

Tax Reserve Certificates.

Marketable securities, i.e. investments having a Stock Exchange quotation and a free market.

Debtors.

Bills receivable.

Any other assets immediately convertible into cash.

Working Assets, indicating items which will be turned into cash in due course, or could be if required.

EXAMPLES:

Finished goods stock.

Work-in-progress.

Raw materials stock.

Investments in unquoted companies which can be realized at need, not purchased for holding.

Marketable securities which have no free market, not purchased for holding.

Any other assets which are not liquid, tangible, intangible, or fictitious, according to their definitions.

FIXED CAPITAL

Fixed Assets, indicating items not held for the purpose of resale, and not forming part of the circulating capital of the business, to be found amongst the tangible, intangible, or fictitious assets.

Tangible Assets, indicating items employed in the means of production of the goods or services offered, whether directly, or indirectly through subsidiary companies. This class is subdivided into—

(1) Fixed Property Investment, indicating all items employed in production.

EXAMPLES:

Land, plant, buildings, machinery, loose tools, office furniture and fittings, consumable stores.

(2) Other Tangible Assets, indicating all other assets neither intangible nor fictitious, which do not form part of the current assets.

EXAMPLES:

Subsidiary companies, insurance policies, debenture, leasehold, or other redemption funds, investments purchased for holding.

Intangible Assets, indicating items invested in something which may have a value whilst the company is trading, or if it is sold as a going concern, but which would have no value if the company were wound up.

EXAMPLES:

Goodwill.
Patent rights.
Experimental development.

Fictitious Assets, indicating balances which have to be shown in the assets side of the balance-sheet, but which have no value at all to the company in actual fact.

EXAMPLES:

Trading loss for the period.
Preliminary expenses.
Discount on debentures or shares.
Commission for placing debentures or shares.
Commutation of royalties.
Advertising expenditure.
Any other expense incurred but carried forward for amortization in subsequent years.

Summarizing the foregoing, therefore, the conclusions are—

1. The money in the business will be found invested in five main classes of asset, viz—

(i) Liquid (iii) Tangible (v) Fictitious.
(ii) Working (iv) Intangible

2. The first two make up the circulating capital, and the last three the fixed capital, in the business.

3. The balance-sheet records the going-concern money-investment in the various assets, and does not profess to show their intrinsic value at any given date.

4. Investments should be located according to the purpose for which they are held, and may be liquid, working, or "other" tangible assets.

5. General reserves are usually invested in the business, representing additional capital employed.

6. Provisions, when of any significance, should be represented by Funds, balanced on the assets side by marketable investments to an equal amount.

SECTION II

THE SOURCES OF INFORMATION

CHAPTER V

THE BALANCE-SHEET

WHAT purpose does the balance-sheet serve in the internal financial management of a company? It sets out the rise or fall of the total capital employed in the business, and shows where that capital has come from, and where it is now. It records the main classes, fixed or circulating, owned or borrowed, and also how much—at a given date—is employed in those different classes. It is, in fact, the basic statement recording the money in the business, the foundation upon which the whole structure of internal financial control must be built. The natural inference is that it should be regularly drawn up each month, and arranged logically and clearly, each class of asset and liability having its own sub-total, so that it can be seen at a glance where the money has come from, and where it has got to.

In spite of this obvious need, it is only in recent years that any attempt has been made to lay out the balance-sheets of industrial undertakings in a manner more informative than that which has been recognized as standard practice for so long. As a matter of fact, the only part of the practice that is standard is the placing of the liabilities on the left-hand side and the assets on the right. Apart from this every possible variation in the arrangement of the items can be found, and the ordinary balance-sheet has been for many years criticized on all sides as a document that appears to be designed solely to make it as difficult as possible for even the expert reader to understand its implications. The practice of placing the liabilities on the left and the assets on the right might have some significance if the two were in any way compared—if, for instance, current liabilities were shown opposite current assets. This comparison, however, is very seldom provided, and the only purpose of the usual side-by-side balance-sheet would appear to be to enable the reader to observe that the totals below the liabilities and the assets are the same—usually to a penny. There

is an unconscious humour in the solemn balancing to a penny of assets and liabilities when the majority of the former have a value which is estimated rather than actual.

The fact is, of course, that the "balance-sheet" should properly be called the "balances sheet," since it is merely a statement of the credit and debit balances produced by double-entry book-keeping. The accountant, therefore, reproduced this *in toto* as a record of the position of those balances at a given date.

However adequate this may have been in the days of annual accounts, it no longer meets the need of the managing director of an industrial undertaking under modern trading conditions. To fulfil its purpose in a scheme of monthly accounts, upon which the management of the concern is to be based, the balance-sheet must be laid out with all the care and consideration that a primary document of its importance deserves.

The frontispiece to this handbook sets out the fundamental basis of a proper balance-sheet lay-out, and if we now proceed to place Fig. 3 and Fig. 4 side by side, spacing them so that the current liabilities and assets come level with each other, we shall find we have the following arrangement—

STATEMENT OF ASSETS, LIABILITIES, AND NET WORTH

LIABILITIES AND NET WORTH				ASSETS			
LIABILITIES—	£	£	£		£	£	£
CURRENT LIABS.:				CURRENT ASSETS:			
Accrued . .	x			Liquid . . .		x	
Maturing 3 mths.	x	x		Working . . .		x	
do. 4–6 do. . .		x					
do. 7–12 do. . .		x				—	
CURRENT LIABS., TOTAL . . .		x		CURRENT ASSETS, TOTAL			x
MED.-TERM LIABS. .		x		FIXED ASSETS:			
LONG-TERM LIABS. .		x		Tangible . .			
		—		Fixed Pr. Inv. .	x		
TOTAL, ALL LIABS.— .			x	Other . . .	x		
					—		x
NET WORTH—				Intangible . .		x	
Issued Capital . .		x		Fictitious. . .		x	
General Reserves .		x		FIXED ASSETS, TOTAL			x
P. and L. Balance .		x					
TOTAL NET WORTH .			x				—
TOTAL, LIABS. AND NET WORTH			x	TOTAL, ALL ASSETS .			x

FIG. 5

If the reader compares this with the frontispiece, he will observe that it reproduces exactly the first two columns, right and left, working outwards from the "Total Capital Employed" in the centre. The third columns on either side are not shown, since these are the detailed make-up of the asset and liability categories, and should only be included where full particulars are called for. Their place, as will be explained later, is in the accountant's detail sheet, kept in the background for reference as to how the main item totals are made up.

The reader, who will probably have studied the frontispiece before beginning to read the book, may be surprised that so simple and obvious a lay-out should not long ago have become the recognized practice. That it has not is probably less the fault of the accountant than the industrialist, whose interest in such matters has not been notable hitherto.

Attempts at Improvement

In the past, efforts have been made from time to time to make balance-sheets more illuminating. In 1930, for instance, a letter appeared in *The Times* over the name of Mr. E. H. Pollitt, C.A., on the desirability of setting out the position in company accounts in a more intelligible manner. "Few business men," wrote Mr. Pollitt, "can take up a present-day company balance-sheet and confidently assess the true position of affairs without referring to professional accountants. In the majority of cases," he added, "even the most expert of accountants has to take pencil and paper and perform a re-shuffling of items—grouping certain assets and deducting therefrom certain liabilities—before the information he requires can be obtained."*

Mr. Pollitt put forward a simple example of the old style of balance-sheet as shown in Fig. 6.

Using the same figures in rearranged form, he illustrated his contention that the balance-sheet could be made into a self-explanatory statement of the financial position as shown in Fig. 7.

Now before designing the lay-out of a financial statement it is first necessary to decide for what purpose it is being drawn up. Management being based on comparison, all primary documents

* "Amongst the Balance Sheets" (p. 3), by the Editor of "Finance and Commerce" in *The Accountant* (Gee & Co., 1940).

ACCOUNT No. 1

A.B. CO. LTD.

BALANCE-SHEET AS AT 31ST DECEMBER, 1930

LIABILITIES	£	ASSETS	£
Share Capital:		Buildings	3,000
Authorized £20,000		Plant	2,000
Issued	10,000	Goodwill	9,000
General Reserves	5,000	Investments	800
Debentures	1,500	Stocks	3,000
Creditors	4,700	Debtors	5,000
Taxation Reserve	1,200	Prelim. Exps. c/f.	1,000
Profit and Loss A/c.	3,000	Cash	1,600
	£25,400		£25,400

FIG. 6

ACCOUNT No. 2

A.B. CO. LTD.

	£	£	£
LIQUID ASSETS:			
Investments	800		
Stocks	3,000		
Debtors	5,000		
Cash	1,600		
		10,400	
Deduct:			
Current Liabilities	4,700		
Taxation	1,200		
		5,900	
Net Liquid Assets			4,500
FIXED AND INTANGIBLE ASSETS:			
Buildings	3,000		
Plant	2,000		
		5,000	
Goodwill	9,000		
Preliminary Expenses	1,000		
		10,000	
		15,000	
Less Debentures		1,500	13,500
Total Net Assets			£18,000
WHICH IS REPRESENTED BY:			
Issued Share Capital		10,000	
General Reserves		5,000	
Profit and Loss Account		3,000	£18,000

FIG. 7

(*Note:* The terminology is that of Mr. Pollitt.)

should be treated as plain records of current, cumulative or moving annual total figures arranged in their proper management categories. Comparisons and conclusions should only be drawn after these results have been transferred to comparison sheets, since the customary comparison with the previous month's results, or with the results for the corresponding month in the previous year, is practically valueless except in cases, such as the assets variation statement (see Chapter XII), where the specific object of the comparison is to watch the movement of the money from one month to another.

Management Control

Management control must be based on the long-term general movement of the business, whether upwards towards success or downwards towards failure, and the comparison sheet is therefore a vital part of the control mechanism. The actual statements presented each month to the board, usually known as the Board Returns, are merely milestones along the road. They present the results for the month—profit or loss, the details of income and expenditure, and the existing state of the assets and liabilities, all in a convenient form certified by the company's accountant. It is only when these monthly results have been entered up on a comparison sheet* that the true implication of the figures can be seen. They are, in fact, not an end in themselves, but only a means to an end—that end being the management of the company by comparing the new results with the old, and the actual position with that previously planned.

It is for this reason that these primary documents should be arranged in the logical sequence of items, each in its proper category, and any combination or mixed arrangement such as was suggested by Mr. Pollitt in Account No. 2 is better treated as a secondary document and only drawn up for some special purpose. The balance-sheet of the A. B. Co. should from the present-day standpoint be set out as in Fig. 8.

Here it will be noted that the two sides of the balance-sheet have been set one above the other, vertically, although it is not a

* H. E. Colesworthy, in *Practical Directorship* (Pitman, 1st Ed., 1924) in dealing with the periodical returns provided for the use of the board of directors, pointed out that "The form in which they are presented should enable comparisons to be made with as much facility as possible." In this he included monthly balance-sheets, profit and loss accounts, sales results, and all data normally set before a board. He gives several examples of monthly results entered on comparison sheets for this purpose.

A.B. CO. LTD.
STATEMENT OF ASSETS, LIABILITIES AND NET WORTH
AS AT 31st DECEMBER, 1930

	£	£	£	£
ASSETS				
CURRENT—				
LIQUID:				
Cash	1,600			
Investments	800			
Debtors	5,000			
		7,400		
WORKING:				
Stocks		3,000		
Total Current Assets			10,400	
FIXED—				
TANGIBLE:				
Buildings		3,000		
Plant		2,000		
Total Tangible Assets			5,000	
INTANGIBLE:				
Goodwill			9,000	
FICTITIOUS:				
Preliminary Expenses			1,000	
TOTAL OF ALL ASSETS				£25,400
LIABILITIES				
CURRENT—				
Creditors	4,700			
Taxation	1,200			
Total Current Liabilities		5,900		
LONG-TERM—				
Debentures		1,500		
TOTAL OF ALL LIABILITIES			£7,400	
NET WORTH				
Issued Share Capital		10,000		
General Reserves		5,000		
P. and L. Account		3,000		
NOMINAL NET WORTH			18,000	
TOTAL, LIABILITIES AND NET WORTH				£25,400
Nominal Net Worth	18,000			
Deduct: Fictitious Assets	1,000			
ACTUAL NET WORTH	£17,000			

FIG. 8

"narrative" statement like Mr. Pollitt's Account No. 2 (Fig. 7). The reason for this is that for practical use the horizontal balance-sheet is a clumsy affair. It usually requires a typewriter with a brief carriage, and it has to be folded in order to be enclosed with

the ordinary foolscap statements. For normal management purposes, it is better to use a vertical lay-out, in which the assets are set out above and the liabilities and net worth below. It is just as easy to observe the fact that the two balance, and it is also easier to include percentages and ratios if desired without increasing the cross columns to an awkward extent. It is true that the balancing effect is lost, but in any case this must occur in the comparison sheets, and the subsequent analysis of the figures upon which the financial control is based will be more thorough than the mere visual check gained from the side-by-side arrangement.

There are, naturally, occasions when a special form of financial statement is necessary to meet the requirements of the case. Where the equities of different classes of shareholders are under examination, or the relative cover of different categories of borrowed capital, it is convenient to build up a special statement in which the various assets and liabilities are added and deducted in the correct sequence. But if the original balance-sheet is set out on the lines of Fig. 8, such special statements can be built up from it with a minimum of trouble, and much straightforward information can be obtained without any special statements at all.

An Early Example

The vertical arrangement of which Fig. 8 is an example is, in fact, far from novel. In 1923 James H. Bliss published in America his monumental work on *Financial and Operating Ratios in Management*, the result of studies made whilst he was Assistant Professor of Accounting at the North Western University School of Commerce, Illinois. Fig. 1 in his book shows a vertical balance-sheet which is very similar to Fig. 8, and the writer can confirm from some twenty years of work in the industrial management field that this type of statement is the most convenient way of setting out the balance-sheet figures. When entering monthly results on comparison sheets, items and total figures are kept in one column; percentages are entered on a separate comparison sheet.

It is not suggested that the summarized form of balance-sheet set out in Fig. 5 is necessarily suitable for the formal balance-sheet circulated annually to shareholders. This might well contain more explanatory detail. The custom of setting out the amount of

depreciation deducted in the year from the various assets is a sound one, and a number of items may require notes or sub-totals. There is still no reason, however, why the horizontal form of balance-sheet should be perpetuated, even in the formal documents sent to shareholders, since the vertical lay-out can be just as informative where complicated balance-sheets are involved.

For normal monthly financial management control by the managing director, the balance-sheet as submitted to him should be simplified to the utmost. Accountants seldom seem to appreciate that their habit of issuing primary documents in full to the board is neither necessary nor advisable. It is, in fact, very largely responsible for the lack of interest shown by the board in so many cases, for those who do not possess the trained mind of the accountant are apt to be repelled by the mass of figures set before them without comment or explanation. How much—or how little—in the way of figures is necessary for the work of a board of directors has often been discussed. Whilst it is admitted, without question, that a director of a company should have the fullest access to the accounts of the business, to place before him a considerable range of documents relating to the monthly results, even if accompanied by comparative figures of the previous month, or the same month in the previous year, or the final figures at the end of the year before, usually defeats its own object. If the director possesses an able secretary or assistant who can enter the results on comparison sheets, analyse them, and make an effective summary—well and good. But few directors have the time or the inclination to do such work themselves and in consequence the "Board Returns" are only too often glanced at, a few items noted, and then, after the meeting, forgotten. This is where management accounting comes into its own, in the re-arrangement, adaptation, analysis, diagnosis and explanation of the figures, and the presentation of the findings to the Managing Director and the Board, so that they can see clearly how the money in the business is moving, and how the agreed policies are working out.

Interim and Final Balance-sheets

There is a further recommendation for this policy, in that, during the year, reserves and provisions have to be made, which may disappear in the final audited balance-sheet for the financial

year. There is a distinct difference which should not be overlooked in the purposes of monthly interim and annual final balance-sheets. The former show the movement of the total capital employed, and the reserves and provisions which govern the assessment of the asset and liability values. The latter present the carefully-prepared statement of the company's financial position at the end of the year's trading, after all necessary adjustments due to policy and prudence have been made. So that if the financial year of a company ends in December, the interim balance-sheet as at 31st December may differ to a considerable extent from the final audited balance-sheet for the year ending 31st December, as submitted to the shareholders.

This essential difference does not appear so far to have received much consideration, probably due to the fact that not many concerns go to the trouble of preparing monthly balance-sheets. But it provides a sound foundation for the claim that the lay-out of balance-sheet data for financial control purposes requires a different approach from that for annual record purposes, and therefore to endeavour to force the latter to do duty for the former is a mistake. It is far better to treat the lay-out for monthly control purposes as a separate problem, and to leave the recognized accountancy technique for dealing with annual final results unaltered. The problems that have to be solved are quite different. During the year valuations remain constant, and it is the movement which matters; at the end of the year valuations must be reconsidered and probably revised, to conform to the standards of sound finance, and the question of movement does not arise.

Balance-sheet Figures for Monthly Control

For month-to-month financial control purposes the best practice would appear to be to submit to the board only the total figures of each item in the balance-sheet. This reduces it to its maximum simplicity. Each director would have his own comparison sheet, these being entered up each month by the company's accountant and sent by post to the director concerned. He can then, at his leisure, study the movement of the figures, and compare them with the results at the end of the previous year, or with those of the previous months. He would bring his comparison sheet to the board meeting, with his other papers, and after the

meeting hand it back to the accountant to be made up for the following month.

Under such circumstances, the director's comparison sheet would, for the X.Y. & Co. Ltd. board meeting of June, Year B, read as follows—

X.Y. & CO. LTD.
ASSETS, LIABILITIES AND NET WORTH
FOR YEAR ENDING 31ST MARCH, YEAR B

No.	Item	Mar. Yr. A	Apl.	May	June	July
	ASSETS	£	£	£	£	£
	CURRENT ASSETS:					
1.	Liquid	21,183	24,763	22,919	24,500	
2.	Working	26,147	25,334	23,742	22,687	
3.	TOTAL CURRENT ASSETS	47,330	50,097	46,661	47,187	
	FIXED ASSETS:					
4.	Tangible	24,084	23,846	23,610	23,376	
5.	Intangible	2,800	2,800	2,800	2,800	
6.	Fictitious	1,000	1,000	1,000	1,000	
7.	TOTAL FIXED ASSETS	27,884	27,646	27,410	27,176	
8.	TOTAL ALL ASSETS	75,214	77,743	74,071	74,363	
	LIABILITIES					
	CURRENT LIABILITIES:					
9.	Accrued and Mat. 3 mths.	16,846	17,233	9,247	9,540	
10.	Maturing 4–6 mths.	40	1,600	1,500	700	
11.	Maturing 7–12 mths.	1,371	1,592	2,012	2,363	
12.	TOTAL CURR. LIABILITIES	18,257	20,425	12,759	12,603	
13.	MEDIUM-TERM LIABILITIES	—	162	3,884	4,086	
14.	LONG-TERM LIABILITIES	4,850	4,850	4,850	4,850	
15.	TOTAL ALL LIABILITIES	23,107	25,437	21,493	21,539	
	NET WORTH					
16.	Share Capital	30,000	30,000	30,000	30,000	
17.	General Reserves	19,000	19,000	19,000	19,000	
18.	P. and L. Balance	3,107	3,306	3,578	3,824	
19.	TOTAL NET WORTH	52,107	52,306	52,578	52,824	
20.	WORKING CAPITAL	29,073	29,672	33,902	34,584	

FIG. 9

It will be seen that a comparison sheet entered in this manner reduces the figures submitted to the smallest possible number, and yet provides the director with the information that he ought to have as to the company's financial position. From it, all normal financial ratios can be obtained, and the month-by-month results are constantly visible as the year proceeds. There are no subtractions or comparative rises and falls shown, as these complicate the sheet unduly, and if the director is anxious to see differences, it is only the matter of a moment for him to work them out for himself.

The Detail Sheet

The accountant's detail sheet would show the items that compose the totals, and the reserves and provisions existing each month. This document would naturally be more complicated, but it would not be circulated. It would be held ready at the board meeting for explanation of any item desired. It could also conveniently be recorded on a comparison sheet, but taking six months to the fourteen columns instead of twelve.

How it was made up would depend, naturally, upon the company's circumstances, but a typical detail sheet might take the form set out in Fig. 10.

The financial accounts of a business consist of a vast number of individual entries in a range of journals, ledgers, and other books of account, whether in bound or card form. Balances are posted from one to the other, and the well-known items which figure in balance-sheets and profit and loss accounts are only the main group-headings of income and expenditure, or assets and liabilities. It is important therefore to decide where the dividing line comes between the group headings presented to the board, and the group details recorded in the accountant's detail sheet.

The directors are only interested in the tendencies of movement shown between the main categories. It is to the accountant that they should turn for any explanations that they may require as to the detail changes that lie at the root of these movements. The practical line of division would therefore seem to lie where it has been shown here—i.e., only main categories being presented to the board, and all details kept back in the accountant's detail sheet. The latter can be made as complex and all-embracing as the accountant may think fit—since his trained mind is going to

X.Y. & CO. LTD.

DETAIL SHEET: ASSETS AND LIABILITIES

FOR YEAR ENDING 31ST MARCH, YEAR B

No.	Item	Mar. Yr. A		Apl. Yr. B		May Yr. B		June Yr. B	
	Description	Reserves or Provns.	Net	Reserves or Provns.	Net	Reserves or Provns.	Net	Reserves or Provns.	Net
		£	£	£	£	£	£	£	£
1.	LIQUID ASSETS								
	Cash		6,564		8,426		7,508		7,725
	Tax Reserve Certificates		2,000		2,000		—		1,500
	Trade Debtors, gross	12,735		14,723		16,119		15,927	
	Prov. for Cartons, etc.	1,000		1,000		1,100		1,245	
	„ „ Bad Debts	1,250		1,250		1,250		1,600	
	Total Reserves	2,250		2,250		2,350		2,845	
	Trade Debtors, net		10,485		12,473		13,769		13,082
	Sundry Debtors and Prepayments		2,134		1,864		1,642		1,725
	Bills Receivable		—		—		—		468
	Total Liquid Assets		21,183		24,763		22,919		24,500
2.	WORKING ASSETS								
	Raw materials, gross	4,078		3,467		2,821		3,389	
	Provisions	450		450		450		450	
	Raw materials, net.		3,628		3,017		2,371		2,939
	Work in Progress, gross	17,900		15,642		13,449		11,347	
	Provisions	3,700		2,739		2,400		2,200	
	Work in Progress, net		14,200		12,903		11,049		9,147
	Finished Goods, gross	8,319		10,225		12,104		12,101	
	Provisions	—		811		1,782		1,500	
	Finished Goods, net.		8,319		9,414		10,322		10,601
	Total Working Assets		26,147		25,334		23,742		22,687
4.	TANGIBLE ASSETS								
	Land, Plant and Buildings, gross	19,250		19,250		19,250		19,250	
	Prov. for Deferred Repairs.	2,300		2,300		2,300		2,300	
	„ „ Plant Replacement	3,616		3,854		4,090		4,324	
	Total Reserves	5,916		6,154		6,390		6,624	
	Land, Plant and Buildings, net.		13,334		13,096		12,860		12,626
	Investment in Subsidiary		8,500		8,500		8,500		8,500
	Trade Investments		2,250		2,250		2,250		2,250
	Total Tangible Assets		24,084		23,846		23,610		23,376

(continued on opposite page)

No.	Item	Mar. Yr. A		Apl. Yr. B		May Yr. B		June Yr. B	
	Description	Reserves or Provns.	Net	Reserves or Provns.	Net	Reserves or Provns.	Net	Reserves or Provns.	Net
		£	£	£	£	£	£	£	£
5.	INTANGIBLE ASSETS								
	Goodwill		2,500		2,500		2,500		2,500
	Patents		300		300		300		300
	Total Intangible Assets		2,800		2,800		2,800		2,800
6.	FICTITIOUS ASSETS								
	Advertising Expenditure		1,000		1,000		1,000		1,000
9.	CURRENT LIABILITIES ACCRUED AND MATURING IN 3 MONTHS								
	Trade Creditors		12,489		12,698		5,430		5,236
	Sundry Creditors and Accruals		1,141		1,266		1,135		1,324
	Bills Payable		—		—		1,100		1,600
	Prov. for Debenture Interest		—		53		66		80
	„ „ Price Reduction		—		—		300		1,300
	„ „ Income Tax (Yr. A)		1,000		1,000		—		—
	„ „ E.P.T.		2,216		2,216		1,216		—
	Total Current Liabilities accrued and maturing in 3 months		16,846		17,233		9,247		9,540
10.	CURRENT LIABILITIES MATURING 4–6 MONTHS								
	Prov. for Debenture Int.		40		—		—		—
	„ „ Price Reduction		—		500		1,000		700
	„ „ Income Tax		—		—		—		—
	„ „ E.P.T.		—		—		—		—
	Bills Payable		—		1,100		500		—
	Total Current Liabilities maturing 4–6 months		40		1,600		1,500		700
11.	CURRENT LIABILITIES MATURING 7–12 MONTHS								
	Prov. for Income Tax (Yr. B)		1,371		1,371		1,371		1,371
	„ „ E.P.T.		—		191		581		902
	„ „ Employees' Bonus		—		30		60		90
	Total Current Liabilities maturing 7–12 months		1,371		1,592		2,012		2,363
13.	MEDIUM-TERM LIABILITIES								
	Prov. for Income Tax (Yr. C)		—		162		384		586
	„ „ Contingencies		—		—		3,500		3,500
	Total Medium Term Liabilities		—		162		3,884		4,086
14.	LONG-TERM LIABILITIES								
	Debentures		4,850		4,850		4,850		4,850

FIG. 10

deal with it, and it will not be submitted to laymen who will not understand it.

Secondary Arrangements

Some accountants consider that it provides the directors with more valuable information if they are presented with a secondary arrangement of the figures, rather than the primary balance-sheet itself. In other words, whilst the type of document suggested by Mr. Pollitt in Account No. 2 should not actually take the place of the balance-sheet, it might well be the type of statement most suitable for board use.

Under such circumstances the June figures of X.Y. & Co. might be submitted thus—

X.Y. & COMPANY
FINANCIAL STATEMENT FOR JUNE, YEAR B

	£	£	£
CURRENT ASSETS:			
Liquid	24,500		
Working	22,687		
TOTAL CURRENT ASSETS		47,187	
Deduct:			
CURRENT LIABILITIES:			
Accrued and Maturing within 3 months	9,540		
Maturing 4–6 months	700		
Maturing 7–12 months	2,363		
TOTAL CURRENT LIABILITIES		12,603	
NET CURRENT ASSETS (WORKING CAPITAL)			34,584
FIXED ASSETS:			
Tangible	23,376		
Intangible	2,800		
Fictitious	1,000		
TOTAL FIXED ASSETS		27,176	
Deduct—			
OTHER LIABILITIES:			
Medium-term	4,086		
Long-term	4,850		
TOTAL OTHER LIABILITIES		8,936	
SURPLUS, F.A. OVER O.L.			18,240
TOTAL NET WORTH			52,824
Represented by—			
Share Capital		30,000	
General Reserves		19,000	
P. and L. Balance		3,824	
		£52,824	

FIG. 11

It is a matter of opinion whether a statement arranged in this manner is more effective than the straightforward primary arrangement shown in Fig. 9. The main difference (since the working capital is shown in Fig. 9) is that in Fig. 11 the remaining liabilities, other than current, are deducted from the fixed assets, and the make-up of the net worth suggested by the addition of the two items of surplus assets.

But it is assumed that any managing director desiring to control the movement of his finance would do so by means of the simple charts described later. Deducting the medium and long-term liabilities from the fixed assets gives a figure which, by itself, is meaningless. All figures necessary for control purposes can be obtained from the primary arrangement (Fig. 9) and the control exercised through the use of these, in their own environment, compared with previous results. The ultimate value of the type of arrangement shown in Fig. 11 is therefore open to question. Such secondary arrangements of the balance-sheet figures are often to be met with in textbooks, all designed to bring out some specific relation between the assets and the liabilities.

Summary

Summing up, it would appear that the balance-sheet as drawn up month by month and submitted to the managing director should show only the totals in the categories of assets and liabilities. Comparison sheets should accompany the balance-sheet, so that further comparative data are unnecessary. Checks and controls needed for financial management will be found elsewhere, based on figures obtained from the balance-sheet or from the accountant's detail schedule.

Narrative statements made up in different ways should only be prepared when called for to fulfil some special purpose.

CHAPTER VI

THE PROFIT AND LOSS ACCOUNT

If the reader turns back to Fig. 2, the circulating capital diagram, he will see that whilst the balance-sheet records the value at a given date of the material stock, the work-in-progress, and the finished goods stock between A and C, the debtors between C and D, and the various assets and liabilities shown between D and A, it does not record either the amounts passing down the channels marked "materials, wages, and establishment charges," or the sales turnover passing over the point C during a period, or the profit that has come into the circulating flow.

A balance-sheet fails to indicate whether a concern is making or is losing money. This financial statement merely indicates the resources and liabilities of a business enterprise at a particular date. . . . In short, the balance-sheet is nothing but a snapshot of the financial condition of a business at a given moment.*

For the record of the amounts expended in materials, wages, and establishment charges, the figure of sales achieved, and the amount of profit in the sales, the managing director must turn to his profit and loss account. There he will—or ought to—find all these items set out clearly under their different categories of income and expense, arranged in the sequence called for by the management framework of that class of business. Since the profit factor will decide whether his trading is a success or a failure, and the profit emerges from deducting the total expenses from the total sales turnover, it is obvious that whilst his balance-sheet will tell him where he stands, his profit and loss account will tell him where he is going, and why.

If the old-fashioned form of balance-sheet presentation needs modifying to meet modern industrial management requirements, far more so does the profit and loss account require the same treatment. The variations in the present practice of recording income and expenditure are so wide that it is quite impossible to make any comparison between the results obtained by one company and another without the most careful analysis of the items entered, and a subsequent rearrangement of the figures.

* *Practical Bank Credit*, by Foulke and Prochnow (Prentice-Hall, Inc.).

This largely arises from the fact that the technique of the professional accountant is still generally based upon annual accounts, as in the case of the balance-sheet. Where an annual record of income and expenditure was concerned, it was of little consequence where the different items were entered in the lay-out, provided the items were kept inside their appropriate sections. These sections consisted usually of a manufacturing account, a trading account, a profit and loss account and an appropriation account—all, except the first, starting with a balance carried down from a previous statement.

The Old Method

The manufacturing account was broadly intended to show the prime cost of manufacturing the goods sold—i.e. the direct materials, the direct wages, and any expenses which were chargeable to specific jobs. The left-hand side of the statement set out the opening stocks and work-in-progress at the beginning of the period; to these were added the prime cost figures. On the right-hand side the sales turnover was shown, and the closing stocks and work-in-progress at the end of the period. The difference between the two sides was the balancing figure carried down.

The trading account then showed the balance brought down from the manufacturing account on the right hand, and on the left a long list, in no particular order, of all the various expenses arising in connection with the manufacturing and the trading. The difference between the two totals was called the gross profit. This was carried down again to the profit and loss account, which set against the gross profit plus sundry income a miscellaneous collection of expenses relating to the selling and administrative side of the business. The difference between these two was the net profit.

The appropriation account then took up the tale, adding the net profit for the period to the balance of profit carried forward from previous years in the business. From this were subtracted various items such as transfers to reserves and dividends, and the balancing figure between the two totals was the profit carried forward in the balance-sheet.

Disadvantages

This method of recording the income and expenditure of a company, with a view to arriving at the final profit for the period,

possesses, from the manager's point of view, a number of serious disadvantages. There seems to be no common agreement as to which items should go into the trading account, and which into the profit and loss account, whilst the manufacturing account is often omitted altogether. Therefore what one firm terms gross profit may omit items which another firm will include. Even the term "net profit" is unsafe for comparative purposes without checking, since some firms include in the profit and loss account expenditure which others leave to be dealt with in the appropriation account.

Moreover, the items are often not only arranged without the smallest regard to management sequence, but they are frequently combined in such a manner as makes it impossible for the manager to see clearly where the money has actually been spent. For instance, direct and indirect wages, overtime and night-shift payments, and National Insurance will be combined under one heading of "Wages," and indirect material will be included with direct material as "Purchases." Many accounts include quite a large proportion of the expenditure under the simple heading of "Trade Expenses," and other examples might be given of how unsuitable the normal form of trading and profit and loss accounts is to help the manager to see what is going on.

This fact is fully recognized by the more advanced group of accountants who are in close contact with industry—

> The principles of correct classification are fairly well established. It is disheartening to find how seldom they are put into practice. Only too often the financial accounts are antiquated in structure and confused in substance. Their form was probably established, when the business was small, by an official without any great knowledge of accountancy; and the desire of the management to obtain comparative figures year by year has prevented any effort to improve the method of presentation. The result, in many cases, is that if they had been specially designed to give the minimum of the information that one should expect, the job could not have been better done. Yet they form the premises from which the business man makes deductions that are vital to the conduct of his affairs. They ought to supply him with the key to the control of his whole organization.*

Perhaps it is unfair to criticize the customary lay-out of trading and profit and loss accounts from the management standpoint, since they were never intended to be used for management purposes. When the original stereotyped form of setting out the

* *Business Investigations*, by David Finnie, M.A., C.A. and S. S. Berlanny, C.A. (Pitman).

income and expenditure of a business grew by degrees into its present form its only object was to list the total of the balances in the company's books and so, by deduction, find the profit for the period. That was a century or so ago, and indeed the idea that the figures of the business provide the best working tools that the managing director can desire only came into existence thirty or forty years ago, and then only amongst the more advanced industrialists, backed by a few far-seeing accountants. Now, however, the presentation of the accounting figures in a form which enables them to be used by managers has become recognized as a specialized management technique under the title of "management accounting," so that progress may be expected.

The Narrative Lay-out

Experience has shown that the "narrative" form of profit and loss account (i.e. the form in which the sales turnover is shown at the top of the page, and each class of expense is deducted in turn, according to the management sequence, until the final profit is brought out at the bottom of the page) is much more adapted for management purposes than the customary "balancing" form. This is not the case with the balance-sheet. In the latter, assets on one side represent, and therefore must balance against, liabilities and net worth on the other—hence the "balancing" type of statement is both convenient and effective. But the profit and loss account is a record of events that have taken place, and in it lies all the romance of industrial and commercial effort to create real wealth. It starts, at the outset, with the sales for the period; and no one with any experience in industry will fail to overlook the efforts, the plans, the hopes—the successes and the failures—that lie behind that simple figure at the head of the sheet. The item of "direct material purchased" may summarize the most strenuous efforts on the part of the chief buyer to find better sources of supply of more reliable materials, to reduce the cost of the product by some new and lower-priced material which gives better results at less cost, and so on. All down the page the figures tell the tale of what has been spent in running the business —sometimes a tale of triumph over obstacles and difficulties, and sometimes, unfortunately, a tale of woe and failure. Yet, all through, it is the story of what has occurred in carrying on the business for a certain period, and for that reason the narrative

type of record is most effective. There is no need for the old-fashioned break-up into manufacturing, trading, and profit and loss accounts. All should be combined in one narrative "Statement of Account," so that what has actually occurred can be clearly seen and understood.

In monthly accounts the managing director must first know his sales turnover (including carriage), less credits and returns, since that tells him how much money will eventually return to him from the debtors as a result of the month's working, if no bad debts have been incurred. He then turns to the expenses that have had to be incurred in order to produce the goods, and his first milestone is the cost of the goods sold, i.e. the cost of the direct material and wages, plus the cost of the services necessary to carry on the manufacture—known as the factory oncosts.

His manufacturing can hardly ever be in direct step with his selling. The two organizations, however well they may play up to each other, have each a momentum of its own which must be allowed for. Sometimes the factory will produce more than the sales department can sell, and sometimes vice versa, so that the stock of finished goods and the work-in-progress are bound to vary month by month.

Output Compared with Sales

Since the monthly accounts record the direct wages paid during the month, it is important for the managing director to know what output of goods has been produced for those wages paid, quite irrespective of whether the output has been sold or not. Where the sales department is lagging, part of the output will go into stock; where the sales department is ahead, part of the sales will be drawn from stock. For this reason the only way to ascertain the cost of manufacture of the goods represented by the sales turnover for the month is to bring into the calculation the rise or fall of stock and work-in-progress during the period—it being assumed that, as discussed later, this stock and work-in-progress is carried at factory cost and not at prime cost.

In this manner it is possible to ascertain the cost of the goods sold and subtract this figure from the sales turnover, to arrive at the gross profit. From this all the residual establishment charges have got to be paid, at the same time leaving a profit at the bottom of the page.

Exceptional Trading Expenses

At this point it is an advantage to consider a certain class of expenditure which has been entitled "exceptional trading expenses." In a normal business the establishment charges relating to the factory, the selling organization, and the administrative section, should keep within close limits month by month, whether these limits are increasing, decreasing, or keeping steady. In every business, however, there arise from time to time exceptional items of a non-recurring nature which have to be met, but which are so unusual in their incidence that if they were included amongst the factory oncosts or the company overheads, a false impression would be given. One actual instance in the writer's experience of expenditure of this nature was a flood in the factory due to a cloud-burst which caused a considerable amount of damage, both to the buildings and to the company's records, to remedy which cost a sum of some £800. Another instance was a lawsuit which the company lost, involving a payment of £1500. Other items of a lesser but still upsetting nature can be called to mind by most industrialists, and for management purposes it is better, therefore, to keep these in a category by themselves under the heading of "exceptional trading expenses."

Some authorities, whilst recognizing the value of keeping these non-recurring exceptional expenses separate from the factory oncosts and company overheads, prefer to include them lower down in the latter. The argument would be that both the examples mentioned—the flood and the lawsuit—were expenses which could more properly be included in the general expense of the company as a whole than in the expenses of the factory. This is true, and this position has the further advantage that the "factory surplus" then becomes the gross profit, and this major milestone on the road to the final profit thus takes the position normally given to it in orthodox accounting, which is an advantage where comparisons are involved.

In any case, the whole point of segregating these exceptional trading expenses is to maintain the regularity of both the factory oncosts and the company overheads. The exact point in the narrative at which they are brought in is therefore of little significance. The only key-figure affected by their position is the gross trading profit.

Residual Charges and Sundry Income

Deducting the working expenses, adjusted for stock changes, from the sales, we arrive at the gross trading profit. Next the managing director will wish to see his selling expenses and his general administrative expenses, including the fixed charges for debenture or loan interest which have to be paid as the penalty for trading on borrowed capital. When the sum of these is deducted from the gross trading profit we arrive at the net trading profit.

Now most firms have income of some kind or another which arises from some source other than normal trading. It is important that income of this nature should be kept clearly separate from the trading income, as otherwise an altogether false impression of the profit-making capacity of the business may be gained. Income from investments, cottage property, or any sums brought in from sources outside the trading should appear here. A paid-up claim for loss of profit due to a fire or any other reason would be shown here also, since although it represents profits which the company considers would have been made had it carried on trading during the period when the fire prevented that trading, none the less it is money obtained from sources other than the actual trading which took place.

This sundry income is, of course, a legitimate addition to the trading profit or loss, and after adding it in, the result is known as the "net profit on the going concern."

At the next further stage in the management survey, allowance must be made for payments due to items arising outside the trading year under review. Taxation must be paid, but the amount due is only ascertainable after the financial year has closed. If, however, the managing director wishes to know how his final profit figure is standing at the end of the trading period under review, he must have information as to how much of what he has gained by the current trading he has to pay away to meet claims due to a previous period.

Deducting, therefore, any items of this nature from the net profit on the going concern, we arrive at the final profit for the period.*

* To ascertain the cash resulting from that profit, depreciation has to be added back.

Adjustments

There remains one final stage. Reference has been made to the inevitable need of including adjustments of one kind or another when a company is working with monthly accounts, and the necessity of building up a control method flexible enough to make allowances for those adjustments. They must be made outside the current monthly results, as otherwise they will falsify the true results for that month. On the other hand, they must not be omitted, as otherwise the final profit for the period will not show the true facts of the case. It has therefore been found in practical control working that the best method is to have at the foot of the Statement of Account a section for Adjustments, where such items are noted as they arise and added to or deducted from the final profit for the period, to arrive at the "final profit after adjustments."

Definitions

In management control, therefore, the definitions of the stages by which the final profit for the period is found are as follows—

1. *Gross Trading Profit (or Loss)*, indicating the figure resulting when all normal recurring manufacturing or process expense (including depreciation) has been deducted from the gross sales (less returns).

In certain types of undertaking the gross profit is a more certain indicator of the activity of the business than the sales turnover. For instance, where second-hand machinery and plant are bought and resold, £5,000 turnover may bring in £100 of gross profit, where another deal of £500 may produce £200.

Most of the variances in lay-out of the standard Statement of Account called for by unusual types of business are to be found above the gross profit line.

2. *Net Trading Profit (or Loss)*, indicating the figure resulting after the company overheads and the fixed charges on borrowed capital have been deducted from the gross trading profit.

3. *Net Profit (or Loss) on the Going Concern*, indicating the figure resulting after the sundry income (not from trading) has been added to the net trading profit.

4. *Final Profit (or Loss) for the Period*, indicating the figure resulting after any special charges (expenses not relating to the trading period under review, or not arising from the current

C.D. & CO. LTD.

MANUFACTURING, TRADING AND PROFIT AND LOSS ACCOUNTS

YEAR ENDING 31ST DECEMBER, YEAR B

	£		£
To Stock on Hand 31st December, Yr. A	20,761	By Sales	256,211
,, Tools Purchased for Contracts	2,872	,, Stock on Hand 31st December, Yr. B, Materials, Work in Progress and Finished Goods	40,299
,, Purchases	186,867		
,, Carriage and Packing	4,865		
,, Instruction Books	186		
,, Wages of Productive Staff	23,678		
,, Balance Carried Down	57,281		
	296,510		296,510

	£		£
To WORKS EXPENSES		By Balance Brought Down	57,281
,, Works Manager's Salary, Wages of Non-productive Staff and Office Salaries	22,435		
,, National Insurance	826		
,, Rent of Factories	2,200		
,, Rates	327		
,, Insurance	2,378	*Page 1*	
,, Packing and Carriage	3,235		
,, Printing and Stationery Incl. Drawing Materials, Photographic Expenses, etc.	790		
,, Telephone	557		
,, Light, Heat and Power	1,058		
,, Travelling and Incidental Exp.	638		
,, Motor Exp. Incl. Insurance	883		
,, Factory Removal	542		
,, Breakages, Spoilt Work, etc.	2,998		
,, Maintenance and Rep. to Plant	1,093		
Carried Forward	39,960	Carried Forward	57,281

	£		£
Brought Forward	39,960	Brought Forward	57,281
To Maintenance and Rep. to Loose Tools	130		
,, A.R.P. Expense	702		
,, Factory Dilapidations	370		
,, Maintenance and Rep. to Premises	791		
,, General Labour and Supplies	674		
,, Insp. and Testing (Material)	106	*Page 2*	
,, Experimental do.	196		
,, Consumable Stores	253		
,, Postage	128		
,, Overalls and Towels	373		
,, Sundry Expenses	858		
,, Accountancy and Audit	542		
,, Commission Paid	38		
,, Firewatching and H.G. Exp.	407		
,, Bank Charges	338		
,, Discounts and Allowances	53		
Carried Forward	45,919	Carried Forward	57,281

FIG.

C.D. & CO. LTD.

MANUFACTURING, TRADING AND PROFIT AND LOSS ACCOUNTS

YEAR ENDING 31ST DECEMBER, YEAR B

(continued)

	£		£
Brought Forward .	45,919	Brought Forward .	57,281
To Obsolescence of Motor Cars	39		
,, ,, ,, Plant .	324		
,, Depreciation . . .	1,685		
,, Balance Carried Down .	9,314		
	57,281		57,281

To OFFICE EXPENSES	£		£
,, Salaries. . . .	1,850	By Balance Brought Down .	9,314
,, Salaries and National Ins.	1,623	,, Interest on Investments .	334
,, Rent, Light and Heat .	321		
,, Travelling and Inc. Exp. .	459		
,, Postages . . .	162		
,, Printing and Stationery .	146	*Page* 3	
,, Telephone and Cables .	389		
,, General Expenses . .	479		
,, Depr. Office Furniture .	10		
Carried Forward .	5,439	Carried Forward .	9,648

	£		£
Brought Forward .	5,439	Brought Forward .	9,648
Commission	29		
	5,468		
Intrst. on 6 per cent Debenture.	1,200		
Balance, Being Profit for the Year, Subject to Taxation, Carried to Balance-sheet .	2,980	*Page* 4	
	£9,648		£9,648

trading activities) have been deducted from the net profit on the going concern.

In the case of the monthly statements of accounts only, and not in the final account for the financial year—

6. *Final Profit (or Loss) after Adjustment,* indicating the figure resulting after all adjustments found necessary to maintain the accuracy of the books of account have been added to or deducted from the final profit for the period.

Advantages of this Method for Management Control

At first sight the above may appear to be an unnecessarily complicated set of milestones from the sales turnover to the final profit after adjustments. Those who adopt them, however, find that each is necessary, having its own significance in management control. The figures recorded are "clean," each in its own management category, and thus it is possible from this primary document with its subsidiary detail sheets, to make up secondary statements of one kind or another to show any form or combination of the figures that may be required. Direct wages, direct material used, prime cost, the factory oncost burden split up into indirect material, indirect wages, factory general charges and factory standing charges, the rise or fall in value of raw material stocks, work-in-progress, or finished goods stock, the output for the month in sales value, the cost of goods sold (a vital figure), the selling and distribution expenses, the general administrative expenses, the sundry income not from trading, the exceptional trading expenses, the special charges relating to other years—all these can be found without difficulty from a statement of account set out on these lines. Percentages can also be obtained, whether against the sales figures or the cost-of-goods-sold figure, and many years of practical use of this method in industry has shown that there is virtually no information which a managing director may require to control his business that cannot be quite simply found if the accounts are arranged in this manner.

An Actual Example

A practical example may perhaps serve a useful purpose. Fig. 12 shows the manufacturing, trading, and profit and loss accounts, set out on the method usual in accounting practice, for C.D. & Co. Ltd. This is an actual copy (with all figures altered by

C.D. & CO. LTD.
STATEMENT OF ACCOUNT
YEAR ENDING 31ST DECEMBER, YEAR B

Ref.	Item	£	£	%
	Sales Turnover		256,211	100·0
	COST OF GOODS SOLD			
1.	Opening Stock and w.i.p.	20,761		
2.	Direct Materials Purchased	191,732		
3.	Direct Labour	22,231		
4.	Factory Oncost	48,173		
	Sum.	282,897		
	Deduct:			
(1)	Closing Stock and w.i.p.	40,299		
	COST OF GOODS SOLD		242,598	94·7
	GROSS TRADING PROFIT		13,613	5·3
	Deduct:			
5.	Company Overheads	9,225		
6.	Exceptional Tr. Expenses	542		
7.	Fixed Charges	1,200	10,967	4·3
	NET TRADING PROFIT		2,646	1·0
	Add:			
8.	Sundry Income		334	·1
	PROFIT ON GOING CONCERN		2,980	1·1
	Deduct:			
9.	Special Charges		—	—
	FINAL PROFIT FOR PERIOD		£2,980	1·1

FIG. 13

multiplying them by a constant) of the final audited accounts of an engineering firm. The original occupies four pages 12¾ in. × 17 in. Certain unimportant simplifying adjustments have been made, but otherwise it is unchanged.

It will be seen that the first section carried no heading, but records, broadly, the prime cost of the goods sold. The second section is headed "To Works Expenses" and contains the remaining factory expenditure, and the third, headed "To Office Expenses," covers the general administration. The lines ruled across in the example show the division caused by the four pages occupied. The arrangement of the items is as in the original.

The statement of account, like the balance-sheet, is a primary document, and should never show details. It should present only the total figures in each category, arranged in their logical sequence so that the deduction of the various classes of expenditure, and the way in which the profit thereby lessens, can be clearly seen. The accompanying detail sheets should reproduce the headings of the primary statement, and under them set out the detailed sub-totals, again arranged in their logical sequence.

For management control purposes the statement of account for C.D. & Co. Ltd. would therefore be submitted to the managing director as shown in Fig. 13, page 77.

This gives him a clear idea at once of what is going on in his business—the cost of goods sold is too high to allow him a reasonable profit, even though his residual charges (all other expense outside the factory) are low. If he desires further details, as he probably will, he can turn to the detail sheets, Figs. 14 and 15, and there see how the various totals are made up.

The value for management purposes of the modern lay-out needs no argument. There is no more difficulty in presenting the figures of the business in this manner each month than there is in presenting them in the old way. It is merely a matter of arrangement.

Comparison Sheet Entries

As in the case of the balance-sheet, the monthly statement of account with its detail sheets are primary transfer documents, and all the figures should be entered up at once in fourteen-column comparison sheets. In this way the managing director can watch the rise or fall of any item month by month, and have prepared

C.D. & CO. LTD.

YEAR ENDING 31ST DECEMBER, YEAR B

EXPENDITURE DETAIL SHEET (1)

Ref.	Detail	Opening	Closing	Decrease	Increase
1.	STOCKS AND WORK-IN-PROGRESS	£	£	£	£
	Finished Goods	3,189	5,364	—	2,175
	Work-in-Progress	11,145	24,792	—	13,647
	Sum	14,334	30,156	—	15,822
	Direct Material	6,427	10,143	—	3,716
	Total	20,761	40,299	—	19,538

Ref.	Detail	£	£
2.	DIRECT MATERIAL PURCHASED (including Carriage and Packing Charges).		
	RAW MATERIALS:		
	Steel Bar, Sheet and Section	11,147	
	Non-Ferrous Sheet and Section	16,311	
	Malleable Iron Castings	18,467	
	Non-Ferrous Iron Castings	31,585	
	Other Direct Material	17,305	
			94,815
	FINISHED GOODS AND COMPONENTS:		
	Electric Motors	42,760	
	Electric Equipment	12,475	
	Diesel Engines	22,226	
	Diesel Equipment	9,422	
	Miscellaneous Components	10,034	
			96,917
	TOTAL DIRECT MATERIAL PURCHASED		191,732
3.	DIRECT LABOUR		
	Males over 21	3,634	
	Males under 21	1,602	
			5,236
	Females over 18	12,439	
	Females under 18	4,556	
			16,995
	TOTAL DIRECT LABOUR		22,231
4.	FACTORY ONCOST		
	INDIRECT MATERIAL:		
	Light, Heat and Power	1,058	
	Tool Room Supplies	2,872	
	Drawing Office Supplies	565	
	Works Office Supplies	225	
	Inspection Materials	106	
	Experimental Materials	196	
	Packing Materials	635	
	Consumable Stores	253	
	TOTAL INDIRECT MATERIAL		5,910
	INDIRECT LABOUR:		
	Supervision	3,675	
	Production Office and Shop Clerical	2,438	
	Inspection	2,443	
	Tool Room	2,472	
	Drawing Office	3,822	
	Stores	985	
	General Labouring	5,009	
	TOTAL INDIRECT LABOUR		20,844

(continued on next page)

GENERAL CHARGES:		
Management Salaries	2,265	
N.H. and U.I.	826	
Telephone	557	
Postage	128	
Travelling and Incidental Expenses	638	
Motor and Incidental Expenses	883	
Repair and Maintenance—		
Plant	1,093	
Premises	791	
Tools	130	
Night Shift and Overtime Rates	1,447	
Breakages and Spoiled Work	2,998	
A.R.P. Expenses	702	
Firewatching and Home Guard Expenses	407	
Overalls and Towels	373	
Factory Dilapidations	370	
Sundry Expenses	858	
TOTAL GENERAL EXPENSES		14,466
STANDING CHARGES:		
Rent	2,200	
Rates	327	
Insurances	2,378	
Depreciation	1,685	
Obsolescence	363	
TOTAL STANDING CHARGES		6,953
TOTAL FACTORY ONCOST.		48,173

FIG. 14

for himself any other comparative figures that can assist him, such as the results of certain figures "per working day" or "per £1 direct labour." The former is a valuable basis of comparison, since calendar months are of different lengths, and a month having more working days will naturally show a rise in direct labour when compared with a month of fewer working days. On a p.w.d. basis the figure may be actually falling. This comparison would only apply to those items of expense directly dependent upon the number of days' activity during the month. Salaries and other expenses payable on a monthly basis would naturally not be affected.

Finished goods stock and work-in-progress should always be held at factory or manufacturing cost, and not at prime cost. Some companies, probably influenced by the old idea of keeping stock at as low a figure as possible in order to provide a secret profit reserve, adopt the practice of valuing finished goods and work-in-progress at prime cost only, and are reluctant to change because the re-valuation would expose the profit reserve. But for management purposes the practice of prime cost valuation is fundamentally unsound, since if goods made in period A are sold out of stock in period B, period B will be credited with a profit which was not really made in that period. In addition, if goods made in period A are placed in stock, that period will have to

C.D. & CO. LTD.

YEAR ENDING 31ST DECEMBER, YEAR B

EXPENDITURE DETAIL SHEET (2)

Ref.	Detail	£	£
5.	COMPANY OVERHEADS		
	SELLING EXPENSES:		
	Salesmen's Salaries	1,100	
	Commission	29	
	Travelling and Entertainment	230	
	Advertising	165	
	Instruction Books	186	
	Postage	76	
	Telephone, Telegrams and Cables	278	
	TOTAL SELLING EXPENSES		2,064
	GENERAL CHARGES:		
	G.M. Salary and Directors' Fees	1,200	
	Office Salaries and N.H.U.I.	1,173	
	Light and Heating	41	
	Travelling and Entertainment	229	
	Carriage Outwards	2,600	
	Postage	86	
	Printing and Stationery	146	
	Telephones and Telegrams	111	
	Accountancy and Audit	542	
	Bank Charges	338	
	Commission	38	
	Discounts allowed (less rec/d.)	53	
	General Expenses	314	
	TOTAL GENERAL CHARGES		6,871
	STANDING CHARGES:		
	Rent	280	
	Depreciation	10	
	TOTAL STANDING CHARGES		290
	TOTAL COMPANY OVERHEADS		9,225
6.	EXCEPTIONAL TRADING EXPENSES		
	Factory Removal		542
7.	FIXED CHARGES:		
	Interest on 6% Debentures		1,200
8.	SUNDRY INCOME:		
	Interest on Investments		
	TOTAL SUNDRY INCOME		334
	SUMMARY OF EXPENDITURE:		
	Direct Material	191,732	
	Direct Labour	22,231	
	Factory Oncost	48,173	
	FACTORY EXPENSE		262,136
	Exceptional Trading Expenses	542	
	Company Overheads	9,225	
	Fixed Charges	1,200	
	RESIDUAL CHARGES		10,967
	TOTAL EXPENDITURE		273,103

NOTE— In order to complete the above Detail Sheets, certain items in the original have been split into their respective categories; e.g. "Works Manager's Salary, Wages of Non-Productive Staff, and Office Salaries—£22,435."

FIG. 15

carry the loss of the oncosts expended but not recovered in the stock figure.

With annual accounts this may not have mattered much, as it merely resulted in the transfer of profit from one year to another.* But where monthly accounts are used for management purposes, the error becomes a serious one, and any hope of basing management control upon the monthly profit and loss figures disappears.

The remedy is simple enough, and consists in the accounts being presented for control purposes with the stocks properly calculated on a factory cost basis, month by month. When the annual accounts are made up for audit the old prime cost basis can be reverted to, if desired, and in this manner the profit reserve will not have to be disclosed.

The example on page 83 shows the extent to which the profit is affected when work-in-progress and finished goods are valued under the two methods.

Problems of Stock Valuation

The ascertainment of stock values is one of the most uncertain and difficult problems in the whole field of industrial accounting, but it is impossible to find the figure of profit and loss for the period unless the closing stock value at the end of each period can be assessed on a reliable basis. The writer remembers some years ago being shown the monthly accounts of a large company, and at the foot of the profit and loss account the accountant had added the sentence, "Subject to stock variation." On inquiry it transpired that the company had not yet managed to devise any satisfactory means of finding its closing stock figure, and therefore the profit and loss account was being made out without taking stock and work-in-progress into account at all. The fact that the resulting figure of profit for the period was completely unreliable did not seem to worry the managing director, who lived in a state of cheerful uncertainty until the annual stock-taking, during which the works was closed for a week whilst a physical check was made. As a further three months elapsed whilst the results were being extended, valued, and totalled, the final figure was out of date before it came into being, and was only of value to complete the annual balance-sheet of the company.

* See *The Limitations of the Balance-sheet*, by the late Sir Gilbert Garnsey (Gee & Co.).

A. FINISHED STOCK AND WORK-IN-PROGRESS AT FACTORY COST

	£	£	£	%
Sales Turnover			353,409	100
Cost of Manufacture				
Opening Stock and W.I.P.				
Raw Material	32,947			
W.i.p. and Finished Goods	126,299			
		159,246		
Direct Materials Purchased		103,390		
Direct Labour		74,105		
Factory Oncost		91,933		
Sum		428,674		
Deduct:				
Closing Stock and W.I.P.				
Raw Material	25,103			
W.i.p. and Finished Goods	77,272	102,375		
Cost of Goods Sold			326,299	92·3
Gross Profit			£27,110	7·7

B. FINISHED STOCK AND WORK-IN-PROGRESS AT PRIME COST

	£	£	£	%
Sales Turnover			353,409	100
Cost of Manufacture				
Opening Stock and W.I.P.				
Raw Material	32,947			
W.i.p. and Finished Goods	87,599			
		120,546		
Direct Materials Purchased		103,390		
Direct Labour		74,105		
Factory Oncost		91,933		
Sum		389,974		
Deduct:				
Closing Stock and W.I.P.				
Raw Material	25,103			
W.i.p. and Finished Goods	53,652	78,755		
Cost of Goods Sold			311,219	88·1
Gross Profit			£42,190	11·9

Fig. 16

The writer has endeavoured elsewhere* to offer suggestions as to how to deal with this problem of finding closing stock values each month, but from the point of view of internal financial control it may be as well to emphasize the immense importance

* See *Higher Control in Management* (Pitman).

of achieving as accurate a figure as possible. The clearest possible lines of demarcation should be kept between current, slow-moving, and obsolete stocks, whether of raw material, work-in-progress, or finished goods. When writing down becomes an obviously prudent step, this should be left to the closing month of the year; if that is considered too long a period to wait, it should be done at the end of the half-year. The practice of writing down stocks at irregular periods is to be deprecated, though any sum written off can, of course, appear as an adjustment beneath the final profit for the period, and thereby avoid upsetting the true result of the trading.

Multiplying Errors

Apart from the general need for the nearest approach possible to accuracy in industrial accounts, the reason why the correctness of closing stock valuation figures is so important is because a small error in the value of a large closing stock may multiply into a large error in the profit figure. In Fig. 16 the value of the closing stock and work-in-progress at factory cost is £102,375, and the gross profit £27,110. Assuming a final profit of 5 per cent on sales, this would amount to £17,670. An error of 1 per cent in the stock valuation would amount to £1024 up or down, which would give an error of 5·8 per cent in the final profit. Few accountants would be prepared to claim an accuracy within 5 per cent between calculation and fact for a stock value of £102,375, yet a 5 per cent error would mean an error of 29 per cent in the final profit shown for the period, in this particular case. The danger, of course, varies with the dimension of the stock figure. When stock values are low, the danger is small; where they are high, the danger becomes a risk that must be guarded against as far as possible. But orthodox accountancy bases the figures for the months throughout the year upon the opening stock at the beginning of the year, and not upon the closing stock of the month preceding the month under review. The opening stock at the beginning of the year will be calculated on the physical stock-taking figure, and therefore is (or should be) reliable. In this way any monthly errors do not "snowball" but seem, by the law of averages, to compensate up and down.

Those who manage their businesses by means of monthly accounts must bear in mind that the figures need handling with a

sympathetic understanding of the problems with which the industrial accountant has to deal. Some managing directors are apt to assume that the monthly accounts submitted to them must be accurate to the last penny, and since it is quite impossible in monthly accounts to avoid adjustments (the calendar month or four/five-weekly period being so short a space of time), they are apt to throw discredit on the whole accounting structure when figures put forward in all good faith in a previous month have to be corrected.

This point of view is probably due to the fact that in the days when annual profit and loss accounts and balance-sheets were considered adequate for industrial purposes, and such statements were only used for managing a business in so far as the long-term policy was concerned, adjustments of this nature simply did not exist, as the final accounts were not submitted until all necessary corrections had been made. As a result, delays of anything from three to twelve months were—and still are—not uncommon between the end of the financial year and the production of the final figures.

The Accountant's Time-table

But monthly accounts used for managing the business must be produced to a regular time-table, and there is no time to wait until doubtful figures can be accurately determined. The accountant therefore must do the best he can, and his profit or loss for the month must be "subject to adjustment" for items previously uncertain and now cleared up.

Admittedly the computation of profit is not the result of a mathematical formula. It is a calculation in which in practice a wide latitude exists involving a lengthy series of estimations dependent so much on human judgment that the product is a matter of approximation rather than accuracy in the mathematician's sense.*

When the twelfth, or final, month arrives, the usual monthly figures will be termed "interim" and will be comparable with the eleven previous months. The accountant then makes up his final figures for the year; stock values are adjusted, any writing down or off takes place, all queries are settled, and the formal annual profit and loss account and balance-sheet submitted. This gives the "final" twelfth-month figures, which are not used for

* "Amongst the Balance Sheets," p. 34 (Gee & Co.).

management purposes since they are not comparable with the previous months. They merely provide the closing figures to complete the correct moving annual totals.

The "final" figures for the twelfth month may not be available for several months after the end of the financial year. This, however, does not handicap the managing director, who can carry on with the new monthly results as they appear, merely adjusting his moving annual total charts or other records to the correct positions as soon as the final results for the completed year are available.

The Manager and the Accountant

During the last ten years it has become clear that much constructive research work will be needed before the requirements of the manager and the technique of the accountant can be made to run smoothly in double harness. It is the duty of the accountant to produce a correct statement of income and expenditure, and of the assets, liabilities and net worth; the manager has to maintain the business in a profitable and secure condition. The accountant can only deal with the past, and the manager is concerned with the present and the future. It follows, therefore, that the monthly accounts, whilst conforming to that standard of truth and accuracy which has made British accountancy the model for the world, must at the same time provide the manager with a true picture of what is going on, so that he can plan and direct his present and future policy.

If the accounts of a business are to be used for this purpose, such statements as are drawn up for management purposes must, at times, be a compromise between the actual figures in the books of account and the figures which show what has actually occurred in the matter of income and expenditure. Where a recurring expense is paid quarterly or half-yearly, a reserve equivalent to the charge for a single month must be included in the monthly accounts, since that expense has been incurred. But this should only be done where an expense *has actually been incurred:* the practice adopted by some accountants of including reserves to cover expenditure that *may or will be incurred* in the future is a mistake if the accounts are to be used for control purposes, as the results no longer show what has actually taken place.

For instance, it is the practice in some concerns to include a

reserve each month to meet the portion of the factory oncosts which is not recovered during the annual works holiday. For eleven months a reserve is made of, say, £100 each month; during the holiday month the factory is credited with the £1100 and such factory surplus as is actually made during the holiday month is increased by that amount. The advantage of this practice is difficult to see. For eleven months the actual monthly profit made is understated by £100, and in the twelfth month it is overstated by £1100. The monthly profits may be thereby more nearly equalized, but the equalization of monthly profits is misleading to the managing director, if it is not true. The scheme seems to be based upon the practice of building up a cash reserve to meet an annual payment; but this is not here involved at all.

Control Requires Actual Results

If the business is to be controlled through the accounts, those accounts must show what has actually occurred, and the manager must learn to read and understand them in the light of his own knowledge of what is going on in the business. Figures, unfortunately, cannot talk; they are mute witnesses offering their evidence, and the manager, from them, can see precisely what has occurred, what is occurring, and what, if he adopts a certain course of action, probably will occur in the future. But the onus of the elucidation lies on him—the figures cannot do it for him.

The reader interested in the general management of an undertaking through its monthly figures will have to study the subject elsewhere than in this volume, which deals only with the management control of the internal finance of a business. That internal control cannot, however, be achieved unless the monthly figures are presented in a properly arranged fashion. The whole of the expenditure detailed in the statement of account arises in connection with the circulating capital. The fixed capital is in no way affected, since capital purchases or capitalized repairs are dealt with outside the statement of account. The proper subdivision of the monthly expenses is, therefore, the key to the control of the circulating capital so far as the internal movement is concerned, and for that reason recommendations as to this arrangement in the most effective manner are a necessary part of the present survey.

SECTION III

THE MOVEMENT OF THE MONEY

CHAPTER VII

THE TURNOVER OF TOTAL CAPITAL EMPLOYED AND THE INCIDENCE OF PROFIT

HAVING surveyed the amount of money in the business, where it has come from and where it is now, together with the two primary documents which provide the facts of the case, we have next to consider how the money moves whilst the going concern is operating. One of the most difficult problems that a managing director has to solve is how to pick out the facts and figures that matter. The life of the busy departmental manager may be a hard one, full from morning until night of things which must be dealt with—but it is an activity within a limited sphere, however large that sphere may be. As the grade of responsibility rises, the matters which cannot be settled by a sentence or an action increase in a proportion which is more geometric than arithmetic. The "work-in-progress," to use a familiar phrase in a new sense, grows ever larger, and whilst much may be done by decentralizing authority and distributing responsibilities on clear-cut lines, the final decision, especially in matters of policy, can only rest with the executive head of the concern.

This faculty of sorting what matters from what does not matter differs very widely amongst individuals. Some have a natural sense of values; others waste time and energy on effects without trying to seek for the cause. So in control work—the highest level of industrial management technique—the skill of the controller lies in watching effects in order to find causes—and in directing action to deal with those causes so that ill effects are removed or minimized and good effects safeguarded and stimulated.

Any concern in any industry is an immensely complex machine, full of mechanisms which must all function smoothly. All too often the indicators and gauges which should tell the individual in control what is going on are only scantily provided. No one to-day would think of putting in a boiler installation without an

adequate outfit of tell-tale instruments, usually of the recording type, by which the chief engineer can watch the efficiency of his steam production. Yet, in spite of all that is known about the subject at the present time, many a managing director is still compelled to run his business mostly "by guess and by God," since no one provides him with the instruments of control and he himself does not know the extent to which they actually exist. He works harder than anyone else in his concern, generally, and is acutely conscious of the weight of his responsibilities towards his shareholders above him and his employees below him. He sees effects without number and more often than not knows or finds out the causes and initiates action to influence them in the right direction. But unless he can be provided with a proper set of recording instruments, much of his effort may be wasted or applied in the wrong direction.

The Stress of the Daily Round

In most industrial concerns each day brings with it a fresh batch of problems. The post-bag is full of inquiries, complaints, proposals and discussions; the telephone is a fruitful source of more. Mistakes or oversights or hitches in the internal organization contribute to the burden of matters to be dealt with, whilst all the time the hang-over from previous days or weeks, coupled with all the necessary development work initiated from inside the firm, adds a background of pressure to what has to be done. How often does one hear, "Yes, I ought to have that information, but we simply haven't the time to get it out"—and that applies, only too frequently, to the very instruments of management which should be the first concern of those responsible for the running of the business. Yet the provision of those instruments, the limited set of schedules and charts which would clearly show the managing director what is going on, is a simple matter, not even employing the full time of one individual in total, and the excuse that there is not time to deal with such matters only too often covers the uneasy knowledge that the functional management is not sufficiently well organized for the data to be provided. And so no attempt is made really to control the business.

The writer has dealt with the general framework of industrial control in another work (*Higher Control in Management*). Since we are here concerned only with the internal finance, the problem to

be solved is which items recording the movement of the money should be selected as being the exceptions important enough to provide a similar framework for the control of the internal finance of the business.

Exception Control and Total Control

More than fifty years ago F. W. Taylor, the great American industrial consultant, drew attention to the important difference between "exception control" and "total control." In his organization work in connection with production in factories, he had found that to try to keep control of all the aspects of the work defeated its own purpose—the movement was so rapid that to endeavour to watch everything that was going on ended in a network of paper and red tape which checked and discouraged the free movement he was trying to organize. He used to aim, therefore, at concentrating his control organization on the exceptionally important aspects, assuming—quite correctly—that the minor details would function smoothly if the major factors were kept on the right lines.

In Taylor's dictum lies a fundamental principle of industrial management which Taylor himself probably did not realize at the time he noted it, as he did not develop it, or indeed even state it clearly. Its neglect has led to unnecessary difficulties and delay in many aspects of industrial life—notably in the early organization of the national war effort and in the post-war organization for the rebuilding of industry. To apply it here we need to look for the exceptionally important items in the financial movement and then set up recording mechanisms by which that movement can be watched—and so controlled.

The Turnover of Total Capital Employed

As we have seen, the total money in the business at any moment, or the "total capital employed," is to be found in the figure recorded at the foot of the assets column in the balance-sheet, less any fictitious assets.

Now a company exists to trade, or to provide goods or services of some kind or another. Therefore, the total capital is employed in that trading, some of it being used to provide the fixed assets by which the goods or services are produced and the rest of it providing the current assets or circulating capital which pay for

the expense of that production. The result of the production activity is found in the sales, and the more sales made the more profits should return. It is clear, therefore, that the first and most important "exception" in the financial control is the amount of sales achieved by the use of the total capital in the business, or, as it is usually termed, the turnover of total capital employed.

All financial management authorities agree on the importance of this figure of turnover of total capital employed.

The turnover of total capital used expresses the relation of the volume of business done to the total capital employed. It is a broad measure of the economy and efficiency observed in the use of capital in a business—a measure of the effectiveness of the financial management.*

Inside this "broad measure" lie all the factors which must subsequently be surveyed. Their interplay and influence on each other result, at the finish, in more or less sales, more or less profit, faster or slower movement of the money, and the ever-changing relation to each other of the different classes of investment. But first and foremost for the managing director comes the question "Has my turnover of total capital employed increased or decreased?" Whatever the answer may be, the next question is *always* "Why?"—and in the search for the answer to that he will come upon all the problems of internal financial control.

Clearly the turnover of total capital employed will vary widely between the various industries, depending upon the proportion existing between the fixed capital and the circulating capital; and what may be an efficient figure in one industry may be an inefficient one in another. Two concerns may have a total capital employed of £100,000; Firm A, in heavy engineering, has £60,000 of fixed capital and £40,000 of circulating capital; Firm B, in light assembly work, has £20,000 in fixed capital and £80,000 in circulating capital. To turn over the T.C.E. once in a year, the circulating capital of Firm A will have to make 2·5 revolutions, and that of Firm B only 1·25.†

If Firm B were to turn over its circulating capital at the same rate as Firm A, then the latter would need a rate of profit on sales of double that for Firm B in order to achieve the same profit

* *Financial and Operating Ratios in Management*, by Bliss (Ronald Press).

† It is very unlikely that a firm on light assembly work would turn over its circulating capital so slowly, unless abnormal credit terms resulted in a high figure of debtors. This aspect of affairs is dealt with later.

on the total capital employed. For example, if the sales for Firm A were £100,000 those for Firm B would be £200,000. To show a profit of £10,000 on the total capital employed, Firm A would need to have a profit of 10 per cent on its sales as against one of only 5 per cent in the case of Firm B.

The larger the proportion of fixed capital in the total capital employed, the more active will the movement of the circulating capital have to be, in order to carry the inert burden of the money sunk into the means of production. The converse is equally true—if the money is kept liquid, and only a minimum sunk in fixed assets, the easier will it be for the company to do business at narrow profit margins. But—and this is worth bearing in mind—the more vulnerable the company will be to variations in prices, costs and public demand.

Owned and Borrowed Capital

The question of whether the T.C.E. is owned or borrowed is immaterial for this control figure. The company is employing so much capital in its trading, and therefore that capital must turn over, through sales, to an extent sufficient to provide a proper return on that capital. Since it is only through sales that profits accrue, the more often the T.C.E. can be turned over, the more, in sum, will the profit be, and the better the chance for the company to make an adequate payment to the shareholders for the use of their money.

The reader will naturally inquire what a normal figure of turnover would be in various industries. Unfortunately, reliable and up-to-date information on this subject is difficult to obtain, since companies in this country are extremely reluctant to include their figure of annual sales in their published results. Until a research has been set on foot to provide comparative data, any concern desiring to control this aspect of its financial position can only work out its own results and then endeavour to improve them.

Trade cycle variations will influence considerably the turnover of the total capital employed. By normal usage the latter should steadily if slowly increase up to its optimum point, the accretion of profits being more than the deduction due to out-payments. Provided the proportion between fixed and circulating capital is maintained, the turnover of T.C.E. should rise to a certain normal, as the sales increase should be higher than the

capital increase—if the market is there. But many factors go to influence this figure of turnover of T.C.E., and the results, over a series of years, usually show quite a variation. It is, therefore, all the more necessary to watch it and investigate if the figure is found to be lessening. Profits only arise from sales, and sales are only made through the use of the total capital employed. If, therefore, from one cause or another (increasing fixed assets, perhaps) the £ sales are becoming less per £1 of T.C.E., the profit earned on the T.C.E. is likely to be falling off as well. Hence the turnover of total capital employed is the very foundation of financial control, since from it radiate all the investigations needed to watch the movement of the money in the business.

The Incidence of Profit

To obtain a surplus of income over expenditure is the working objective of all industrial and commercial undertakings, and it is an objective which must be attained if continuity of operation is to be assured. Once a profit is being made, however small, the concern can continue to function indefinitely; but where it is working at a loss, sooner or later the money remaining will be too reduced for it to be able to pay its way and it will be forced to cease operations.

Although the profit recorded at the end of the financial year is a single figure, it can be studied from a number of different view-points, of which three take precedence. These are—

(*a*) The profit on the total capital employed.
(*b*) The profit on the sales turnover.
(*c*) The profit on the net worth.

The second is, in a sense, the most important aspect, since it is only through sales that profits accrue at all. The other two are yardsticks of financial efficiency, from which it may be ascertained whether the undertaking is being effectively managed.

These aspects of profit refer to the internal financial control. From the management standpoint there are also profits by product, either shown as final profits or gross marginal profits, and profits by departments, which compare departmental income and expenditure. These do not, however, come within the scope of this volume.

(*a*) The Profit on the Total Capital Employed

When a company is formed, and shares are offered for public subscription, the response will depend upon the opinion of the prospective investor as to the return he will receive on his money. If he invests in Government funds, where security is guaranteed, he will receive a certain fixed interest, so that in view of the element of risk involved in investing in a concern which does not guarantee the safety of his money, he expects a proportionately higher return.

The relation between industrial trading risk and return on shareholders' investment is another subject for future research, and is obviously not susceptible of clear conclusions, since the success or failure of any class of business is directly dependent upon the management. Where one managing director would avoid all risk, and conduct the affairs of his concern with prudence and foresight, another might plunge into the most perilous performances, and bring about complete failure. But it has become a more or less recognized standard that industrial and commercial undertakings, subject to normal trading risks, ought to provide two or three times the return that would be received from money invested in "gilt-edged" securities.

At the start, trading will be carried on solely by means of the shareholders' and creditors' money. But as the years pass additional funds may be borrowed and the creation of reserves will have increased the net worth, which is the shareholders' equity in the business. The total capital employed, therefore, is, where profits are made, bound to grow to a larger sum than the original investment of the shareholders up to the point where the issued capital may form quite a small proportion of the money in the business.

The total capital employed is the sum of the liabilities and the net worth, the latter being made up of the original shareholders' subscriptions plus the accumulated reserves. Hence the shareholders might expect from a well-managed undertaking a minimum return of two or three times the gilt-edged interest rate, whatever that might happen to be, on their equity as represented by the net worth.

But the figure of profit on the total capital employed must be taken before charging interest on borrowed money, or making

any deductions for taxation. The question of whether the capital in use is owned or borrowed has no bearing on its effective commercial utilization, and clearly the profits earned in such utilization must be recorded before taxation, which varies from year to year. For any company, therefore, the minimum of profit on the total capital employed would be the amount necessary to provide, say, 10 per cent on the net worth, plus charges for borrowed capital. The calculation would be made as follows—

P.Q. & CO. LTD.

	£		£
NET WORTH			
Issued Capital	100,000		
General Reserves	45,000		
P. and L. C/f.	3,500		
Total Net Worth	148,500	@ 10%, say	14,850
BORROWED CAPITAL			
5% Debentures	50,000	@ 5% = 2,500	
Bank Overdraft (av.)	20,000	@ 4% = 800	
Director's Loan	5,000	@ 5% = 250	
Other Liabilities	40,000	— = —	
Total Liabilities	115,000		3,550
Minimum Profit on T.C.E. for P.Q. & Co. Ltd.			£18,400

FIG. 17

The reason why the borrowed capital portion of the T.C.E. is not expected to return 10 per cent is that it is not subject to risk, being borrowed against some form of security. But the net worth, belonging to the shareholders, is subject to risk, and the return should be commensurate with that risk.

DIVIDENDS

It does not follow that the shareholder will receive a 10 per cent dividend. The board may have other plans in view for the final profit after taxation. On the other hand, the issued capital may be relatively so small that ample dividends can be paid without contravening the rules of sound finance. Since in a well-managed concern the net worth will always be greater than the issued capital, if 10 per cent can be made on the net worth the prospect of the shareholder receiving a dividend of that amount will be determined by the financial policy of the board, and not by the surplus profits available.

This figure of true profit on total capital employed, though in a sense academic, has a genuine value in that it shows the burden of taxation more clearly than any other of the different recognized forms of profit. The cost of borrowed funds is a charge on the expenses of the business, but taxation is applied after the ascertainment of the profit on the going concern, and only what is left is the reward of the owners of the business. It is necessary to adopt a term for this figure of true profit on total capital employed and the words "operating profits," used by Bliss, appear to be the most suitable. Bliss defines it thus—

> Operating Profits represent the final net profits from operations after caring for all costs and expenses incurred, but before providing for federal taxes, or interest, or any return on the capital used.

This operating profit figure, which when found will prove to be either above or below the minimum for the company, is ascertained on the lines set out in the example of P.Q. & Co. Ltd. just given. If the present profits exceed the minimum figure, the managing director can congratulate himself that his business has passed the basic test of trading efficiency. He himself may be far from satisfied, and consider that he ought to be doing better with the opportunities he sees before him. Moreover, he may need to exceed the basic figure in order to strengthen his financial position. But at any rate his business cannot be criticized as being below minimum in the employment of his shareholders' money. If, on the other hand, his present results are below minimum, he will have to consider how the margin between cost to sell and sale price can be widened, so as to provide the larger sum of profit required.

Finding the Operating Profit

Since the "Final Profit after Adjustment" at the foot of the profit and loss account includes the charges for fixed interest and taxation, to find the operating profit it is necessary to add back what has been deducted. The incidence of taxation is irregular, and it may be paid in instalments, so that it is necessary to keep a moving annual total of this. If the bank interest charge on the overdraft can be obtained monthly, a moving annual total can be kept of that as well; if not, the only course is to take the moving annual average of the bank overdraft figure at the end of the month, and multiply it by the rate of interest charged by the bank.

This will give an approximate cost of the money borrowed from the bank. Fixed interest payments will also be taken as a moving annual total. The sum of these three items, added back to the final profit after adjustment, will give the operating profit, which should be taken as a percentage of the total capital employed a year previously.

This figure of operating profit should be calculated each month in order to ascertain whether the effective use of the money employed is improving, or deteriorating. As Bliss points out—

> The operating profit earned on the total capital used is the real measure of earning power from the operating point of view, which is the point of view of the business executive controlling the operations and transactions. It is for financial management to determine that satisfactory operating profits earned in the conduct of a business are realized by the stockholders to the fullest extent in the form of surplus net profits. That means economical and efficient financial management of the business.

The figure of "Final Profit after Adjustment" gives the managing director the closest view he can get of what money will be left to him for re-employment or distribution after all fixed interest charges and taxation burdens have been met. But it will be seen that between the figure of operating profits and that of the final profit after adjustment there is a gap, the width of which will be determined by the nature of the company's financial structure. Where there is no loan capital and no overdraft, the gap will consist of the taxation only. But where the proportion of loan capital is high and the bank overdraft is as large as the asset security will allow, the gap may be a large one. If, however, the issued capital in the second case is relatively small, the dividends paid to the shareholders may be the same in both cases.

Research and Standards Needed

The figure of two to three times gilt-edged return, say 10 per cent, taken here as a standard for normal commercial undertakings is a nominal one, and research is needed before any recommendations of practical value can be made on the subject. The risk to shareholders' money varies very widely, and a concern exploiting a wasting asset like a mine should show a higher return than a distributor handling a commodity in general use. The Finance Act of 1915 set up a standard of profit allowed in calculating Excess Profits Duty, and Sec. 24 governed application

to a Board of Referees for increases on that standard. A number of trades did apply for increases. A study of these, however, shows that the great majority relate to companies operating in foreign countries, and no recognizable principles seem to govern the allowances that were made to undertakings operating in this country. More recently, the Finance (No. 2) Act of 1939 laid down certain lines upon which Excess Profits Tax would be calculated, but these were based more upon permissible profit limits than upon standards of normal trading. Trading risks obviously depend to a large extent upon world trade conditions, so that the standard return upon total capital employed would have to be linked to some world trade variant, as well as being dependent upon the class of activity, and therefore nature of risk, involved.

(*b*) The Profit on the Sales Turnover

This aspect of profit is the best-recognized one, since it is only through a sale that a profit accrues at all, and most companies strive to make as much profit as they can. It need not necessarily be assumed that this is based upon sheer greed. Profit on sales, being the difference between total cost and market price, represents the outcome of two continuing and strenuous industrial efforts—that of the sales manager to find markets and induce the customers to buy the goods, and that of the production manager to reduce manufacturing cost and produce a better and more attractive article. The final result of those efforts is the margin between what it costs to make and distribute the goods, and what the customer will pay for them. To anyone familiar with the inside atmosphere of industrial undertakings the idea that the management is a gang of Shylocks, whose one aim in life is to sweat the operatives and fleece the consumer, would be amusing were it not tragic. Whatever the shareholders, who own the equity of the business, may feel, those who are managing it usually think of profit principally in the light of a gauge by which the results of their efforts can be measured. From the general management aspect of industrial activity, the margin, surplus, or profit, emerging from the trading operation must always form the final test, when related to the other factors, of whether those operations have been judiciously and successfully carried on or not.

Few concerns start the year's operations without a plan of

some kind. Such a plan usually budgets for a certain sales turnover, split for the various categories of goods sold, and expected to bring back a certain profit on the sales. In practice this profit is more often than not based upon previous results, adjusted up or down in accordance with trade or development prospects.

Take as an example X.Y. & Co. Ltd. (see p. 60), making a forecast, in February, year A, of the operations in year B. The company has a sales M.A.T. at the time of the forecast of £125,432, and a net trading profit M.A.T. of £4865, which gives 3·9 per cent profit on the sales. The total capital employed is £74,512 (February figure), and the net worth was £51,739; the only borrowed capital subject to fixed interest is a small 5 per cent debenture for £4850. There is no overdraft.

The operating profit minimum would therefore be—

	£
10% on Net Worth of £51,739	= 5174
5% on Debenture of £4850	= 242
Hence, O.P. Minimum for X.Y. & Co. Ltd. =	5416

Now the net trading profit M.A.T. in February was £4865, which with the £242 fixed interest charge added back would give an operating profit of £5087. The company, therefore, is operating below minimum.

Surveying his future, the managing director can foresee in the latter portion of his year a drop in sales, owing to certain changes in the requirements of the public and competitors' products replacing his own. He is quite prepared for this and already arranging for developments in other directions, but these will not mature until the middle of the year. He decides, therefore, to aim at a sales turnover for the year of £112,000.

But he is not satisfied with his surplus (even if it be above standard), since he has certain improvements in view which he is anxious to finance out of profits. He decides, after a careful review of the different product-lines which he has already set out to arrive at his sales target of £112,000, to aim at a net trading profit of £5650, or about 5 per cent on the sales, instead of 3·9 per cent. He knows that he has one advantage, at any rate—the materials required for his new developments are relatively low-priced.

Now if his sales M.A.T. was £125,432, and his net trading profit £4865, his total expenses must have been £120,567. If he

is going to make £5650 profit on £112,000 turnover, his total expenses will have to come down to £106,350 (neglecting sundry income in both cases.) He faces, therefore, the task of reducing his total expenditure for year B from £120,567 to £106,350—i.e. by £14,217, or nearly 12 per cent.

Looking up his expenditure detail sheet, he finds that the £120,567 is made up as follows—

	£
Direct Material	84,623
Direct Labour	9,901
Factory Oncost	21,385
Factory Expense	115,909
Company Overheads	4,116
Exc. Trading Expenses	242
Fixed Charges	300
Total Expenditure	£120,567

FIG. 18

It is obviously in the factory where he will have to make his expenditure reduction. He sets his buyer the target of co-operating with the production staff to reduce the cost of the direct material by £12,000, and his works manager that of reducing the direct labour by £1000 and the factory oncost by £1217. If this can be done, his profit between the projected sales of £112,000 and the total expenditure of £106,350 will be the £5650 at which he is aiming.

The stage is now set, and as the industrial year moves on each actor knows the part he has to play. The managing director can watch the progress towards the goal he has marked out, and take what steps may be necessary if anything seems to be going astray.

PLANNED MANAGEMENT

This example has been given to show how definitely the profit on the sales turnover lies at the back of all planned management in commerce or industry. All other profit relations are yardsticks of one kind or another used to measure whether the management of the concern is satisfactory or not. But the profit on sales is the vital factor upon which the whole going concern depends, and if that cannot be made adequate, the company will not prosper.

What that profit should normally be depends on a number of factors. The nature of the product, customer demand, and

competition are the three main ones, and the incidence of profits will vary as these factors operate. A company may market a new product, stimulate demand, and with little competition against it obtain a profit of, say, 20 per cent. This soon gets known, competitors grow up, and the profit may fall to 5 per cent or less as prices have to be reduced. If competition becomes excessive, profits may almost or entirely disappear, and cases are well known where in certain industries all the competing concerns were making a loss through price-cutting—a state of affairs of temporary benefit to the customers, but of permanent harm to industry and customers alike.

Profits on sales are usually much lower than the public imagine. Roy A. Foulke, Vice-President of Dun and Bradstreet Inc., in his pamphlet *Expansion from Retained Earnings*, 1940-1944, gives data from 72 different lines of business, manufacturing, wholesale, and retail, covering in all 5457 concerns. The median figures of "Net Profit on Net Sales" can be summarized thus—

Type of Business	Manufacturing	Wholesale	Retail	Total
Lines of Business Activity	36	24	12	72
No. of Concerns	2,577	1,820	1,060	5,457
Net Profits on Net Sales 1944— (Median results)				
0·00 to 0·99%	—	1	—	1
1·00 to 1·99%	1	5	1	7
2·00 to 2·99%	8	6	2	16
3·00 to 3·99%	18	7	3	28
4·00 to 4·99%	7	1	3	11
5·00 to 5·99%	1	1	1	3
6% and above	1	3	2	6
Total	36	24	12	72

FIG. 19

Comparing these figures with the table of "Surplus Net Profits earned on Sales" in Bliss, based on the nine years from 1913 to 1921, it would appear that at that time the profit earned was two to three times that obtained in 1944.

It will probably come as a surprise to most readers to see that out of thirty-six manufacturing lines, each in a different industry, not more than one quarter of the results show profits of 4 per cent and upwards on the sales. This does not, of course, mean that

the profit on the total capital employed was below standard, or that the concerns did not pay good dividends. As the reader appreciates, it all depends upon the speed of the circulating capital.

(c) The Profit on the Net Worth

This is really an investors' criterion, and has little bearing upon the effective trading of the going concern. Since the net worth is made up of the issued capital, the general reserves and the balance of the profit and loss account, the borrowed capital (including all provisions) is not recorded in it. If, therefore, the total capital employed is largely made up from borrowed capital it is possible, and indeed probable, that the profit made on the total capital employed will provide a very much higher return on the net worth. This is largely the cause of high dividend payments, since, dividends being payable only on issued share capital, if the proportion of share capital to total capital employed is small, dividends can be large. For this reason the assessment of working results from the figure of profit on net worth is only of value to an investor, either actual or potential, since it enables him to ascertain the likelihood of dividends being maintained. In so far, therefore, as the maintenance of dividends is a part of the financial management of a company, this factor may require watching, but it is of secondary and not primary importance.

Reverting to X.Y. & Co. Ltd., the net worth in March, year A, was £52,107. Profit on the net worth is calculated on the figure of twelve months back, so that if the profit in year B is to be £5650 before deducting taxation it would show 10·8 per cent on the net worth. Since only £30,000 shares have been issued and the rest of the net worth is "ploughed-in" profit, a dividend of 10 per cent could be paid to the shareholders, amounting to £3000, and the remainder could be taken into the General Reserve or carried forward in the Profit and Loss Balance. (This is under the assumption that no other special appropriations of profit were made.)

As to a standard of what the profit on the net worth of a business should be, surely the answer is that it should be such as will allow for the payment of dividends on the share capital of two to three times the amount currently paid on Government securities (or such amount as may represent a fair return on the

risk involved) and, at the same time, provide adequate reserves to be reinvested in the business and so increase the shareholders' equity. In 1938 the Chairman of Tube Investments Ltd. suggested that "a sound rule for a manufacturing business is that it is not safe to divide more than two-thirds of the profits earned," the remaining third, at least, being retained in the business.*

Through this reinvestment the proportion of owned to borrowed capital should increase and the business become financially sounder. The portion of the net worth represented by the reserves and the profit and loss balance is, admittedly, the property of the shareholders and has accrued through the use of their money. But as long as they receive dividends proportionate to the risk they took in making the original investment, they cannot reasonably expect more, however their net worth property may have grown. The practice of paying out large dividends and neglecting the creation of reserves has been responsible in the past for many concerns getting into very bad condition, with obsolete machines and equipment, old and inefficient buildings and little or no financial stability at the back of them. So that when money was needed for reorganization, it was just not there—due, simply, to unsound financial management.

Summary

Summarizing, therefore—

1. The turnover of total capital employed is found by dividing the sales turnover for twelve months by the figure at the foot of the assets side of the balance-sheet (less fictitious assets).

The rise or fall of this figure is a measure of the activity of the money in the business.

Rise is favourable; fall is unfavourable.

2. The three most important measures of profit are the profit on total capital employed, the profit on sales turnover and the profit on net worth.

3. The profit on total capital employed is found by dividing the twelve months' operating profit by the total capital employed at the beginning of the period, and is a measure of the commercial success of the management.

* "Amongst the Balance Sheets."

4. The profit on sales is found by dividing the twelve months' net trading profit by the twelve months' sales turnover, and is a measure of the commercial stability of the business.

5. The profit on net worth is found by dividing the twelve months' net profit on the going concern by the net worth at the beginning of the period, and is a measure of the existing value of the shareholders' capital investment.

In all three a rise is favourable, a fall unfavourable.

CHAPTER VIII

FIXED CAPITAL INVESTMENT

ONCE the general movement of the total capital employed has been considered, we can pass on to a survey of how that movement is influenced by the two components—the fixed capital and the circulating capital.

The internal financial control of the movement of the fixed capital resolves itself into a constant watch that the money invested in the means of production is adequate but not excessive, properly balanced, and represented by assets which genuinely work for their keep. Control here is of a long-term nature, and will be dictated by the requirements of the trading in which the circulating capital is used. Of necessity there is a close connection between the two—the trading will be hampered if there is not sufficient equipment to produce the goods, and the means of production will slowly become inefficient if the trading is not profitable enough to provide cash to replace obsolete or worn-out equipment. From the other angle, the trading will also be hampered if there is too much equipment, or equipment of too expensive a nature, to allow the goods to be produced at a normal cost. Fixed and circulating capital, therefore, have a direct interdependence, and must be brought to a nice balance if the most effective use of the total capital employed is to be achieved.

Since the fixed capital does no trading and, therefore, itself making no direct profit, has to be carried by the circulating capital, the first point that emerges is that in any trading concern, the smaller the proportion of the fixed capital in the total, the better for the profit-earning prospects of the business. On the other hand, the less "solid" will the business be, and the more difficult it may be to obtain temporary trading accommodation. If a man starts a business with a capital of £10,000 and puts £9000 into buildings and equipment, leaving only £1000 for circulating capital wherewith to trade, he will soon have to obtain more money—and if he attempts to borrow it, he can offer as security for the loan the £9000 of fixed assets he possesses. But if he begins by renting a factory, hiring machinery and only expending £1000 on buildings and equipment, retaining £9000 for

trading purposes, he will probably not require more money for some time, if ever, since additional funds will accrue through profits and so permit the normal extension of the business. Should he come to need more circulating capital, however, he will have no assets of importance to offer as security for the loan, though he may be able to show a number of years' satisfactory trading results as evidence of his profit-earning capacity.

In normal trading the latter course is clearly the better one, though there are many industries where a product cannot be put on the market at all without expensive equipment being installed at the start. But as a general axiom it can be stated that the less money sunk in fixed assets the better.

As we have seen, the Fixed Assets are divided into—

(*a*) Tangible Assets
  Fixed Property Investment
  Other
(*b*) Intangible Assets
(*c*) Fictitious Assets.

(*a*) Tangible Assets

In this class are placed all assets which do not come under the intangible or fictitious classes, and are also not current assets forming part of the circulating capital. Owing to the omnibus nature of the category, it is important that the investment in the actual means of production should be clearly shown separately from any other items which, though they may be genuine and valuable, have nothing to do with that production. The fixed property investment consists of land, buildings, plant, machinery, equipment, loose tools, jigs, patterns, drawings, office furniture, fixtures and fittings, as well as the stocks of coal, coke, oil and other consumable stores "not held for the purpose of re-sale" and required for the running of the business.

The valuation of the fixed property assets in the balance-sheet is usually carried out in one of two ways. The first maintains the original cost value, plus additions, and makes a provision on the other side, under the liabilities, for the depreciation. (This should be deducted from the stated assets value when the true value of the tangible assets is required.) The second records the depreciated value at the end of the previous financial year, adds the value of the new assets acquired during the year, and deducts the annual

depreciation, thus arriving at the assessed value of the tangible assets at the end of the current year. The former method has the advantage of providing a continuous record of the cash expended in tangible assets, but is apt to be more misleading to the unwary than the latter, as to the up-to-date value of those assets.

In theory, concerns operating within the same class of industry should be comparable in regard to fixed property asset proportion, and it should be possible to ascertain within practical limits what a normal should be for that industry. But, as Gilman points out, this could only be done if the asset valuation base were the same in all cases, which it is not.

> It is theoretically conceivable that two corporations could have identical plants. And yet their balance-sheet values might be quite different due to any of the following causes—
>
> (1) Difference in construction costs due to geographical location.
>
> (2) Differences in construction costs due to variations in material and wage costs caused by business conditions.
>
> (3) Differences in construction costs depending upon whether work was done by fixed contract, by cost plus contract, or by the company's own workmen.
>
> (4) Differences in depreciation policies.
>
> (5) Differences caused by revaluation through appraisal, etc.
>
> (6) Differences in methods of financing purchase.
>
> These are not the only causes which might result in differences between the book values of these two plants, but the list is sufficient to make it clear that such dollar values are not necessarily representative of physical facts.*

Moreover, industrial undertakings, even in the same class of industry, seldom are precisely comparable as to product, and the type of product, will largely determine the fixed property investment. Comparison would therefore only be of value where the investigator could make certain that the type of product was exactly similar—which would narrow down the field almost to vanishing point. A study of the data available in works of reference seems to show that such comparative figures are of little real significance, except broadly to confirm what is an obvious fact—that where the product requires extensive equipment to produce it, the fixed property investment will be larger than where the product is easily produced or merely assembled or handled for re-sale.

* *Analysing Financial Statements*, p. 210 (Ronald Press).

Dangers of Fixed Asset Expansion

The temptation to put more and more money into the fixed property assets is a serious one, since it arises mostly in times of good trade. The company is overwhelmed with orders, the factory cannot turn out the goods fast enough, and there appears to be every justification for extensions to buildings and additions to machinery and equipment. New processes are adopted, old plant is scrapped and replaced, and the value of the fixed property investment increases steadily. Usually this expenditure is financed by borrowing money on which fixed interest will have to be paid. Whilst trade expands all goes well, but when the trading limit is reached, and the sales begin to fall, the company is faced with having to bear greatly increased charges which could be met whilst the value of sales was high, but which become a menace to profits below a certain level of turnover. This often results in an increased sales effort, incurring further expense in the effort to maintain or increase the expansion achieved. So the burden of cost rises, until the company is often working at full capacity, but making less profit than it was before the expansion began. Should sales recede seriously, should the judgment of the managing director prove faulty, or any part of the organization unequal to its task, the firm may be left with an excessive proportion of its total capital employed in the fixed property assets, placing a burden of profit-earning upon the circulating capital which the latter is unable to carry.

By virtue of its inflexibility, an excessive proportion of fixed property assets is a serious danger in a going concern. It is not susceptible of quick cure, and often indeed imposes a state of affairs that is incurable except by action which is bound to entail loss to the shareholders. Over-expansion of buildings, plant and equipment can only be remedied in two ways: either by the re-development of the sales activity, perhaps in new directions, so that the buildings and plant can once more be fully employed; or by the sale of the surplus equipment, so that it can be reduced to normal proportions once again. The first alternative is possible, but not probable; the second disagreeable, but practical. Some of the share capital may have to be written down, but the cash received from the sale of the assets will provide additional circulating capital, and the shareholders may in the end receive

more money in dividends on their reduced shares than they did on their original ones, if the reconstruction enables the company to go ahead once more.

More often than not the fixed property investment will constitute the whole of the tangible assets of a company. In the balance-sheets of the larger concerns, however, there will be found items such as subsidiary companies, and funds of one kind or another. Since these are neither intangible nor fictitious, and also do not form part of the current assets or circulating capital, they must be brought in as "other" tangible assets. The circumstances affecting such investments belong more to external than internal industrial finance, and it is not proposed, therefore, to deal with them at length here.

(*b*) Intangible Assets

The principal intangible asset met with in balance-sheets is goodwill. Volumes have been written on the subject of commercial goodwill and its value.

> Goodwill in its commercial meaning is the transferable right which grows out of all kinds of past effort in seeking profit, increase of value or other advantage. The term "commercial goodwill" covers the whole field of rights growing out of all past effort of this nature. These rights are legally protected under various names, either by statute law or by common law, for the use and benefit of the owner. Commercial goodwill may thus include any and all such property as business connections associated with names, persons and places of business, trade-marks, patents and designs, copyrights, and the right to exercise monopolies. It is important to observe that these rights exist altogether apart from the question of whether or not they have any present exchangeable value.*

Where goodwill appears in a balance-sheet, it almost always represents the difference between the balance-sheet values of the company's assets at the time of the transfer to new ownership, and the sum paid by the new owners in the takeover. It might be called a profit-earning factor, and in certain classes of widely advertised goods the goodwill has probably more to do with success than the tangible assets. But the fact remains that money sunk in goodwill, unlike the money spent on buildings and machinery, has been expended on an intangible working tool, probably valueless if the company should cease trading, possibly decreasing in value rapidly and unavoidably if the goods

* *Balance Sheet Values*, by P. D. Leake (Gee & Co.).

marketed are challenged by some new product. Yet however much the trading value of the goodwill depreciates, the capital issued to shareholders to pay for the original goodwill value remains, and a reasonable return on it will have to be provided. So the company becomes over-capitalized, with all the working drawbacks which such a condition brings with it.

> Thus there can be no doubt that the over-capitalization of industry, caused by the common practice of capitalizing, in the form of fixed shares, an amount representing the computed value of goodwill, must often operate later on in the history of companies to cause such high levels of prices for the products as to be destructive to trade, just as would be caused, for instance, by the systematic overstaffing of industry. The practice must also frequently lead to the premature failure of an undertaking, which, if its fixed capital had been rigidly confined, in amount, to the value of actually existing things, . . . might have continued to be profitably carried on.*

It would appear, therefore, that sound financial practice in normal trading undertakings calls for the writing off of any amount standing in the balance-sheet as goodwill as soon as it can conveniently be done. This implies the replacement of the goodwill by other assets of a more tangible nature, by increasing the liquid or working assets, or purchasing fixed assets out of profits.

Hargreaves Parkinson, in *Scientific Investment*, recommends that goodwill, instead of being written completely off, should be left at £1, "so that financial writers will comment approvingly on it every year."

(*c*) Fictitious Assets

The fictitious assets, being, as their name implies, not assets at all but only balancing book-entries, require no comment other than that they should be written off the balance-sheet as soon as possible.

Fixed Capital Control

It was suggested at the start of this chapter that the control of the fixed capital resolved itself into a constant watch to see that it is—

(*a*) Adequate but not excessive.
(*b*) Properly balanced.
(*c*) Represented by assets which genuinely work for their keep.

* *Balance Sheet Values*, by P. D. Leake (Gee & Co.).

Of these (*a*) and (*b*) are not susceptible of comparison against standards since they depend upon the circumstances of the individual business. Only the prudence, skill, and insight of the board can make sure that these two conditions are being fulfilled.

But it is possible to watch whether the fixed capital is working for its keep. We have already seen that the turnover of the total capital employed and the profit accruing from that turnover are measures of the effective management of the business. Since that total capital is composed of the fixed and the circulating capital, the turnover of the fixed capital, and the relation of the operating profit to it, should be the measure of the effective management of the fixed capital side of the business.

If the fixed capital produces the goods, and the circulating capital trades with them, which makes the profit for the going concern? This is another aspect of the old argument, heard so frequently across the lunch-table of the firm, as to whether it is more important to produce than to sell. The answer is that both are of equal importance, since each is completely dependent upon the other, and success or failure in either will reflect itself in the working of its *alter ego*.

Since there is only one profit, that which comes from the sales to the customers, and only one turnover—those sales—all internal ratios of turnover or profit must be based on them. The fixed capital investment, therefore, divided into the sales turnover will give a certain figure; if that figure rises, it implies that more turnover is being done with the same fixed assets, or the same turnover with reduced fixed assets—both of which are favourable indications. The same holds good for the figure of profit.

If the figure falls, then either less turnover is being done with the same fixed assets, or the same turnover with more fixed assets—both of which are unfavourable indications, implying that the fixed assets are not—whatever the reason may be—working so effectively for their keep as they were.

But the total fixed assets may increase, without any increase in the fixed property investment. Since the latter exists in order to provide the goods used in the trading, it is clear that the relation between the sales turnover achieved in trading and the sum invested in the fixed property portion of the tangible assets will show whether the earning-power of that investment is increasing or decreasing.

Like all ratios dependent upon two variables, the movement will not show which factor is responsible for the change. But since the objective of the managing director is to ensure that his fixed property investment is maintaining the return which he considers it ought to give, if the ratio moves the wrong way it will at least draw his attention to that fact.

Physical Unit Measurement

The fixed property is there to provide output. Whether that output can be sold at a profit is another question altogether—one with which the plant and equipment is not primarily concerned. Wherever possible, therefore, the output should be measured in physical units—tons, cubic yards, gallons, feet, or items—and not in money value. A colliery output is measured in tons as the basic unit, and by dividing the vendable tons produced by the value of the fixed property it is possible to watch the increase or decrease of the tons per £1 of fixed property. Selling values may alter, and though the £ output value per £1 fixed property will therefore rise or fall, that change does not come about from a more efficient use of the fixed property investment, but on account of the change in the market value of the output.

Unfortunately, the great majority of industrial undertakings cannot measure their outputs in units, and the only figure available is the sales turnover resulting from the output. Now when a firm markets a certain range of products—even if made up of goods differing quite widely from each other—the law of averages seems to maintain a sufficiently close regularity month by month for their sales values to be of use in control work. If sales prices rise drastically this would have to be taken into account in considering the control results. But such drastic rises are unusual, and the sales turnover of a company, if watched monthly, seems to keep very regular in total value under normal trading circumstances.

Each month, therefore, the output in units, or the sales value of the production (i.e. the sales turnover adjusted for stock variation), should be divided by the value of the fixed property investment and improvement will be shown by increasing results.

Fixed Property Expenses

Bliss recommends as additional control ratios the relation of fixed property expenses to investment and to sales.

Fixed property expenses bear definite relationships to the fixed property investment and to the volume of business done, which afford valuable measures of financial and operating economy. They are, in fact, more than measures of efficiency and economy; they are measures of business policies. Favourable ratios of property expenses to the volume of business done afford competitive advantages, and on the other hand, unfavourable ratios impose competitive disadvantages which are quite permanent in character and arise out of the policies controlling the expansion of fixed property investments.

Fixed property expenses should embrace all costs arising out of the ownership and use of fixed investment in plant and equipment, including depreciation, insurance, taxes, repairs, and, for many purposes, interest on the investment. These expenses are practically fixed costs which must be carried by operations, and are affected by fluctuations in the volume of business done. . . . For any individual property these fixed expenses are likely to remain quite constant from year to year, of course allowing for increase in the cost of repairs, and will therefore bear quite a fixed relationship to the amount of capital tied up in fixed property investments.*

To provide these ratios would require a split of the factory oncosts, company overheads, and fixed charges into those arising from the three subdivisions of asset investment previously indicated, i.e. current assets, fixed property investment, and all other assets. This would bring into prominence the expense due to the fixed property investment, which has to be carried, along with any expenses arising from "any other assets," by the circulating capital (or current assets). Any additions to the fixed property investment would inevitably entail an addition to the fixed property expenses.

The cost of the fixed property expenses is recovered from the customer by means of the overhead factor in the sales price. Hence volume of sales is all-important; if sales are not adequate, recovery will not meet actual charges. The greater the investment in fixed property, the more the fixed property expense will be, and the higher will be the figure of sales volume below which loss begins. Hence the company with high fixed capital investment is handicapped in relation to a competitor with lower fixed capital investment. For this reason the managing director would be well advised to take out at least each quarter the percentage of fixed property expenses to investment, and fixed property expenses to sales turnover.

The problems connected with the control of the circulating capital movement, as will be seen in the next chapter, are of a

* *Financial and Operating Ratios in Management*, p. 112, by Bliss (Ronald Press).

totally different nature. But they are much more susceptible to immediate action than those which arise in connection with the fixed capital. With the circulating capital a policy which as time passes proves to be ill-judged can be reversed, or circumstances so mastered that it is, after all, successful. But an error of judgment in the fixed capital policy may saddle the concern, for the remainder of its existence, with an immovable burden which will hamper its trading, restrict its development, and may even cause its final collapse. Fixed capital control is based on foresight, circulating capital control on insight. Both are vital to the success of a business, but whereas the penalty of error in the latter is hard labour for some years, in the case of the former it is usually a life sentence.

Summary

The recommendations put forward in this chapter may be summarized as follows —

1. The proportion of fixed capital in the total capital employed should be kept as low as possible.
2. Intangible assets, where they exist, should be written down to £1 as soon as possible.
3. Fictitious assets, where they exist, should be written right off as soon as possible.
4. For control purposes, the following ratios are recommended—
   (*a*) The ratio of sales turnover to total fixed assets.
   (*b*) The ratio of sales turnover to fixed property investment.
   (*c*) The ratio of fixed property expenses to investment.
   (*d*) The ratio of fixed property expenses to sales turnover.

CHAPTER IX

CIRCULATING CAPITAL FLOW-SPEED

THE fixed capital, as we have seen, has to be carried by the circulating capital, which is the active partner of the two. Reference once again to Fig. 2 will refresh the reader's memory as to how this activity is shown. It is always in movement, passing from one form to another, and from one sort of investment to the next in the circle, yet all the time that movement arises from, and should therefore be dictated by, the policy of the management.

Industrialists tend to get into the habit of assuming that the circulation of the liquid and working assets is an automatic affair, and if things go wrong it must be due to external circumstances beyond their own control. A little thought will show the fallacy of that, for the profit aimed at must be based upon some expected sales turnover, which is again based upon some expected production. And that production calls for certain expenditure in materials, wages, and charges which sets the pace for the circulating capital movement, the normal debtor-period being known also. The remainder of the financial control should obviously be built up around these central facts, and there is under normal conditions no stage at which anything unexpected can intervene.

Since a company carries on its trading by means of its circulating capital, the more often that capital can be "turned over" —i.e. the more circuits it can complete in a year—the more profitable should the trading be. The total of the circulating capital being found in the current assets, and the record of how that capital has been successful in creating goods or services being found in the sales turnover, the annual speed of the circulating capital flow at any month in the year can be assessed quite simply by dividing the current assets total for the month into the M.A.T. of the sales turnover for the month.

EXAMPLE—

M.A.T. Sales Turnover = £191,047
Current Assets = £78,108

$$\text{Circulation Flow-speed} = \frac{191{,}047}{78{,}108} = 2.45 \text{ revolutions per annum}$$

= 149.3 sales days

The Speed of Circulation

The flow-speed of the circulating capital has not in the past received the attention it would seem to deserve. The tendency has been to watch sales and profits, pushing the former in order to increase the latter. This may be an enterprising commercial policy, but if it is maintained without a watch on the circulating capital speed, it may result in an undue increase in borrowed capital (bank-overdraft or creditor-money) and so give rise to over-trading.

Since the current assets normally consist of cash, debtors, finished goods, work-in-progress, and material stock, it will be seen that if the cash can be turned into material, wages or expenses without so much delay; the debtors induced to pay more quickly; the finished goods sold off as far as possible to customers; the work-in-progress diminished by better organization in the factory; and the material stock reduced by use, this will have a double effect in improving the flow-speed, as the sales turnover will increase, and the current assets decrease. This process cannot, naturally, be continued indefinitely, as every type of concern has an optimum current assets structure in relation to the sales turnover, depending upon the markets available, the lay-out of the factory, the nature of the product, and the normal commercial payment terms for debtors and creditors existing in that class of business. Every business, therefore, should know its own normals for cash, debtors, finished goods stock, work-in-progress, and materials stocks, expressed most conveniently in sales days.

Then, as the M.A.T. of the sales turnover rises and falls, it will be possible to check whether the flow-speed is increasing, decreasing, or remaining constant in terms of sales days.

The question is sometimes asked whether it would not be more effective to use the number of working days in the year as the basis of measurement rather than the number of calendar days. There appear to be two reasons why the 365-day basis is preferable; firstly, the number of working days in a year varies widely in different concerns (between 245 and 280), and therefore the "working-day" basis would not be a comparable one; and, secondly, the calendar day is the basis of commercial transactions such as bills and promises to pay. "Payment in thirty days" as

commercial terms of sale implies thirty calendar days, and the circulating capital is subject to these calendar day terms in the debtor portion of the circuit. It appears best, therefore, to use the 365-calendar-day basis for checking the circulating movement throughout.

Circulating Capital Investment

If, in the simple example given at the beginning of this chapter, the circulating flow-speed of the total current assets employed was 2·45 revolutions per annum, or 149·3 sales days per revolution, it is clear that if the total of current assets be broken up into its component items it will be easy to see how many sales days are spent in each section. The example is an actual one from the records of a firm manufacturing light electrical equipment; the analysis of the current assets was as follows, and the figures for the following year have been added for comparison.

FIRM X

Year	A		B	
Item	£	Sales Days	£	Sales Days
Cash	8,943	17·1	10,322	13·4
Debtors	46,673	89·4	59,078	76·7
Finished Goods	3,211	5·9	5,637	7·3
Work-in-Progress	11,648	22·3	26,730	34·7
Materials	7,633	14·6	10,784	14·0
Other Current Assets	—	—	—	—
Total Circulating Capital	78,108	149·3	112,551	146·1
Index	100	—	144	—
Sales Turnover	191,047	—	277,875	—
Revs. per annum	2·45	149·3	2·49	146·1
Sales Turnover Index	100	—	145	—

Fig. 20

It will be seen that in year B the company increased its sales turnover by 45 per cent and its circulating capital by 44 per cent, but the circulating speed remained almost identical, the increased lag in the greater work-in-progress and finished goods being counter-balanced by a lessening of the time the company's money spent outside the circuit in the possession of the debtors.

The following is another example of actual figures, taken from a small non-ferrous foundry, expanding rapidly under war conditions—

FIRM Y

Year	A		B		C	
Item	£	Sales Days	£	Sales Days	£	Sales Days
Cash	18	·2	101	·6	409	1·7
Debtors	5,056	63·3	10,137	61·1	15,744	67·4
Finished Goods	405	5·1	687	4·1	631	2·7
Work-in-Progress	587	7·3	1,236	7·5	1,535	6·6
Materials	455	5·7	963	5·8	782	3·4
Other Current Assets	—	—	—	—	—	—
Total Circulating Capital	6,521	81·6	13,124	79·1	19,101	81·8
Index	100	—	201	—	293	—
Sales Turnover	29,194	—	60,095	—	85,314	—
Revs. per annum	4·47	81·6	4·61	79·1	4·46	81·8
Sales Turnover Index	100	—	206	—	292	—

FIG. 21

In this little concern the sales rose in year C to nearly three times what they were in year A. The staff worked well together as a team and understood the importance of good organization. Material supplies were carefully controlled, the internal movement of the work-in-progress laid out for rapid flow, and dispatching arrangements for finished goods organized to avoid delays. The finance was in very capable hands, and as a result of all this the flow-speed of the circulating capital remained practically unaltered in spite of the much-increased volume. The somewhat lengthy period in debtors was due to the fact that practically the whole of the company's output went to the Government and called at that time for somewhat protracted payment formalities.

SETTING THE NORMAL

The normal circulating capital flow-speed will vary with each concern, and each month's results should be checked against that normal. In businesses where the process is short, materials easily obtainable, and stocks of finished goods not required except in

day-to-day quantities, the circulating speed will be high. Where the process is a long one, where materials have to be ordered specially from the manufacturers, and a range of finished goods must be kept in stock to meet the sales department requirements, the circulation speed will be low. Whether high or low, a normal should be established in each section, and then, as the figures come through month by month, it should be the objective of the management to keep reducing the lag to its lowest possible point.

The normal would be estimated somewhat on the following lines, in a company making, say, small machine tools on batch production lines, with a sales turnover M.A.T. of about £80,000 or £220 per sales day—

1. CASH

Assuming that the company is working on an overdraft the cash would be a nominal figure, say, 1 sales day.

2. DEBTORS

The company trades on monthly accounts, so that debtors should be assumed as 45 days.*

3. FINISHED GOODS

Usually the batches are completed before all the machines are sold, and, therefore, there is always a stock of finished machines on hand worth about £6500; say, 30 sales days.

4. WORK-IN-PROGRESS

In batch production this is liable to be rather high, and the machining, assembling, and testing of the batches take, say, approximately two months. The work-in-progress should be about £12,000; say, 55 sales days.

5. MATERIALS

These would be somewhat varied in nature, mostly steel and brass bar, ferrous and non-ferrous castings. Some small malleable castings have to be obtained up to a year's supply at a time from the makers. Normal stocks, about £4500; say, 20 sales days.

* Although "monthly accounts" should indicate about 30 sales days of debtors, prompt payment by customers is by no means the invariable rule in trading. In addition, there are usually a number of invoices under discussion for discounts, special allowances, etc., so that experience has shown that in monthly account trading 45 sales days of debtors is about a normal figure.

6. Other Current Assets

In this case, none.

Summary—

Estimate of Normal Circulating Capital Speed

	Sales Days	£
Cash	1 day	220
Debtors	45 days	9,900
Finished Goods	30 ,,	6,600
Work-in-Progress	55 ,,	12,100
Materials	20 ,,	4,400
	151 ,, or 2·42 revs. per annum.	33,220

Fig. 22

Once the normal has been worked out, the next step would be to take the actual figures at the end of the next month under review, and compare them with the normal, thus—

CIRCULATING CAPITAL FLOW-SPEED

Comparison Between Normal and Actual @ x/x/x

Item	Normal		Actual	
	Sales Days	£	Sales Days	£
Cash	1	220	1·9	433
Debtors	45	9,900	71·9	16,393
Finished Goods	30	6,600	37·6	8,573
Work-in-Progress	55	12,100	62·7	14,296
Materials	20	4,400	20·9	4,765
Other Current Assets	—	—	—	—
Total	151	33,220	195·0	44,460
Sales Turnover M.A.T.	—	80,300	—	83,220
Per Sales Day	—	220	—	228
Revs. per annum	2·42	—	1·87	—

Fig. 23

It will often be found, on the first occasion that this measurement is made, that the actual periods spent in one or two of the sections are considerably above the target set. In the above example, cash is ·9 of a sales day too high, debtors 26·9 sales days, finished goods 7·6 sales days, work-in-progress 7·7 sales days,

and materials ·9 of a sales day. At a turnover of £83,220, each sales day brings in £228; if the circulating speed can be increased from 195 days per rev. to 151 days per rev., or by 44 days, this could provide £228 × 44, or £10,032 more turnover in the year. If the firm is making 5 per cent profit on its sales, this would mean another £500 profit in the year's trading.

The above reasoning is naturally based on the supposition that the market can absorb the extra £10,000 turnover. If not, efforts to decrease the lag in the various sections mentioned would result in that lag being transferred to the cash section. This would, in fact, be an advantage, as it would provide additional liquid resources for any purpose, apart from making it clear to the managing director that part of his circulating capital was doing no work.

Monthly Comparisons

It should be remembered that in comparing the current monthly results with the normal, the £ sums will vary with the sales M.A.T., though the sales days may not change. It is from the sales days, not the money, that the variation in the movement should be watched. When the sales day normals have been set, it is a good plan to make up a simple chart from which the £ sums can be read at any sales M.A.T. figure. The monthly return could then show normal £ sums as well as sales days, with a column indicating the extent to which the current month's figures were above or below normal, on the following lines—

CIRCULATING CAPITAL FLOW-SPEED

AS AT X/X/X

Circulating Capital, £44,460; Sales M.A.T. £83,220; Sales Day = £228

Item	Sales Days				£ Sum			
	Current	Normal	Above Normal	Below Normal	Current	Normal	Above Normal	Below Normal
Cash	1·9	1	·9	—	433	228	205	—
Debtors	71·9	45	26·9	—	16,393	10,260	6,133	—
Finished Goods	37·6	30	7·6	—	8,573	6,840	1,733	—
Work-in-Progress	62·7	55	7·7	—	14,296	12,540	1,756	—
Materials	20·9	20	·9	—	4,765	4,560	205	—
Other C. A.	—	—	—	—	—	—	—	—
Total	195·0	151	44·0	—	44,460	34,428	10,032	—
(Deduct)	151·0	—	—	—	34,428	—	—	—
(Check)	44·0	—	—	—	10,032	—	—	—

Fig. 24

The approach to management control is largely dependent upon the personal point of view of the controller, and there are some people to whom money sums mean more than a unit like a sales day. To such, the fact that £6133 more than normal is being withheld by debtors from its return to the fold is more striking than the statement that the debtors are 26·9 days in excess of normal. It all depends upon the point of view.

The reader will appreciate that this method of measuring the speed of the circulating capital provides the key to the most important part of the internal financial control. The normals in each section can be varied at the managing director's discretion, to suit his policy, yet throughout control can be maintained in terms of sales days. The sales are the vital factor in any business, the barometer of its commercial activity; the sales day—the sales for a period of twelve months, divided by 365—is a convenient and logical unit, which conveys to the reader's mind an impression of time well suited to the purpose of control.

Moreover, it fulfils all the requirements of a method of measurement, since it responds automatically to the change of increasing or decreasing trade. When the turnover is rising, the sales days will begin to increase first in the materials, then in the work-in-progress, and then in the finished goods. As the increased production passes out through the sales, the turnover will continue to rise and the debtors will probably rise slightly. If the expansion continues, the other sections will continue to rise, ahead of the rising turnover trend, until the expansion stops, and trading stabilizes itself on the higher level. All sections will then begin to fall again, until they should regain the normal set at the start. If they do not, it is proof that some new factor has been introduced—perhaps excessive work-in-progress due to overcrowded shops, excessive finished goods due to too many varieties, or it may be excessive debtors due to special credit terms.

With decreasing trade the measurement is equally effective, since the falling turnover trend causes the sections to record rising sales days, even if the sums involved do not increase.

Monthly and Annual Results

It has been pointed out that if the circulating capital recorded at the end of the month be divided into the moving annual total of the sales, the result, though correct for the year ending that

month, may be misleading if sales are steadily rising or falling, owing to the slow movement of the M.A.T. This is true, and for this reason it is as well to record the current monthly sales day figure as well as that based on the M.A.T. The former is found by dividing the current sales turnover by the calendar days in the current month, and the extent to which it works out above or below the M.A.T. sales day will indicate the current position of affairs, compared to the long-term trend.

An Alternative Method

In the course of the research into methods of control over the movement of the circulating capital, an alternative has been suggested to the procedure just described. This is to watch the relation between the circulating capital and the sales turnover, as a straight percentage, thus avoiding the sales day calculation.

By this method, Fig. 20 would read as follows—

FIRM X

Year	A		B	
Item	£	Percentage of Sales Turnover	£	Percentage of Sales Turnover
Cash	8,943	4·7	10,322	3·7
Debtors	46,673	24·4	59,078	21·3
Finished Goods	3,211	1·7	5,637	2·0
Work-in-Progress	11,648	6·1	26,730	9·6
Materials	7,633	4·0	10,784	3·9
Other Current Assets	—	—	—	—
Total Circulating Capital	78,108	40·9	112,551	40·5
Sales Turnover	191,047	100%	277,875	100%
Sales Turnover Index	100	—	145	—

Fig. 25

The normal would be assessed as a percentage of the sales turnover also, and divergence from normal could be watched as in the sales day method.

Whilst this percentage method is somewhat the simpler of the two, it is open to question whether the mental impression resulting is as striking as it is when the calendar day is used as the basis of measurement.

The Cash Section

Firms working on a bank overdraft will show only a small cash float, since all their liquid assets are probably in circulation, and out-payments are made by drawing on the bank within the limit permitted. Firms which keep their account in credit, however, will show a fluctuating amount of cash amongst their liquid assets, since they must build up a cash fund out of which out-payments (taxation, interest, dividends, etc.) can be paid.

Opinion is divided as to whether such a cash fund for external payments should be deducted from the circulating assets when the flow-speed is being calculated, especially in the case of Tax Reserve Certificates. The author's preference is in favour of this deduction, as it shows up more clearly the movement of the true circulating capital used for trading.

The position is that a portion of the circulating capital has, so to speak, been diverted into a backwater prior to being removed altogether. If it be still considered as forming part of the circulating capital, the rate of flow of the whole will slow down—to speed up once more when the diverted sum has been paid out, and is no longer in existence. If, on the other hand, it is considered as paid out once it has been so diverted, the actual circulating capital will not be affected when the payment takes place. Should it, for any reason, not be paid out as expected, it would naturally be used for trading once more and return into circulation.

It is by no means uncommon for firms to have a surplus of cash which cannot be used for trading, as the market is unable to absorb the goods or services that would be created by the use of the money for materials, wages, etc. Such cash is usually invested in some easily realizable security, so that it can bring in some small interest whilst lying idle. In this condition it would appear amongst the liquid assets and therefore form part of the circulating capital. This is bound to reduce the circulating speed of the actual capital employed in the trading, and therefore the same problem arises as with the out-payment provision—whether it should be deducted from the circulating capital before calculating the flow-speed. But in this case, circumstances are different; in the case of the out-payment provision the money is as good as gone, and it is only a question as to the moment at which the deduction is made. In the case of the invested money, it is a

genuine part of the company's trading capital, and if it cannot be used for that purpose it is misleading to pretend that it does not exist, and so present an unduly optimistic picture of the circulation speed of that trading capital. It may, however, be conveniently shown separately in a special section to itself.

Methods Previously Used

There is, of course, nothing novel in the suggestion that the investment in the various current assets should be watched. Many accountants do so now, but usually by means of ratios or percentages based on various combinations. Cash is not generally given special consideration, though the attention of the managing director would be drawn to an excessive sum lying unused. Debtors are usually related to creditors, or are surveyed in a schedule arranged in order of overdueness, so that the old accounts can be pressed for and the money brought back into circulation. Materials, work-in-progress, and finished goods stocks are often combined in one total, which is divided into the moving annual total of the sales to find out the number of times the "stock" is turning over in the course of a year—with the intention of making it move faster. Many of the more advanced members of the accountancy profession use checks of different types, including the recognized financial ratios developed in America in the early 1920's, to maintain a close control over the movement of the finance in the business. But the control of the internal finance is one aspect of the general management of the concern, and it must, therefore, fall within the responsibilities of the managing director. For his use some method must be developed which shows him the position without demanding a knowledge of the technique of accountancy—and the method set out above, measuring the month-by-month investment of the current assets in terms of sales days, appears to meet his requirements.

A Field for Research

Moreover, it appears also to open a wide and interesting field for practical research which might be of great value to business. In any class of industry—heavy engineering, light engineering, textile, boot and shoe, glass, and so on—the amounts invested in the current assets should be comparable, though they will differ widely between industries, and mutual comparison of

results might be of great value. This would appear to be a more possible proposition than the comparison of fixed assets investment previously mentioned. Two engineering firms, one with its own buildings and plant, and the other with hired fixed property, would show very different fixed assets percentages in their make-up of total capital employed. But if both were marketing the same product, their circulating capital movement should be comparable. Cash, debtors, finished goods stock, work-in-progress and materials should show much the same proportions, as should the flow-speed. Any differences would arise from the relative management efficiency of the two concerns.

Summary

Summarizing, therefore—

1. Circulating capital flow-speed can be ascertained by dividing the total of the current assets into the sales turnover for twelve months.

2. This flow-speed should be measured in sales days, the value of the sales day being found by dividing the sales turnover for twelve months by 365.

3. The circulating capital will be found in—

   (*a*) Investments and Cash.
   (*b*) Debtors
   (*c*) Finished Goods Stock
   (*d*) Work-in-progress
   (*e*) Material Stocks
   (*f*) Other Current Assets.

4. The amount of money invested in each of these sections should be measured each month in sales days.

Rise is unfavourable; fall is favourable.

CHAPTER X

TRADING ON THE EQUITY AND THE COST OF BORROWED CAPITAL

INVARIABLY a proportion of the total capital employed is due to the existence of borrowed money—indeed, more often than not the borrowed funds amount to more than the shareholders' owned capital, particularly in the case of private companies. Working in this manner with borrowed capital is known in America as "Trading on the equity." Since the object of a company's trading is to make an adequate return to the shareholders on the money they have invested, it may be good policy to pledge the shareholders' property, and put the money so obtained into a fuller use of that property. As long as the profit earned by that additional activity is more than the interest paid to the lender of the money, the total sum divisible amongst the shareholders will be increased—or, alternatively, the dividends to the shareholders can be maintained and at the same time reserves created or property improved in a manner which would have been impossible without the use of this borrowed money.

A simple example will illustrate this point—

Consider the case of a company having £100,000 of owned and issued capital, adding to its total capital employed by borrowing at 5 per cent, but capable of earning 10 per cent on the increased total capital employed. The net return on the owned money would steadily increase, thus—

Owned Money	Borrowed Money	Total Capital Employed	Interest Payable on Borrowed Money	Net Earnings	Net Return on Owned Money
£	£	£	£	£	£
100,000	10,000	110,000	500	10,500	10·5
100,000	20,000	120,000	1,000	11,000	11·0
100,000	30,000	130,000	1,500	11,500	11·5
100,000	40,000	140,000	2,000	12,000	12·0
100,000	50,000	150,000	2,500	12,500	12·5

FIG. 26

The owned money does not change, but the addition of borrowed money has enabled the company to extend its business and

therefore increase its profits in sum. So that, after paying for the use of the borrowed funds, the shareholders benefit from what is left.

Some Disadvantages

It should, however, be borne in mind that it may not be possible to borrow without pledging the assets of the business as security for the loan. In proportion, therefore, as the borrowed capital increases, the equity of the shareholders in the total capital employed—i.e. the total value of the assets—decreases, and the more vulnerable the whole company becomes, should a period of bad trade create difficulties in the way of paying the fixed interest on the borrowed money. In addition, such fixed interest must be included in the cost of the goods sold, so that the products of a concern trading on its equity will have to include an item of cost which is absent where no borrowed capital is involved.

If £1000 can be borrowed from the bank at 4 per cent, the use of that money will cost £40 per annum. But if the business is one where a high circulating speed is possible, that £40 will be recovered very quickly. If the firm turns over its circulating capital five times a year, making 3 per cent profit on its sales on each occasion, the total profit on the £1000 borrowed will amount to £150, or £110 net after deducting the £40 paid for the use of the money. So that the firm makes 11 per cent per annum net profit on the money it has borrowed.

Where the circulating capital moves slowly, the gain is proportionately reduced, until the point is reached where the turnover is longer than a year. Then the profit percentage on the sales must be greater than the interest percentage paid on the loan capital, or a loss will accrue. Slow turnovers of this nature are sometimes to be met with in heavy industry, where the working assets form an excessive proportion of the circulating capital.

How Much Borrowed Capital is Advisable?

The extent to which borrowed capital can advantageously be brought into a business must depend upon the circumstances of the case. A company anxious to expand, but unable to make further issues of ordinary or fixed interest shares, will normally fall back on debentures. If this is for the purpose of financing

fixed asset extensions in the shape of new buildings, plant, and machinery, it will increase the profit-making burden of the circulating capital by a definite amount which will have to be found whether trade is good, bad, or indifferent. In the heavier industries, just where the proportion of fixed assets to total assets is liable to be highest, this may prove a real danger to the concern. It may, in fact, find itself in the end working more for the benefit of the debenture holders than for itself, and so be hindered from putting as much money back into the business as it ought to do, to keep it in sound condition.

Capital Structure

In discussing the capital structure of a business, Collin Brooks* gives some interesting advice on the subject of borrowed money —

No generalization is really possible about financial planning. One company must of its very nature differ from another. The company that must have large standing assets, in plant and building and stocks and work in progress, can obviously command fixed-interest capital, in the shape of debentures, that is not possible to a company whose standing assets are few. The nature of those assets will also govern the command of such capital. It is not even possible to lay down a rule as to what proportion of assets can be used as security for debt-capital. It is easy for the financial purist to say that no company should have in pawn more than roughly 33⅓ per cent of its fixed assets, but the man of business will see occasions when a much higher percentage can be used profitably and safely as security for profit-earning working capital. What can be laid down is a kind of ideal plan to which a company can hope to work. (Even here, ideals will differ according to temperament.)

Such an ideal, to the present writer's mind, would give a plan very much on these lines. Debenture debt should not be more than half the value of fixed assets. Other fixed interest stocks (or shares) should not in turn exceed more than the remaining quantity of fixed assets except by the value of current assets. Ordinary stock (or shares) should not be nominally higher than the total asset value less the amount of prior charges in the shape of trading debts, fixed interest capital and debentures.

The Cost of Borrowed Capital

The borrowed capital is to be found amongst the liabilities, and is usually obtained from creditors, from the bank, or by means of long-term fixed interest securities.

1. Creditor Money

Funds obtained by delaying payment to creditors are more often than not looked upon as trading (or circulating) capital on

* *Company Finance* (P. S. King & Son, Ltd., 1939).

loan, free of charge. This may be a mistaken view in trades where discounts can be obtained for quick payment, since then the cost of the borrowed creditor money is the sum of the discounts lost by not taking advantage of the discount terms. Commercially such money may be, in fact, far more expensive than money borrowed in any other form.

Suppose a company purchases £10,000 of supplies per month (or £120,000 per annum) and the normal commercial terms in that trade are 2½ per cent discount for payment in thirty days. If the firm never takes a discount throughout the year it will have lost 2½ per cent on £120,000, or £3000.

But the firm cannot escape paying its creditors sooner or later; say it does so at three months, instead of at one month. It will, therefore, always have three months' creditors outstanding on its books, or £30,000. Each month an old £10,000 will be paid off, and a new £10,000 added, so that the total of borrowed creditor money remains throughout the year at £30,000. Since, as we have seen, the amount of discount lost was £3000, the company will, in effect, have paid 10 per cent for the use of the £30,000 creditor money during the year.

But if the example be further developed, a somewhat unfortunate moral emerges. If the firm paid at two months—just late enough to lose the discount—it would be losing £3000 per annum on an average creditor loan of £20,000, i.e. it would be paying 15 per cent for its money, not 10 per cent; whereas if by some diplomatic *tour de force* the managing director could obtain twelve months' credit, it would still pay the £3000 (by loss), but now on £120,000—or 2½ per cent. In other words, once a firm has got into the condition where it is unable to find the cash to pay promptly and take discounts, the longer it can resist paying, the cheaper the creditor money will be. The writer well remembers the shock he received one day many years ago when visiting with a client the senior general manager of one of the most important banks. The firm was short of working capital, and the banker said "Are you paying your creditors? You are? Then don't! Keep your money in the business." Dangerous advice, no doubt, but clearly based on the thought that under the circumstances existing at the moment in that particular company there was still a long way to go before the creditors would reach the stage of taking legal action to obtain their money. In the

meantime, the firm should use its available funds to increase output.

When the custom of the trade does not call for discounts for payment by a certain date, creditor money is indeed free of charge, and the amount borrowed by the debtor firm may only be limited by the patience of the creditors. Where discounts are available, the fullest advantage should be taken of them, and considerable sums can thereby be gained. For this reason it is advisable for a record to be kept by the cashier of any discounts available, but not taken, for any reason whatever it may be. This will constitute the cost of the creditor money.

The sum borrowed fluctuates daily, and to compute it accurately, month by month, would not be worth the trouble involved. A near enough approximation can be obtained by taking the moving annual monthly average (M.A.T. divided by 12) of the figure for creditors at the end of each month.

Then if the M.A.T. of the cost be divided by the M.A.A. of the creditors, it will give the percentage cost of creditor money.

2. Bank Overdraft

Here the interest rate will have been agreed when the accommodation was arranged. The sum borrowed fluctuates daily, like the creditors, but the bank will be able to submit a monthly statement of the interest charged, from which a moving annual total can be made up.

To find the amount of capital borrowed in this way, the same procedure as with the creditors should be adopted—a moving annual monthly average based on the overdraft figure at the end of each month. If the cashier is of the opinion that in any month the final figure would not fairly represent the approximate amount of bank money in use during the month, he can substitute an estimated figure for the actual one. Since the amount paid for its use is known, the error will only affect the total of the borrowed capital in use during the month, and the percentage cost of it, probably to an extent that is not significant.

3. Long-term Loan Capital

If a company has made a debenture issue at 5 per cent, it is customary to consider that it is paying 5 per cent for the use of the money. But if a careful examination is made of all expenses

arising from that issue, it will be found that the figure is invariably more than the actual interest rate. Bliss points out that the annual cost of borrowed funds should be computed on the basis of—

> The total of the items entering into the cost of borrowed funds, including interest payments of all kinds, commissions, amortization of debt discounts or premiums, proportion of expenses incurred in connection with security issues, such as trustee fees, commissions, etc.

All expenses arising from such loan capital should therefore be summarized, and this divided by the sum of the long-term capital —which will probably remain a constant figure—will give the percentage cost.

At this point there arise two alternative courses that may be pursued. Provisions are liabilities, and therefore borrowed money; but since the firm borrows such money temporarily from itself, no interest is paid on it. If no discounts are obtainable on creditor money, that also costs nothing. When calculating the cost of the borrowed funds, therefore, the alternatives are either to base it only upon the funds which bear interest, or to base it upon the total liabilities of every kind.

The matter is perhaps not of great importance, since an increase or a decrease will show in any case. On the whole the more satisfactory method would appear to be to calculate it on the interest-paying money only, as the charges will then not be diluted, and will show up more clearly.

The cost of borrowed money is an expense to the business, and, like all expenses of every nature, it should be carefully watched. The profit on trading only emerges when all expenses are deducted from all income, and whilst admittedly the cost of borrowed money may not easily be reduced, the managing director should at least know what it is. Then if it is seen to be rising, the cause of the increase can be sought for, and steps taken, even on a long-term policy basis, to remedy the unfavourable condition.

CHAPTER XI

DEBTORS AND CREDITORS

ALTHOUGH these two items in the balance-sheet have a tendency to assume the role of Siamese twins, in actual fact they are only distant connections. Circumstances and conditions, from their creation to their extinction, all differ, and the control of them has to be approached from a different angle. It is necessary, therefore, to examine each of them separately.

DEBTORS

It will be remembered from Fig. 2 that the debtor period forms that part of the circulating path where the money passes outside the company's control. Obviously, the shorter this period is, the sooner the money can be put back into circulation and made profitable once more. It is important, therefore, to know clearly in whose hands this amount of money is, as that may have a considerable bearing upon how quickly it returns into circulation.

Current practice divides the company's debtors into three sections—

(*a*) Government debtors.
(*b*) Trade or commercial debtors.
(*c*) Sundry debtors and pre-payments.

Examining each of these in turn—

(*a*) GOVERNMENT DEBTORS

The reason why Government (or municipal) debtors are isolated from the rest is because they are usually subject to terms of one kind or another which are not necessarily in accordance with normal commercial practice. Nor, when payment is unduly delayed, can the matter as a general rule be handled in the ordinary way of business. Collection may involve a diplomatic visit of the managing director to ministerial headquarters, or a special follow-up by the cashier to find out in which stage of the routine some key-document has come to rest. Or perhaps the sum invoiced may be subject to deductions not yet agreed. (When

the latter circumstances exist, a provision equivalent to the possible reduction should be deducted from the gross invoice figure, and the net figure only entered amongst the debtors.)

Whatever the circumstances, such Government or municipal indebtedness should be kept separate from the other two categories, and can be, if desired, shown as a separate sales day figure in the circulating capital flow-speed.

(*b*) Trade Debtors

Most companies record their trade debtors merely as a single figure, but the importance of the debtor-period in the circulating capital flow would appear to warrant a closer control than that. The total of invoices issued for the month shows the new debtors created, and there is no difficulty in splitting these over the company's products, so that a running inventory of debtors can be maintained in those classes. Certain types of product attract customers who are slow payers, whilst others are paid for promptly. Whatever subdivision is chosen, it should be aimed at measuring the time-period during which the money is outstanding, in order that it may be shortened as much as possible.

(*c*) Sundry Debtors and Pre-payments

These should always be kept separate from the other two sections, and also separate from each other, since they represent money owed to the company but not available for use for two different reasons.

The item "Sundry Debtors" usually represents items where expense has been incurred, which for some reason cannot yet be charged to a customer. For instance, goods delivered but not yet invoiced for some special reason, or expenses chargeable to uncompleted contracts. When these charges can be invoiced they will pass out of this section into one of the two previous ones. Until then, they must remain as an unmatured debt, an asset from the technical standpoint, but representing money unavailable for further use for the time being.

In this section are also to be found entries referring to employees' accounts, personal loans, and internal funds of one kind or another. These will not pass into the Government or trade debtor sections, but will always remain under this heading. If, therefore, they

represent any significant sum, it is advisable to record them as a separate figure, thus—

SUNDRY DEBTORS:		
External, chargeable	x	
Internal	x	
Total		x

Pre-payments, as their name denotes, represent actual expenditure already incurred, the benefit from which covers a forward period of time. Insurance premiums are payable in advance and once a premium has been paid the insurance company is regarded as owing to the company that portion of the premium represented by the unexpired time-period still outstanding when the accounts are made up.

Normally such money has disappeared for good from the circulating capital, but occasionally some adjustment results in the refund of some portion of the sum paid in advance.

THE DEBTOR STATEMENT

It will be seen, therefore, that the debtor-money upon which, at any given moment, the managing director can rely to keep his business moving is to be found in the figure for Government and trade debtors. Behind that there is the money shown by the figure for sundry debtors, external chargeable—but he cannot have this for further use until it becomes possible to charge it out. Sundry debtors, internal, represent money that may be difficult or impossible to obtain and pre-payments he can write off. The statement from which he would obtain this information might be set out thus—

DEBTORS	£	£
MATURED:		
Government . . .	x	
Commercial . . .	x	
TOTAL MATURED . .		x
MATURING:		
Sundry, External . .	x	
Sundry, Internal . .	x	
TOTAL MATURING . .		x
TOTAL OBTAINABLE . .		x
Unobtainable . .		x
TOTAL, ALL DEBTORS		x

FIG. 27

This should achieve the objective outlined at the start—of providing the managing director with an indication as to where his debtor-money is to be found.

That, however, will not tell him whether the money owed to him is being repaid as it becomes due. It is a snapshot (like the balance-sheet, of which it is a part) of the position at a given date. The control of the circulating capital obviously needs more, at this important stage, than the mere total figure of debtors expressed in sales days. An analysed survey of the debtor position is an old-established practice in industry and commerce, and is carried out by the preparation of a regular monthly statement of overdue accounts. Precisely how this list is drawn up will depend upon the normal commercial terms of credit in the particular class of business. Where payment is made monthly, it is usual to separate the debtors into not yet due, overdue one month, two months, three months, four-six months, and over six months.

In most companies this matter is carefully watched, a summary of the debtors being submitted to the managing director every month, arranged in suitable categories, according to the length of time the payment has been outstanding. Whilst an actual bad debt may be relatively uncommon, some firms undoubtedly allow their money to remain outside the circulating flow longer than is necessary or reasonable. After all, money that is retained by a debtor is borrowed by him, as we have seen in the previous chapter, in order to finance his business, usually without payment of interest, and if a company permits other companies to finance their businesses with its money, it may itself have to find (and pay for) more money to make up its own requirements.

This raises the whole problem of commercial credit. Some firms use long credit terms as a special selling advantage. Such arrangements may be quite sound, provided the debtor is prepared to pay at least the same interest on the debt as the company has to pay to some other lender—perhaps the bank—in order to replace the money put out of action during the long credit period. Hire-purchase terms are calculated on this basis, but in normal trading it is often difficult, if not impossible, to enforce the payment of interest on the money owed by a tardy debtor. For this reason a continuous review of the debtor list in degrees of overdueness is one of the financial controls that every managing director should maintain.

Frozen Debts

In times of trade depression it has frequently happened that firms of good standing, themselves placed in difficulties by the inability of their own debtors to meet their commitments, cannot pay their debts. In such circumstances it is as well to split the debtors in the company's books into (*a*) available and (*b*) frozen. This enables the management to see the extent to which the circulating capital has been temporarily reduced by the frozen debts, and to take steps of one kind or another to replace the loss from other temporary sources, until such time as trade revives and the frozen debts become liquid again.

Debt Collection

The niceties of debt collection could fill a volume in themselves. Some firms—wisely, in the author's opinion—make it a rule that letters pressing for the payment of accounts shall only be written by the sales department. Nothing is more apt to cause irritation and a loss of goodwill than a tactless dunning letter written by a clerk in the cashier's office, with no knowledge of the circumstances, and merely working automatically from a "tickler" diary. The small coloured stick-on labels, common before the War, served a useful purpose, since they were attached to invoices and statements. Such documents being usually sent direct to the cashier's office when the correspondence is sorted in the morning, the labels drew attention in an impersonal manner to the fact that payment was overdue, and undoubtedly had some effect. A letter pressing for payment, on the other hand, would probably be marked off to the managing director (especially if headed for his attention) and as a result the creditor firm might quite possibly find themselves on the black-list for future orders—perhaps unreasonably, but still effectively as far as business relations were concerned. The sales department were responsible in the first instance for obtaining the order, and this must almost certainly have entailed a personal contact with some individual in the debtor firm. A discreet note or a word on the telephone with that individual will usually start the ball rolling in the right direction. Where the debtor firm is in temporary difficulties for cash, the sales representative will probably be able to find out the circumstances of the case, and who had better be interviewed in order to

take the question of payment a stage further. A debt handled tactfully by the sales department usually achieves an increase of goodwill, which often brings further orders at a later date.

The entire commercial structure is based upon the prompt meeting of money obligations when due, whatever the agreed payment conditions may have been. The important factor in the situation, which should always be borne in mind, is that whilst the money is in the debtor's hands, it is not only out of circulation, but also outside control. Sound financial management, therefore, should aim at keeping this period as short as possible, and maintaining a close watch over sums, however small, which are not returning as they should into the circulating capital stream.

Creditors

The problem of controlling creditors is altogether different. The creditor represents borrowed money and only affects the circulating capital in the sense that such sum as is borrowed in this manner adds an equivalent sum of the company's own money for circulation. For control purposes, therefore, it is necessary to assess the relative advantages and disadvantages of creditor money, and from that assessment to determine the figure which can be borrowed without endangering the reputation or the financial stability of the company.

It is the practice to subdivide the creditors into categories which correspond very closely with those used for debtors, i.e.—

(*a*) Government creditors.
(*b*) Trade or commercial creditors.
(*c*) Sundry creditors and accruals.

(*a*) Government Creditors

Such items usually record taxation of one kind or another, due and not yet paid.

(*b*) Trade or Commercial Creditors

Here, as in the case of commercial debtors, it is an advantage to subdivide the total under classes of supplies. At any rate, creditors for money represented by process direct material should be divided from creditors for money represented by indirect material, and also from those arising from the supply of tangible asset equipment. Where a firm has been buying machinery or

making additions or improvements to buildings through outside contractors, the debt resulting will swell the total of creditors for the time being, and may give a false impression of the amount of trade creditor money in the circulating capital if not shown separately.

(*c*) Sundry Creditors and Accruals

These are the reverse of the "Sundry debtors and pre-payments" mentioned earlier. They represent (*a*) external debts of one kind or another, incurred but not yet due to be called in by the creditors (such as employees' income tax, or charges for goods bought but not yet delivered) and (*b*) internal debts acknowledged but not yet paid off (such as payments to staff funds). As with the sundry debtors, the external sundry creditors will in due course move up into the Government or commercial creditor section, and the internal ones will stay in their category until cleared.

Quite a number of the administrative expenses of a business are paid at regular intervals at the end of a time-period, such as gas, electricity, water, telephone, carriage, legal and professional charges, and so on. These expenses are all recorded as they arise (or are provided for, i.e. provisions are created to cover them) in the company's books, and accrue until the end of the time-period is reached and the invoice is received from the supplier. They constitute definite debts which will invariably have to be paid, though they are not at the moment technically due. If paid on falling due, they disappear; if not paid, they will move up into the earlier categories and figure amongst the commercial creditors, to be paid in due course.

Such "accrual" entries are required by the exigencies of double-entry book-keeping. The main aspect in which they differ from the "pre-payments" amongst the debtors is that, whereas the latter represent money already paid out and gone, the creditor accruals represent money not yet due, the payment of which cannot be avoided sooner or later.

The creditor statement might therefore be set out as in Fig. 28.

Dangers of Creditor Money

It is important that this record of creditors should be correct and up-to-date, since creditors' money is borrowed money used in the circulating capital, and the proportion of creditor money

CREDITORS	£	£	£
ACCRUED:			
Government . . .		x	
Commercial:			
Trading	x		
Fixed Property Expense	x	x	
TOTAL ACCRUED . . .			x
MATURING:			
External			x
TOTAL EXTERNAL CREDITORS			x
Internal . . .			x
TOTAL, ALL CREDITORS			x

FIG. 28

in the circulating capital should be carefully watched. In so far as it exceeds whatever normal the managing director may fix, the company is over-trading. It must be remembered that whilst debtors arise from trading only, creditors include capital expenditure, taxation, interest on borrowed money and all items which the firm may be called upon to pay for in cash, even salaries, if these are in arrears. Some yard-stick must therefore be devised by means of which the managing director can measure his liability to danger from the use of this form of money.

That danger lies, in the first instance, in withholding money from creditors who urgently need it for their own business use, and secondly in withholding money from creditors who are nervous because they have no security for the sum owing to them, even though they are not urgently requiring it for themselves. Both classes of creditor, if not repaid promptly, may obtain County Court summonses, or High Court writs, to enforce payment. If the company is unable to comply with the orders, liquidation may follow.

Such creditors, as a general rule, form only a small proportion of the trade creditor total. They are more often than not firms or individuals in a small way of business, themselves over-trading and short of money. Where large-firm creditors are concerned, they usually give good warning of rising impatience, and may propose schemes by which an excessive debt can be gradually reduced. Debenture holders with interest unpaid, or banks where a request for overdraft reduction has not been met, are seldom prepared to force liquidation unless the financial position of the company is hopeless.

Certainly all these current liabilities will have to be met sooner or later, if the company is to continue trading, but the point under examination is the method by which the managing director can ensure that his creditors are not gaining on him. This can be watched in two ways—

(*a*) By showing the creditors as a percentage of the circulating capital.

(*b*) By showing the creditors in terms of sales days.

It is sometimes suggested that creditors should be measured in purchase days rather than sales days, the purchase day being found by dividing the purchases for the year by 365. This, however, introduces a second unit of measurement, without any corresponding advantage, since the ultimate unit of the company's activity is the sales day and purchases must rise or fall with the output and therefore the sales.

If purchases—i.e. creditors—were increasing without a corresponding increase in sales, obviously the figure of creditors in sales days would rise and so draw attention to what was going on. It is true that debtors in sales days are a direct measure of financial activity, whereas creditors in sales days are merely an index, since a sales day would be greater than a purchase day by the difference between the selling price of an article and the inwards invoices passing through the purchase ledger in connection with the manufacture of that article. But once a normal for creditors in terms of sales days has been set, favourable and unfavourable tendencies would be brought to light by the rise and fall of the index.

Examples taken from the two firms X and Y mentioned earlier may show the difference between the two above-mentioned methods more clearly—

By Method (*a*).

For Firm X (Fig. 20, p. 117) the figures were—

	Year A £	Year B £
Circulating Capital . . .	78,108	112,551
Trade Creditors. . . .	25,327	38,010
Percentage of Trade Creditors in Circulating Capital. . .	32·4%	34·0%
Index	100	105

FIG. 29

For Firm Y (Fig. 21, p. 118) the figures were—

	Year A £	Year B £	Year C £
Circulating Capital . . .	6,521	13,124	19,101
Trade Creditors	4,860	7,910	5,835
Percentage of Trade Creditors in Circulating Capital . . .	74·6%	60·3%	30·9%
Index	100	80·6	40·1

FIG. 30

This provides further evidence of the very capable handling of the finance of this small firm.

The circulating capital, as we know, records the amount of money being used for trading, and all working expenses, including trade creditors, must be paid out of it. Method (*a*) records the proportion of the circulating capital which is owed to creditors, and, therefore, the proportion which is available to cover other working expenses.

THEORETICAL NORMALS

It is not possible to give a theoretical normal for this percentage of creditor money in the circulating capital on account of the varying make-up of the current assets in different concerns. The best plan is to assess it in the first instance and then adjust it according to how it works out in practice. For instance, in the Estimate (Fig. 22) given on p. 120, the normal creditors might be assessed at £7000. This would give 21·07 per cent—say 20 per cent—as the normal figure of trade creditor money in the circulating capital, to begin with. Later it might be found that the firm could work without drawbacks on 25 per cent and the normal could be adjusted accordingly.

By Method (b).

Under this arrangement the examples would give the results shown in Fig. 31.

Here also a normal would be assessed and adjusted as in (*a*).

The close similarity in the indices showing the change by both methods will be noted. Which is used for control purposes is a matter of choice; both will maintain a check on the position.

FIRM X

	Year A £	Year B £
Sales Turnover	191,047	277,875
Value of Sales Day	523	761
Trade Creditors	25,327	38,010
Trade Creditors in Sales Days	48·4	49·8
Index	100	103

FIRM Y

	Year A £	Year B £	Year C £
Sales Turnover	29,194	60,095	83,314
Value of Sales Day	80	165	234
Trade Creditors	4,860	7,910	5,835
Trade Creditors in Sales Days	60	48	25
Index	100	80	41·7

FIG. 31

WATCHING THE CREDITOR POSITION

The study of the creditor position should always be made with two objects in view—the avoidance of an action by a creditor harmful to the company's reputation, and the maintenance of the prompt payment of all obligations on their due date. The former state of affairs is not likely to occur in any well-managed concern, and the latter is often automatic in action. But control implies watchfulness, and not necessarily action; only a readiness to take action should circumstances demand it, and a knowledge of what action to take.

THE DEBTOR-CREDITOR RATIO

The ratio of debtors to creditors is often mentioned as a management figure, but it would appear to have more value in the initial survey of the financial position of a company than for month-to-month financial management use. The fact that the debtor-creditor ratio is 1·35: 1 shows that the company is owed 27s. for every 20s. it owes to other people. If, in the following month, the figures show that the 27s. has risen to 28s., the position

has certainly improved, but, as is always the case with ratios, it is impossible to see without reference to the figures whether this is due to the fact that the creditors have decreased or the debtors increased, or both. Moreover, in certain classes of business the normal commercial terms for debtors and creditors vary considerably. It may be usual, for instance, in one trade for manufacturers to have to pay spot cash with orders for their material, and allow their customers three months' credit. Hence such a firm has practically no trade creditors (except for capital expenditure) and yet has three months of debtors. Naturally this involves a much higher proportion of owned circulating capital than in the cases where payments both in and out are on a monthly basis.

Again, the ratio of debtors to creditors will vary in accordance with the amount of bought-out material in the goods sold. Where the material cost is small, but high-grade expensive labour is necessary and an extensive sales department has to be maintained for distribution purposes, the figure of creditors will be small in relation to the debtors. Where the material proportion in the goods sold is high, and labour relatively low, the ratio of debtors to creditors will approach unity.

As an example of the debtor-creditor ratio, we can again take the data of Figs. 20 and 21—

FIRM X

	Year A £	Year B £
Debtors	46,673	59,078
Creditors	25,327	38,010
Ratio	1·84	1·55

FIRM Y

	Year A £	Year B £	Year C £
Debtors	5,056	10,137	15,744
Creditors	4,860	7,910	5,835
Ratio	1·04	1·28	2·70

FIG. 32

Naturally these ratios will depend on the financial policy of the company, which may pay off creditors quickly so as to obtain discounts, and also offer a discount to debtors to obtain rapid payment itself. As a figure on its own the ratio of debtors to creditors is not very informative, except where it shows below unity. This, indicating that creditors stand higher than debtors, is almost always direct evidence of over-trading.

The Commitment Record

Some companies keep a careful record of their commitments ahead, of purchase-orders placed which have not yet been delivered.

"At any given date a company's liabilities and potential liabilities are as follows—

1. Purchases for which invoices have been accepted, passed through the financial accounts and which appear in the creditors.

2. Purchases for which invoices have been received but which are not yet checked and taken into the financial accounts.

3. Purchases for which no deliveries have as yet been received, but which constitute a firm liability, being orders of a type which cannot be cancelled.

4. As '3' above, but for which supplier may possibly accept cancellation.

One method of providing this information is to have an extra sheet in the Purchase Request set. This extra sheet is known as the Commitment Record, and no order is permitted to go out without an approximate price on this Commitment Record. Orders are not held up until the receipt of quotations, but the Purchase Department have discretion to make an approximation of the value for the purpose of this Commitment Record. A return is made each week which shows not only creditors as per the financial accounts, but creditors plus commitments, and this, in my view, is the figure which should be equated in terms of days to annual sales."*

A commitment record of this nature might be a valuable guide to the managing director where the material cost of his goods was

* Communicated by Mr. G. R. Pryor, Managing Director of Edward Pryor & Son, Ltd., Sheffield.

high. It would also act as a deterrent to over-optimistic buying, which might lead to the locking up of cash in a working asset.

Delays in Invoice Entries

One of the common drawbacks to obtaining an accurate figure of commercial creditors is the fact that many suppliers do not send in their invoices promptly and regularly. This is a practical difficulty with which most company accountants have to contend, and it frequently happens that material is received in the stores, issued, and used, before the invoice arrives and by passing through the purchase ledger is included in the purchases for the period. Again, before payment, invoices must be carefully checked against the goods received, and in companies where the checking procedure is not carried out promptly, there is often a delay which may amount to weeks before the invoice is agreed and passed through the books. The latter difficulty can be overcome by better organization, but the former appears to be endemic in industry, and can only be counteracted by a simple system of "self-invoicing" by which a copy of the goods received note is priced up and used as a "selves-invoice," any discrepancy between this and the actual invoice being adjusted when the latter finally arrives. Some system of this kind appears inevitable if an accurate month-by-month record is to be made of the goods actually received on the company's premises, since without it there is a constant error which can and, in the writer's experience, actually does, on occasions, assume serious proportions.

The financial structure of the business is interwoven with problems in which creditors and debtors figure. What has been set out in this chapter relates only to the debtor item in the current assets, and the Government and trade creditor items in the current liabilities. When considering his position, the managing director has to bear in mind that a maturing, but not yet due, item may next month enter the accrued liability category, and impose a change in the ratios, with a call for early payment of perhaps an embarrassing sum of money. This aspect of affairs will be treated in the next chapter.

CHAPTER XII

WORKING CAPITAL AND THE CASH FORECAST

THE figure obtained by deducting the current liabilities shown in the balance-sheet from the current assets is commonly known as the "working capital," and from this it is customary to judge whether the money in the business is in a sufficiently liquid state or not.

The most pressing concern of the managing director in connection with his finance is certainly to maintain a good liquid condition—i.e. to ensure that there is always sufficient cash available to meet the commitments which arise from day to day as and when they ought to be met, according to the commercial standards ruling in his class of business. His viewpoint is altogether different from that of the banker. The banker is not concerned with day-to-day transactions; he looks at the current liabilities which purport to show what payments have shortly to be made, and compares them with the current assets which, as we have seen, represent the circulating capital used in the business. If this circulating capital will cover the current liabilities twice over, the banker usually accepts the company's financial state as being sufficiently liquid, basing his opinion upon the feeling that although some of the book debts may be bad, some of the liabilities omitted or under-stated, and the stock perhaps somewhat over-valued, the cover offered by the excess of cash or near-cash over existing commitments would be adequate if the company were wound up.

The managing director, however, is not thinking of the situation that would arise if his concern were wound up. He knows that as long as it keeps going, he will have to meet the day-to-day requirements of his creditors, pay his wages, salaries and other expenses, and at stated periods pay out sums for dividends, fixed interest, taxation, and other purposes which call for money to be taken out of the circulating capital. He must, therefore, maintain a sufficient margin between cash available and contingencies arising. He cannot depend upon the figure of "working capital" to show him whether he has this cash margin or not, since (*a*)

his current assets as shown in the balance-sheet, whilst they may state cash or near-cash values, give no indication of *when* the near-cash items will turn into cash, and (*b*) his current liabilities as shown in the balance-sheet usually record only accrued and not maturing liabilities. Even if maturing liabilities are fully shown they will only include external payments, and will not show the future liability for wages, salaries, and other general management expenses. Obviously, under such conditions, subtracting the current liabilities from the current assets can only give a figure representing "current assets not yet earmarked to meet stated liabilities."

Working Capital Investment

Like the debtor-creditor ratio, this figure of working capital means very little by itself. It is much more important to know how it is invested. A wide degree of liquidity is possible, and a stated working capital may be available for use as cash, or sunk in assets which are a long way from turning into money, according to circumstances. Consider the two working capital make-ups shown thus—

COMPANY A

	£	£
Current Assets:		
Cash at Bank and in Hand	375	
Marketable Investments	6,000	
Debtors	5,642	
Stock and Work-in-Progress	3,764	
Total Current Assets		15,781
Current Liabilities:		
Creditors	3,875	
Taxation	1,270	
Total Current Liabilities		5,145
Working Capital		£10,636

COMPANY B

	£	£
Current Assets:		
Cash at Bank and in Hand	375	
Debtors	5,642	
Stock and Work-in-Progress	9,764	
Total Current Assets		15,781
Current Liabilities:		
Creditors	3,875	
Taxation	1,270	
Total Current Liabilities		5,145
Working Capital		£10,636

Fig. 33

It will be seen that the working capital of both concerns is identical, but in the case of Company A £6000 is available in marketable investments for immediate cash requirements if needed. Company B has that £6000 in its stock and work-in-progress, and therefore the money is not available until the finished stock has been sold, the work-in-progress completed and sold, and the raw material used up in making saleable goods, which have also to be sold. But finished stock may be, and in many companies unfortunately is, made up of goods not readily saleable. The work-in-progress will be in all stages of manufacture, some of it almost completed and some of it just started on its journey through the factory where perhaps it may spend two or three months before reaching a saleable condition, so that the money it represents certainly cannot be considered as readily accessible. The raw material is in a worse position still. Although the calculation shows both companies having the same working capital, the amount of money available to "work" the business is very different, and Company B might easily find itself short of cash to meet its normal commitments before long.

Such statements as Fig. 33 would be more informative, therefore, if prepared in such a manner as to show the make-up of the working capital, for a reason which will be developed later. They would then be submitted on the lines shown in Fig. 34.

From this it can be clearly seen that to meet current liabilities Company A only needs to use its cash and 80 per cent of its investments, whereas company B would have to use its cash and *reduce* its debtors by 85 per cent, having no cash fund of investments available. To reduce the total of debtors from £5642 to £872 would almost certainly be impossible, so that the company would have to find cash from some external source to meet its liabilities.

The Importance of Liquidity

Why should this question of liquidity be so important? Because liabilities can only be paid in cash, and the only available real cash in the business is in the circulating capital in the "cash in hand and at the bank," and "debtor" sections. If we go round the circuit backwards from the bank at D (Fig. 2) we meet the circulating capital moving towards us in a decreasingly liquid condition. First the debtors, from the cheque arriving by the next

COMPANY A

WORKING CAPITAL STATEMENT

	£	£	£	Make-up of W.C. Item %	Make-up of W.C. Group %
Current Assets			15,781		
Current Liabilities			5,145		
WORKING CAPITAL			10,636		
CURRENT LIABILITIES:					
Creditors	3,875				
Taxation	1,270				
		5,145			
CURRENT ASSETS:					
LIQUID:					
Cash	375			—	
Investments (80%)	4,770	5,145	1,230 (20%)	11·6	
Debtors			5,642	53·0	64·6
WORKING:					
Finished Goods			875	8·2	
Work-in-Progress			1,932	18·2	
Material			957	9·0	35·4
WORKING CAPITAL			£10,636	100·0	100·0

Ratio: $\frac{\text{Liquid Assets}}{\text{Current Liabilities}} = 2{\cdot}34$

COMPANY B

WORKING CAPITAL STATEMENT

	£	£	£	Make-up of W.C. Item %	Make-up of W.C. Group %
Current Assets			15,781		
Current Liabilities			5,145		
WORKING CAPITAL			10,636		
CURRENT LIABILITIES:					
Creditors	3,875				
Taxation	1,270				
		5,145			
CURRENT ASSETS:					
LIQUID:					
Cash	375			—	
Debtors (85%)	4,770	5,145	872 (15%)	8·2	8·2
WORKING:					
Finished Goods			1,875	17·6	
Work-in-Progress			2,932	27·6	
Material			4,957	46·6	91·8
WORKING CAPITAL			£10,636	100·0	100·0

Ratio: $\frac{\text{Liquid Assets}}{\text{Current Liabilities}} = 1{\cdot}17$

FIG 34

post, to the invoice sent out this morning for which the payment cannot be expected for five or six weeks. Then the finished goods stock—it may be months before some of that is sold, or it may go out to-morrow. Then the work-in-progress; in all stages, from the job waiting for the shop labourer to take it to the dispatch department or the stock-room, to the batch of stampings just coming out of the raw material store on its journey to the machine-shop. Lastly, the raw material itself, stacked in those battered racks and bins, with their grimy bin-cards, and often the rust of years gleaming dully in the half-light, as the castings and forgings wait for the call from the planning department. It is all circulating capital, in some form or another, but some of it is a long way off being money.

Indeed, the managing director, finding cash to meet his obligations, can only rely on his credit account in the bank (or the margin between his existing overdraft figure and the limit allowed to him), his cash float in the office, such readily marketable investments as he possesses, and the daily stream of payments coming in from his debtors—and those are his liquid "assets." So there we have the reason for the old name of the "acid test," applied in bank-credit quarters to the relation between the liquid assets and the current liabilities of a business.

For if the managing director cannot find liquid assets to meet his current liabilities as they fall due, trouble will arise. His cash at the bank and his float will in all probability only be nominal sums, unless he is building up a cash fund for taxation or other out-payment purposes. His marketable securities he usually wishes to keep as an "iron ration," so that he must meet his current liabilities with his incoming debtor-money. As long as he only has to pay trade creditors, all should be well, but if the debtor-money is only a little more than the trade creditor demands, any out-payments that he has to make will either force the non-payment of creditors, or need a different source of supply. The moment the boundary between liquid and working assets is passed, the cash recedes into the distance with great rapidity and increasing vagueness as to its real amount. Consequently the banker, checking up on a balance-sheet, will always look first to see whether the liquid assets of the business will cover the current liabilities. That is why this comparison is called the "acid test" of the financial soundness of a trading concern.

Cash Value of Working Assets

Moreover, it is frequently not sufficiently appreciated that the working asset money is not a cash fund available for use in its totality. The obtaining of cash funds from the working assets depends not upon their increase, but upon their *decrease*, by turning them into cash. The managing director cannot therefore observe his total funds invested in working assets, and congratulate himself on having so much cash reserve to draw on. He can only benefit *by the extent of any reduction that he can make* in the investment in the working assets—hence the value of the sales day calculations in the circulating capital flow-speed dealt with in Chapter IX. The further he has to go backwards round the circuit to balance his current liabilities, the worse position he is in, and it should be his constant endeavour to maintain a condition in which his liquid assets are greater than, or at least equal to, his current liabilities.

Many firms cannot pass this test, and yet continue to trade without difficulty. Some, indeed, under this examination, show results which are almost appalling in their apparent significance —yet the company carries on. That, however, is not the point. What we are concerned with here is to indicate how control over the internal finances of a business can be maintained so that security is assured, and as long as liquid assets are equal to current liabilities that condition is achieved. The fact that a firm can continue its existence with a sub-normal ratio merely means that it is in a vulnerable condition, and it only needs one or two adverse circumstances to arise for it to collapse altogether.

Examples

In studying these Working Capital Statements, the figures to watch are those showing the percentage make-up. The current assets being arranged in descending order of liquidity, their share in the total working capital should be read from the bottom upwards. For instance, Company Q is in a better state than Company P, since it has only 64·8 per cent of its working funds invested in working assets, and 35·2 per cent in liquid assets, whilst Company P shows 96·9 per cent and 3·1 per cent respectively

This method provides a very close control over the movement of the money, and a clear warning if trouble lies ahead.

The examples which follow show how varied conditions can be:

COMPANY P

	£	£	£	Make-up of W.C. Item %	Group %
Current Assets			71,322		
Current Liabilities			34,183		
WORKING CAPITAL			37,139		
CURRENT LIABILITIES:					
Creditors	5,278				
Provisions	28,905				
		34,183			
CURRENT ASSETS:					
LIQUID:					
Cash	12,026			—	
Debtors (95%)	22,157	34,183	1,168 (5%)	3·1	3·1
WORKING:					
Finished Goods			4,312	11·7	
Work-in-Progress			11,101	38·0	
Material			17,528	47·2	96·9
WORKING CAPITAL			£37,139	100·0	100·0

Ratio: $\frac{\text{Liquid Assets}}{\text{Current Liabilities}} = 1{\cdot}03$

FIG. 35

A satisfactory state of affairs.

COMPANY Q

	£	£	£	Make-up of W.C. Item %	Group %
Current Assets			26,951		
Current Liabilities			13,082		
WORKING CAPITAL			13,869		
CURRENT LIABILITIES:					
Creditors	5,607				
Provisions	7,475				
		13,082			
CURRENT ASSETS:					
LIQUID:					
Cash	6,263			-	
Debtors (58%)	6,819	13,082	4,887 (42%)	35·2	35·2
WORKING:					
Finished Goods			2,059	14·8	
Work-in-Progress			455	3·3	
Material Stock			6,468	46·7	64·8
WORKING CAPITAL			£13,869	100·0	100·0

Ratio: $\frac{\text{Liquid Assets}}{\text{Current Liabilities}} = 1{\cdot}37$

FIG. 36

Another business in a sound condition. The small figure of work-in-progress indicates it is largely occupied on assembly work.

COMPANY R

	£	£	£		Make-up of W.C. Item %	Group %
Current Assets			79,620			
Current Liabilities			62,308			
WORKING CAPITAL			17,312			
CURRENT LIABILITIES:						
Creditors	60,162					
Provisions	2,146	62,308				
CURRENT ASSETS:						
LIQUID:						
Cash and Securities	982					
Debtors	24,959					
WORKING:					29·9	
Finished Goods	15,436					
Work-in-Progress (80%)	20,931	62,308	5,182 (20%)		70·1	100·0
Material			12,130		100·0	100·0
WORKING CAPITAL			£17,312			

Ratio: $\frac{\text{Liquid Assets}}{\text{Current Liabilities}} = 0{\cdot}42$

FIG. 37

There is an obvious shortage of cash here, with creditors greatly in excess of debtors. It will need fresh money to put matters right.

COMPANY S

	£	£	£		Make-up of W.C. Item %	Group %
Current Assets			18,736			
Current Liabilities			18,842			
WORKING CAPITAL			106	(Deficit)		
CURRENT LIABILITIES:						
Creditors	7,842					
Provisions	11,000	18,842				
CURRENT ASSETS:						
LIQUID:						
Cash	236					
Debtors	14,917					
WORKING:						
Finished Goods	832					
Work-in-Progress	1,764					
Material	987	18,736				
WORKING CAPITAL			106	(Deficit)		

Ratio: $\frac{\text{Liquid Assets}}{\text{Current Liabilities}} = 0{\cdot}81$

FIG. 38

This concern has no working capital at all. The provision of £11,000 is for taxation and naturally cannot be paid. Meanwhile the company continues to trade energetically, and the tax-collector has to wait until the debt can be gradually paid off through accruing profits, or until additional capital is put into the business. The "acid test" ratio, it will be noted, is better than in the case of Company R.

At what point in the circuit the working capital cover should start, for safety standards, is a matter for future research. Since it is possible, in any given concern where trading conditions are known, to fix normals for the sales day make-up of the circulating capital, and also for the current liabilities, it should be equally possible to fix a normal for the percentage cover of the working capital. So far, however, no data seem to be available on the subject.

The Cash Forecast

If the main concern of the managing director is to ensure that there is always sufficient cash available to meet the commitments that arise from day to day, clearly he will have to look for his information elsewhere than in his books of account, which record only accrued transactions and such specific provisions as may have been made to meet future liabilities. He will have to foresee what *cash payments* of every description are going to fall due in the near future and what cash he will have available to meet them.

The period taken can be the one which suits the type of business best. If it is too short, due notice will not be given of coming requirements; if it is too long, the forecasts of both income and expense may become too uncertain to be reliable, and require too much revision.

Probably the best period, in industries where monthly payments of account are the rule, is three months ahead.

In order to set out the position clearly, therefore, it is necessary to make a forecast or estimate of—

(*a*) Monthly cash income expected from all sources for the next three months;

(*b*) Monthly cash expenditure of all natures required for the next three months, separating internal circulating capital payments from out-payments.

Subtracting (*b*) from (*a*) then gives the surplus or deficit of

cash each month and for the period of three months, which may be termed the liquid margin or deficit.

For the purpose of controlling the internal movements of the finance in the business, the cash forecast should actually form the first and most important financial schedule in the set of board returns by which the business is managed. The balance-sheet may record the value of the assets, the extent of the liabilities, and the resultant equity of the shareholders; the profit and loss account may show how expenditure deducted from income has left a profit from the last trading period; charts or statements of one kind or another may demonstrate how different items of income or expense are above or below the normals set. But none of these gives so clearly the satisfactory or unsatisfactory position of the going concern in action as the cash forecast. If cash receipts are in excess, all will be well; if they are deficient, troubles of one kind or another are inevitable. In fact, there was a profound truth in Mr. Micawber's famous utterance, "Annual income twenty pounds, annual expenditure nineteen nineteen six, result, happiness. Annual income twenty pounds, annual expenditure twenty pounds ought and six, result, misery. The blossom is blighted, the leaf is withered, the God of day goes down upon the dreary scene, and—and, in short, you are forever floored."

From the cash forecast—which must invariably be based on cash only, paid in and paid out, and must not contain provisions of any kind—the managing director can see what action he must take to maintain his security; whether he must increase the cash receipts, perhaps by selling excess stock, drawing bills which can be discounted, or even selling unrequired fixed assets; or whether he must decrease the cash payments, perhaps by using up existing material, reducing staff or shop labour, taking off the night-shift, accepting bills, or passing the dividend. Behind the figures in the cash forecast lies practically every problem that arises in the management of a business. Whether cash receipts are adequate to meet cash payments is indeed the acid test of the soundness of any concern, and no amount of paper profits or nominal asset values can help when incoming cash remains less than outgoing cash, in spite of the most strenuous efforts to reverse the position.

Building up the Statement

To build up the cash forecast the best course is, normally,

to set out the circulating capital expense on the lines adopted in the standard statement of account each month for three months ahead, but only those items which actually will be paid in cash. The number of working days each month must be noted, as some expenses will vary with the number of working days, and others will be the same each calendar month, no matter how many working days it contains. As we are dealing here with an estimate, no close accuracy is possible, and round figures should be used, usually on the safe side.

Where trade activity is increasing or decreasing, this should be taken into account in the estimate.

External payments should be shown separately from internal payments, whether obligatory or not.

The statement will open with the cash at the bank, which is available at the start. To this will be added the sales turnovers for the periods previous, falling to be paid in the months under review; then comes sundry income due to be received in the periods, and any other *cash* contributions expected. The sales turnover falling to be paid in the months under review will depend upon the normal commercial terms of payment in the class of business. Where accounts are paid monthly, the sales turnover for January would be taken as returning in cash during March. But the cashier, in estimating the cash returning into circulation from the debtors, must take into account all known factors—such as quick and slow payers, contra-accounts, discounted bills, special credit terms or hire purchase instalments. Obviously the whole effectiveness of the cash forecast will depend in the end on the correctness with which the cashier assesses actual cash payments in relation to the recorded sales turnover—and in this field, according to the writer's experience, many cashiers possess a high degree of skill. From this total is deducted the sum of the cash that will be paid out during the period, and the result will show the cash margin or deficit.

Since it is difficult, if not impossible, for the cashier to say precisely when a cheque may be expected, the three months' total will probably be more dependable than the individual months. A forecast of cash expected in June may appear a long way out merely because a large cheque arrived on 1st July instead of 30th June. It is therefore safer to watch the liquid margin figure on the three months' basis.

At the end of each month a fresh statement is made out, including the new third month, and the two months already included are re-estimated in the light of up-to-date knowledge. If desired, a special statement can be drawn up showing the difference, up or down, between the estimated and actual figures for the month just completed; this will justify the new opening figure of the cash at the bank or the overdraft—where one exists.

In an actual example, the procedure would be somewhat on the following lines—

The cashier of the E.F. Co. Ltd. sits down in the first week of July to make out his cash forecast for the next three months of July, August, and September. He will have a blank statement before him, filling in the figures as he proceeds (Fig. 39). In his case the direct material falling due for payment in July, August, and September will be the material invoiced to him in May, June, and July. In May the company took advantage of favourable market conditions to make a fairly large purchase of a certain class of material—the third successive month in which this procedure was carried out. A sum, therefore, of £12,450 will fall due in July for payment, though most of the material is still in stock.

Direct labour is, he knows, increasing slightly as the general activity of the place grows, and although it amounted to about £4500 in June, he provides for £5500 in July to be on the safe side.

Factory oncosts, on the other hand, have been coming down steadily for some months, owing to the re-grouping of certain sections and the economies thereby achieved. £3700 should cover them for July; the company overheads due for payment will require £4700, and he allows £100 in cash for a special bonus recommended by the managing director to the board on behalf of one of the workmen who has just completed fifty years' service with the firm.

This will make a total of £26,450, being cash required out of the ordinary circulating stream.

In the next section he will have to allow for £600 for the payment of the preference dividend, £3000 for the interim ordinary dividend, and £2632 for taxation which falls due in that month. This sum of £6232 added to the internal payments gives a total of cash required to be paid out during the month of July of £32,682.

He then makes his forecast of incoming cash, starting with

B.R.9

E.F. CO. LTD
CASH FORECAST
Month of July, Year B

Month	July		August		September	
No. of Working Days	22		17		22	
Outgoing Cash	£	£	£	£	£	£
Internal Payments:						
Direct Material	12,450		4,000		4,000	
Direct Labour	5,500		4,400		5,200	
Factory Oncost	3,700		3,600		3,300	
E.T. Expenses	100		—		200	
Company Overheads	4,700	26,450	4,400	16,400	4,000	16,700
External Payments:						
Debenture Interest	—		—		—	
Preference Dividend	600		—		—	
Ordinary Dividend	3,000		—		—	
Taxation	2,632		—		—	
Other External Payments	—	6,232	—	—	—	—
Total Outgoing Cash		32,682		16,400		16,700
Incoming Cash						
Opening Cash at Bank	485		300		300	
From Sales	18,300		19,400		25,700	
Sundry Income:						
Property Rents	34		34		34	
Interest on Investments	—		25		—	
Other Sources	—		200		—	
Total Incoming Cash		18,819		19,959		26,034
Surplus		—		3,559		9,334
Deficit		13,863		—		—
Overdraft (Limit £25,000)						
Opening		14,732		28,595		25,036
Add Deficit		13,863		—		—
Deduct Surplus		—		3,559		9,334
Closing		28,595		25,036		15,702
Below Limit		—		—		9,298
Above Limit (in Red)		3,595		36		

Summary	Outgoing Cash	Incoming Cash	Deficit	Surplus
	£	£	£	£
July	32,682	18,819	13,863	—
August	16,400	19,959	—	3,559
September	16,700	26,034	—	9,334
Totals for Three Months	65,782	64,812	13,863	12,893
(Deduction)	64,812		12,893	
Net Deficit	970		970	

Check—

	£
Opening Overdraft	14,732
Add Deficit	970
Deduct Surplus	—
Closing Overdraft	£15,702

FIG. 39

£485 which was at the bank on 30th June. In July, August, and September he expects to receive cash from the sales for May, June, and July, and the sales during May amounted to £18,300. Apart from this he anticipates only the normal £34 per month which comes from the cottage property owned by the company, making a total of incoming cash of £18,819.

In the same way he sets out the outgoing and incoming cash for August and September, in each case making adjustments in his mind in accordance with the increasing or decreasing direct labour, oncosts or overheads, and not forgetting the fact that August contains the holiday week. At the finish, therefore, he arrives at the conclusion that in July there will be a deficit of £13,863, but in August and September margins of £3559 and £9334.

The company has an overdraft limit of £25,000 and the opening figure on the 1st July was £14,732. If, therefore, the shortage in July is to be met, it will entail the overdraft rising to £28,595, or £3595 above the limit. This excess, however, drops to £36 in August, and in September the higher sales during July bring in an excess of cash which reduces the overdraft to £15,702, or £9298 below the limit. In other words, although the overdraft limit will be exceeded in July, largely owing to the extensive payment for direct material, this excess will be amply wiped out a couple of months later.

Having completed the statement, the cashier takes it to the managing director and explains the position. The latter does not wish to approach the bank manager for permission to draw beyond the limit, and he therefore arranges for £6000 of the direct material to be paid for by two bills at thirty and sixty days, thus transferring £3000 of the cash payment to August and to September. This reduces the outgoing cash for July to £26,682 and leaves the overdraft at the finish of the month well inside the £25,000 limit.

At the end of the month the cashier prepares a new liquid margin statement for August, September, and October, and at the same time a comparison statement showing the original July forecast against the actual movement of money which occurred (Fig. 40). From this it will be seen that the actual closing figure of overdraft was £22,006, and this therefore becomes the opening overdraft figure for the August statement (Fig. 41).

E.F. CO. LTD.

CASH FORECAST COMPARISON

FORECAST AGAINST ACTUAL, JULY, YEAR B

	Original Forecast		Actual Payments		Actual Better	Actual Worse
OUTGOING CASH	£	£	£	£	£	£
INTERNAL PAYMENTS:						
Direct Material	12,450		6,643		5,807	—
Direct Labour	5,500		5,658		—	158
Factory Oncost	3,700		3,512		188	—
E.T. Expenses	100		—		100	—
Company Overheads	4,700	26,450	4,877	20,690	—	177
EXTERNAL PAYMENTS:						
Debenture Interest	—		—		—	—
Preference Dividend	600		600		—	—
Ordinary Dividend	3,000		3,000		—	—
Taxation	2,632		2,632		—	—
Other	—	6,232	—	6,232	—	—
TOTAL OUTGOING CASH		32,682		26,922	6,095	335
INCOMING CASH:						
Opening Cash at Bank	485		485		—	—
From Trade Sales	18,300		19,129		829	—
Sundry Income:						
Property Rents	34		34		—	—
Interest on Investments	—		—		—	—
Other Sources	—		—		—	—
TOTAL INCOMING CASH		18,819		19,648	829	
SURPLUS		—		—	6,924	—
DEFICIT		13,863		7,274		335
Deduction		7,274			335	
Check		6,589			6,589	
OVERDRAFT						
Opening		14,732		14,732		
Add Deficit		13,863		7,274		
Deduct Surplus	—	—	—	—		
Closing		28,595		22,006		
Below Limit		—		2,994		
ABOVE LIMIT (in Red)		3,595		—		

FIG. 40

Once again the cashier will forecast the figure of cash required, making such adjustments for August and September as up-to-date conditions require. The bonus of £100 was not paid in July, as the presentation was postponed owing to the illness of the individual concerned; it therefore has to be entered again for the month of August. In August a small dividend comes in from an investment, and the cashier reckons he will get £200 from certain plant which is being sold for cash as it is no longer required. The two bills for £3000 will have to be met in August and September,

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CASH FORECAST

MONTH OF AUGUST, YEAR B

Month	August		September		October	
No. of Working Days	17		22		21	
OUTGOING CASH	£	£	£	£	£	£
INTERNAL PAYMENTS:						
Direct Material	7,000		7,000		4,750	
Direct Labour	4,400		6,000		5,500	
Factory Oncost	3,600		3,400		3,300	
E.T. Expenses	100		—		—	
Company Overheads	4,400	19,500	4,250	20,650	4,250	17,800
EXTERNAL PAYMENTS:						
Debenture Interest	—		—		500	
Preference Dividend	—		—		—	
Ordinary Dividend	—		—		—	
Taxation	—		—		—	
Other	—	—	—	—	—	500
TOTAL OUTGOING CASH		19,500		20,650		18,300
INCOMING						
Opening Cash at Bank	382		300		300	
From Trade Sales	18,500		25,700		20,000	
Sundry Income—						
Property Rents	34		34		34	
Interest on Investments	25		—		—	
Other Sources	200		50		—	
TOTAL INCOMING CASH		19,141		26,084		20,334
SURPLUS		—		5,434		2,034
DEFICIT		359		—		—
OVERDRAFT (Limit £25,000)						
Opening		22,006		22,365		16,931
Add Deficit		359		—		—
Deduct Surplus		—		5,434		2,034
Closing		22,365		16,931		14,897
Below Limit		2,635		8,069		10,103
ABOVE LIMIT (in Red)		—		—		—

SUMMARY	Outgoing Cash	Incoming Cash	Deficit	Margin
	£	£	£	£
August	19,500	19,141	359	—
September	20,650	26,084	—	5,434
October	18,300	20,334	—	2,034
Total for three months	58,450	65,559	359	7,468
(Deduction)		58,450		359
Net Surplus		7,109		7,109

Check—	£
Opening Overdraft	22,006
Add Deficit	—
Deduct Surplus	7,109
Closing Overdraft	£14,897

FIG. 41

but the incoming cash from the sales of June, July, and August is evidently adequate to keep the overdraft below the limit. It should be noted that since in this business cash from sales is received two months after the invoices are sent out, the income for the third months will have to be forecasted and not actual. But although it is being forecasted early in the actual month concerned, there should be little difficulty in making a reasonable estimate. Moreover, working the cash forecast in this way for three months ahead gives the managing director two months' notice of what sales turnover he will require in order to keep his cash commitments properly covered.

Except, perhaps, in the arrangement of the schedules, there is little that is novel in what has been set out in this chapter. Such regular monthly cash forecasts are thought quite normal in most well-managed concerns, and where firms are managed on the basis of budgetary control the draft statements suggested here represent a summary of the "Finance and Cash Budget." But such cash forecasts as the author has met seldom interlock with the overdraft or cash-at-bank figure, and the labour of working to budgetary control principles is such that few firms can do so except the larger ones where full-time individuals can concentrate on the calculations, comparisons, and inquiries necessary.

Planning all Finance

In the smaller businesses, where most of the staff have all they can do to get through the day-to-day routine, every additional statement to be made out or record to be kept is another straw on the camel's back. But all the work that is being done will come to nothing if the internal finance is not properly controlled, so whatever else has to be put on one side until more staff is available to do it, the liquid margin statement should be made out regularly each month. Unless the management of a business is planned ahead, and the efforts of all concerned directed to running the business on that plan, it will soon be a case of the business directing the staff instead of the staff directing the business. Sales, production, personnel, development—all should be moving to a co-ordinated plan; and behind all these, creating and created, must stand the finance plan, without which the work of the rest may end in disaster.

One of the soundest remarks ever made about business was that of Professor

Hoagland of the Ohio State University: "Perhaps the most prolific source of failure of business promotions is a defective financial plan." Bad production management and bad sales management have slain their thousands, but faulty finance has slain its tens of thousands. The financial plan of a business should begin at the birth of the business. It may grow with the business in ambition, but it should not change in kind.*

Even in firms where cash is plentiful and the internal finance presents few difficulties, the preparation of the cash forecast usually has a tonic effect upon the management, especially where the senior departmental managers are encouraged to take their full share in maintaining the security of the undertaking. The average works manager or sales manager is far too apt to take the money for granted, and to pursue his own specialized objectives without much reference to the cash involved. But the basis of all industrial effort is money, and it is therefore a sound principle for this fact to be kept constantly before those by whose activities the business is maintained—whether owners, managers, or operatives.

* Collin Brooks in *Company Finance* (P. S. King & Son, Ltd., 1939).

CHAPTER XIII

THE ASSET VARIATION STATEMENT

In the foregoing chapters there has been a good deal of discussion of the different classes of capital to be found in a business and how each tends to move. From the practical management standpoint it is necessary to fix some point at which that movement can be inspected. The money is, of course, shifting all the time, but it is impossible to watch the day-to-day fluctuations, except in one or two special instances where some anticipated difficulty has to be avoided. Once a month, therefore, it is advisable to review the amount of money to be found in each category of the assets and the liabilities. This is already done in many companies where an interim monthly balance-sheet is made out. But the balance-sheet, as we have seen, is not adapted for management use, however convenient it may be as a long-established framework for recording the balances in the company's books. For the purpose of this monthly survey, therefore, a form has been drawn up, called an "Asset Variation Statement," and an example of this is shown in Fig. 42.

It will be seen that this is nothing more or less than a vertical balance-sheet, having four columns of figures. The first pair show the results at the current date and at the date against which the comparison is to be made. The two right-hand columns show the figures of increase or decrease in assets during the period.

There is nothing new in the idea of comparing two balance-sheets of differing dates, in order to note the changes shown. This can be done with a number of different intentions, such as—

(*a*) To observe the increase or decrease in net worth.

(*b*) To observe what new money has come into the business and where it has been invested.

(*c*) To observe the rise or fall in the overdraft, and the reasons for it.

(*d*) To observe increases or decreases in fixed and circulating capital, and the items which have contributed to these changes.

The assets variation statement will vary to some extent in its lay-out, in accordance with the intention behind it. Substantially

it remains the same—two vertical balance-sheets of different dates, set side by side for ease of comparison, with columns provided in which the increase or decrease of each item can be entered.

Now a balance-sheet records the balances at a certain date, and does not record any changes which may have occurred between two dates. The figures are static, not dynamic like those of the profit and loss account which accumulate month by month until the end of the year. It is useless, for instance, to attempt to watch the movement of the overdraft from the monthly balance-sheet figure. In January it may be £10,000; in February £9000, a reduction of £1000; yet between the two dates it may have been up to £20,000 and down again.

But if the movement of funds be watched month by month through the asset variation statement, the managing director can rest assured that no more than a month's freedom of movement is allowed to any item before it is once again reviewed, and the amount of its movement observed. This seems, in practice, to be a sufficiently satisfactory check, except in the case of the bank overdraft, and sometimes the cash balance. It may be advisable to watch these weekly or even daily.

Comparison Intervals

The longer the period between the two balance-sheets compared, the more probable will it be that unobserved changes which should have been watched will have occurred in the interval. But the comparison between the balance-sheet as finally audited at the end of the previous financial year and the balance-sheet at the end of the current month under review is bound to be of control value. For this reason many concerns always make up two asset variation statements, one showing the alterations since the previous month and the other the alterations since the end of the last financial year. The month-by-month comparison is the control document, from which adverse tendencies can be observed and corrected. The period comparison is a warning of how the new year is going, compared with the previous year, and as the months pass and the period lengthens until in its turn it makes a complete year, the managing director will have kept in continuous touch with the position.

The survey of the asset variation statement is based upon the

fact that (apart from a fresh issue of capital), new money can only come into the business by the making of profits or by borrowing. Money cannot be created out of nothing, at any rate in an industrial undertaking, and therefore as the funds available move backwards and forwards from section to section in accordance with the requirements of the business, if sufficient additional money to meet some need cannot be obtained from the incoming profit or from some lender, it must be obtained by liquidating some asset.

This statement, therefore, aims at establishing the extent to which the assets have increased or decreased during the period. For this purpose, in order to facilitate the addition of the various differences, an increase in liabilities is treated as a decrease in assets, and vice versa.

In this manner it is possible to add up all the increases and decreases in the assets and liabilities of various types, noting how the funds have moved in each instance of change. Money is obtained from a decrease of assets, and it is expended on an increase of assets. The difference between the total increase and the total decrease will be the change in the net worth for the period, usually to be found in the balance of the profit and loss figure, or in the general reserve.

If the finished goods stock has decreased, funds must have been obtained from the selling-off of that stock (assuming that no revaluation has occurred); if debtors have decreased, money which was previously outstanding has come in and therefore the decrease in the debtor asset has provided funds. Similarly, with the liabilities; if the creditors have decreased we know that a decrease in liabilities is equivalent to an increase in assets, and therefore it may be that some of the money obtained from the decrease in debtors has been expended in paying off creditors.

By taking simple examples of this nature the reader will soon find himself able to understand how the money is moving in the business. The only items liable to cause any confusion in the mind are in the case of provisions. A provision is a liability, and if, therefore, as is shown in Fig. 42, a taxation provision of £5000 is made, since an increase in liabilities is equivalent to a decrease in assets, this £5000 will be placed in the assets decrease column. The funds being obtained from the assets decreases, it follows that this provision of £5000 against probable taxation has provided

ASSET VARIATION STATEMENT

PERIOD OF TEN MONTHS, ENDING 31ST OCTOBER, YEAR B

Item	This Month October Year B	As at 31st Dec. Year A	Asset Increase	Asset Decrease
ASSETS	£	£	£	£
Cash in Hand and at Bank	462	187	275	—
Marketable Investments	5,000	5,000	—	—
Debtors	152,397	135,411	16,986	—
Finished Goods Stock	17,844	32,197	—	14,353
Work-in-Progress	65,311	52,484	12,827	—
Material Stocks	11,463	7,441	4,022	—
Land and Buildings	127,439	131,886	—	4,447
Plant, Machinery and Tools	85,637	91,432	—	5,795
Office Fixtures and Fittings	1,636	1,749	—	113
Goodwill	50,000	50,000	—	—
Patent Rights	25,000	25,000	—	—
Preliminary Expenses	—	1,455	—	1,455
TOTAL, ALL ASSETS	542,189	534,242		
LIABILITIES			(Reversed)	
Creditors	106,433	69,845	-	36,588
Provision for Price Reduction	35,865	65,432	29,567	—
Provision for Taxation	5,000	—	—	5,000
6% Debenture Stock	110,000	110,000	—	—
Loans from Directors	19,500	15,000	—	4,500
Bank Overdraft	55,000	35,000	—	20,000
TOTAL, ALL LIABILITIES	331,798	295,277		
TOTAL INCREASES AND DECREASES (*deduct*)			63,677	92,251 63,677
NET ASSET DECREASE				28,574
REPRESENTED BY ALTERATION AS FOLLOWS IN -				
NET WORTH				
ISSUED CAPITAL:				
Ordinary Shares	100,000	100,000	—	—
5% Preference Shares	100,000	100,000	—	—
GENERAL RESERVE	-	20,000	—	20,000
PROFIT AND LOSS BALANCE	10,391	18,065	—	8,574
TOTAL	210,391	238,065		28,574

FIG. 42

NOTE. The reader will observe that in the Statement shown above all sub-headings and sub-totals have been omitted. This is because in the A.V.S. the balance-sheet figures are viewed solely from the aspect of individual increase or decrease. Any survey of total variations in the various categories of asset or liability would be made from the balance-sheet itself. In the A.V.S. such sub-totals have little or no value as their changes cannot be shown in the asset increase or decrease columns.

£5000 of money which may have been expended in one way or another.

It is not altogether easy to see how the creation or the increase of a provision should provide money which can be spent on other items. Perhaps the simplest way is to consider the provisions as strong-boxes labelled with their various titles, the cashier having the right to borrow the money from them should necessity arise. In this case, therefore, the cashier will have put £5000 into the provision strong-box labelled "Taxation," and then borrowed most of it to pay for the increase in material stocks. Some day, of course, he will have to replace that borrowed money when the taxation falls due, but for the time being he can use it in the business.

The asset variation statement should be accompanied by a movement of funds statement, as shown in Fig. 43.

MOVEMENT OF FUNDS STATEMENT

COMPARISON BETWEEN POSITION AT 31ST OCTOBER, YEAR B AND AT BEGINNING OF FINANCIAL YEAR, 31ST DECEMBER, YEAR A

	£	£
FUNDS HAVE BEEN OBTAINED FROM—		
(*a*) OWNED (ASSET) SOURCES BY		
1. The sale of Finished Goods stock	14,353	
2. Depreciation of Plant and Machinery	5,795	
3. Depreciation of Land and Buildings	4,447	
4. Writing off Preliminary Expenses	1,455	
5. Depreciation of Fixtures and Fittings	113	
		26,163
(*b*) BORROWED (LIABILITY) SOURCES BY—		
1. Increasing Creditors	36,588	
2. Increasing Bank Overdraft	20,000	
3. Making Provision for Taxation	5,000	
4. Further Loans for Directors	4,500	
		66,088
(*c*) MAKING PROFITS IN TRADING		nil
TOTAL FUNDS OBTAINED		£92,251
THE ABOVE FUNDS HAVE BEEN EXPENDED ON—		
(*a*) INCREASING ASSETS BY—		
1. More Debtors	16,986	
2. More Work-in-Progress	12,827	
3. More Material Stocks	4,022	
4. Increasing Cash Fund	275	
		34,110
(*b*) DECREASING LIABILITIES BY—		
1. Meeting Price Reduction		29,567
(*c*) MEETING LOSS ON TRADING		28,574
TOTAL FUNDS EXPENDED		£92,251

FIG. 43

The M.o.F. Statement has proved one of the most rewarding items in the "diagnosis" stage of the management accountant's monthly work, since it shows so clearly how the money has moved since the last balance-sheet, and therefore makes it easy to assess whether that movement is favourable or unfavourable.

If the movement be studied, it is obvious that the best source from which to obtain funds is by the making of profits, which is new money coming into the business. Next would come the liquidation of fixed assets, which implies the unfreezing of the firm's money, and lastly the acquisition of new money by borrowing. The wisdom or unwisdom of the expenditure recorded will depend upon circumstances and the financial policy of the Board—whether to increase assets or decrease liabilities.

Experience has shown that this statement often comes as quite a shock to those who have not previously adopted it. It cannot, of course, show any intermediate movements that may have occurred between the two balance-sheets compared, and only records the starting and finishing positions. Where a concern is running smoothly with good financial handling it is most interesting to watch how the shrewd decisions of a managing director with a good money sense are reflected in the M.o.F. Statement in a consistently favourable manner.

Secret Net Worth

It has been suggested that the asset variation statement should, in addition, show the "Secret Net Worth" of the company, in which all assets subject to secret reserves should be assessed at their current value. This might not be considered advisable by some industrialists on account of its private nature. On the other hand, it should be borne in mind that in the financial management control of an industrial undertaking, it is of the utmost importance that the managing director should know the true facts of the case, even if these are written out by hand by the chief accountant in a lock-and-key ledger for the managing director's eye only.

Internal reserves—the so-called secret reserves of a business—are usually of a somewhat vague nature, and since the statement of secret net worth calls upon the accountant to state clearly what those secret reserves are at the date of the statement, it might provide a reliable view of the situation. It would be understood that the assessments were subject to contingencies. Investments

standing in the public balance-sheet at cost may be worth at the date of the statement almost twice that figure, and if, therefore, they were sold, the cash would be available. Similarly with under-valued stocks or over-valued creditors. It would seem sound practice, therefore, for the managing director to have at his disposal each month a careful assessment by the accountant of the difference between the net worth as shown by the balance-sheet figures and the secret net worth including secret reserves—

STATEMENT OF SECRET NET WORTH
AS AT 31ST OCTOBER, YEAR B

	£	£	£
Net Worth, as stated			210,391
SECRET RESERVES (subject to contingencies)			
In Investments (held at cost)		15,000	
In Debtors		23,500	
In Stock and Work-in-Progress Valuation—			
Material Stocks	1,250		
Work-in-Progress	—		
Finished Goods Stocks	3,500	4,750	
In Land and Buildings		35,000	
In Creditors		18,500	
TOTAL SECRET RESERVES			96,750
SECRET NET WORTH			307,141
Secret Net Worth at 31st December, Year A			326,465
An ~~INCREASE~~/DECREASE of			£19,324

FIG. 44

The asset variation statement should always be studied from a fourteen-column comparison sheet in which the figures for the different items are entered month by month. In this, as in all other management statements, the comparison sheet is more useful for control purposes than the monthly sheet, since it enables the long-term view of the movement to be watched. Debtors and creditors will rise and fall, but from the comparison sheet it can be seen whether that rise or fall has been going on in one direction for some time, or whether it is merely a normal fluctuation. The asset variation statement, therefore, serves two purposes. First, as a prime document from which the month's figures can be entered on the comparison sheet, and, secondly, as a statement of the movement of funds in the business, with the explanation set out in simple language, issued at monthly intervals so as to provide a regular survey of the position.

SECTION IV

MATTERS ARISING

CHAPTER XIV

OVER-TRADING AND UNDER-TRADING

THE sales turnover is the yard-stick of the commercial activity of the company, and when that turnover is examined, it will be found to be in one of three conditions, in all of which the financial problems connected with the trading are of a different nature. These conditions are—

(*a*) Normal turnover.
(*b*) Rising turnover.
(*c*) Falling turnover.

(*a*) NORMAL TURNOVER

Since nothing in business is ever really normal, the term is used here to denote that the M.A.T. of the sales turnover fluctuates monthly within a margin of, say, about 3 per cent to 5 per cent above or below its position at the beginning of the financial year. In such conditions the circulating capital will flow steadily round and round without much variation, the profit-margin on the sales-debtors providing an adequate surplus to meet the various sums that have to leave the circulation in out-payments. Temporary accommodation by way of bank overdraft will rise and fall, whether the business is seasonal or straightforward, in the former case a rising overdraft being secured by the increasing stock and work-in-progress awaiting quick sale when the season comes round. (The flow-speed in such cases will vary with a predetermined monthly normal.) In circumstances such as these the burden of the cashier is an easy one; the company pays its way regularly and no violent financial fluctuations are likely to arise.

A normal turnover does not mean a static—or stagnant—business. No business can ever be static—if it is not moving forward, it is bound to be falling back. It must for ever be improving its products, its selling methods, and its general organization; watching

its existing markets and finding new ones, keeping a wary eye on competitors and perpetually alive to the change in the fancies or requirements of its customers. Only by doing this can it maintain a normal or stable turnover, once it has reached the optimum development beyond which it would be unwise to go. If it fails in its creative activity, it will gradually begin to fall back, living, it may be, for a time on its past reputation and goodwill, but inevitably heading downwards until its decadence shows by the turnover beginning to fall too. After that, disaster, unless a fresh grip is taken on the whole concern, is only a matter of time.

Seasonal Effect

The fact that a business is a seasonal one does not affect the steady nature of the sales turnover, as recorded by the monthly moving annual total. Since in making up the M.A.T. the new monthly result is added and the corresponding monthly result in the previous year subtracted, the seasonal effect cancels out. Figs. 45 and 46 show an example of a steady seasonal turnover in a concern where sales rise in the winter and fall in the summer. It will be seen that although the monthly sales vary between £10,174 and £23,114 in year B (227 per cent), the moving annual total only varies between £202,213 and £209,146 (3·4 per cent), and the maximum variation at any month is 1·3 per cent.

Incidentally, this example is a good demonstration of the value of the moving annual total for showing the gradual movement or trend of any factor in a business. By no other method would it be so easy to see that the sales of the company reached a peak in June, year B, and subsequently fell away for six successive months—a clear indication that something is going wrong somewhere. The year ended with a total sales turnover of £202,213, which was only £889 less than the total for year A. On the surface, therefore, it might easily be assumed that the turnover had been maintained, and all was well. But a trend showing six successive monthly falls in a seasonal concern, however small those falls may be, is proof that there is a factor of some kind which is causing the company's business to fall off. Unless this factor is traced and eradicated, the fall may soon assume more dangerous proportions.

Trading under steady turnover conditions presents only the normal day-to-day financial problems that occur in any industrial

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		Current Month	Moving Annual Total	MOVING ANNUAL TOTAL					
				Variation Month to Month			Variation from 31st December, Year A		
				Up	Down	%	Up	Down	%
		£	£	£	£		£	£	
Yr. A	J	21,752							
	F	22,613							
	M	18,619							
	A	17,343							
	M	15,171							
	J	11,347							
	J	12,863							
	A	12,141							
	S	14,004							
	O	16,376							
	N	18,996							
	D	21,847	203,102						
Yr. B	J	22,936	204,286	1,184	—	·6	1,184	—	·6
	F	23,114	204,757	471	—	·2	1,655	—	·8
	M	21,343	207,481	2,724	—	1·3	4,379	—	2·2
	A	18,179	208,317	836	—	·4	5,215	—	2·6
	M	14,364	207,510	—	807	·4	4,408	—	2·2
	J	12,983	209,146	1,636	—	·8	6,044	—	3·0
	J	10,174	206,457	—	2,689	1·3	3·355	—	1·7
	A	11,836	206,152	—	305	·2	3,050	—	1·5
	S	13,842	205,990	—	162	·1	2,888	—	1·4
	O	15,217	204,831	—	1,159	·6	1,729	—	·8
	N	17,842	203,677	—	1,154	·6	575	—	·3
	D	20,383	202,213	—	1,464	·7	—	889	·4

FIG. 45

concern. It is where turnover is rising or falling that the specialized financial pitfalls can be found.

(*b*) RISING TURNOVER

Where the turnover is expanding a different set of problems arises—problems which can be, and often are, dangerous to the point of bringing about the collapse of the business. More particularly are they dangerous because they are of very gradual growth, and in circumstances which have every superficial appearance of prosperity. It is not at all unusual for the unwary—or too optimistic—manager to be lured on by the will-o'-the-wisp of expanding business and increasing profits, until

he finds himself entangled in difficulties from which there may be no escape. Yet the circumstances that lead to this position are simple enough.

The day-to-day liabilities must, of course, be paid in cash and (where no cash reserve exists) the money wherewith to do this returns to the company from the sales-debtors. Since the most usual commercial credit terms are payment in thirty days after

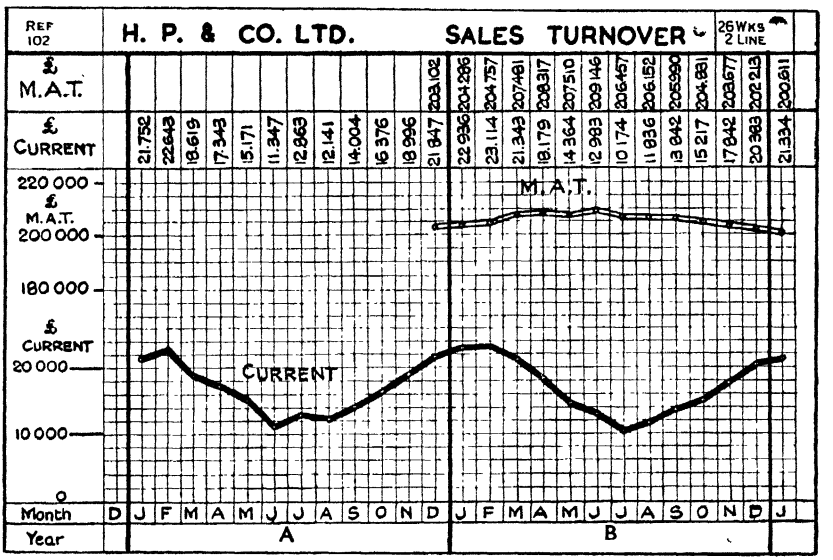


FIG. 46

the date of the invoice, and such terms are seldom closely adhered to, it is safest to assume a lag of two months between the date of the invoice and the receipt of the cash. In such circumstances the sales turnover invoiced in January would return from the debtors in cash in March, that for February in April, and so on. If the firm is expanding its business, therefore, there is a danger that the expenses which have to be paid in cash in March will be greater than the cash returning from the January sales. A growing wages bill will have to be paid week by week, and, since the material must be obtained in advance to provide for this developing production of goods, the invoices for these increased supplies would probably have to be met only slightly later than the increased wages. Most of the establishment charges would

probably not increase, or only slowly, but for the purpose of this example it is assumed that an increase in sales effort is necessary to ensure the expansion required, and therefore the percentage of profit made remains stable throughout the expansion process.

Fig. 47 gives the results of three firms with a sales turnover expanding in the course of a year from £10,000 per month to £19,000 per month.* Company A makes 5 per cent, Company B 10 per cent, and Company C 15 per cent profit on the sales turnover. It is assumed that the companies were working under static turnover conditions of £10,000 per month until January; from February until October the turnover expands by £1000 per month, stabilizing itself in October at £19,000 per month.

It must be borne in mind that these three companies are making increasing profit-sums throughout the period. Company A in January makes 5 per cent on a turnover of £10,000, or £500. In February it makes a profit of 5 per cent on £11,000, or £550; in March a profit of 5 per cent on £12,000, or £600, and Companies B and C, making 10 per cent and 15 per cent profit respectively, do proportionately better. But we are speaking here not of profits but of cash available to pay commitments, and although Company A has made a profit in March of £600 it has to meet commitments for £11,400 and has only received in cash from its January sales-debtors the sum of £10,000—a deficit of £1400. As the succeeding months pass, this deficit continues each month, owing to the lag between the returning money and the current commitments, although, as will be seen, the deficit gradually grows less owing to the monthly expenditure rising at the rate of £950 per month and the cash receipts, two months in arrears, rising at the rate of £1000 per month.

For Company A, therefore, the problem consists of whether a source of temporary finance can be found from which to make good the deficit until such time as the stabilization in December brings the full £950 profit per month in regularly. Altogether the deficit reached £9800 before the first full month of profit in December, and Company A has been going through the process

* In actual commercial working the results would never be as regular as those shown in the example. Payments out of the circulating capital (debenture and loan interest, dividends, capital expenditure, etc.) are irregular in their incidence, and the monthly cash surplus and deficit would therefore fluctuate. The example is purely academic, drawn to show the lag and slow recovery of the cash receipts, omitting extraneous calls, which would inevitably make the picture worse.

Month	Per Calendar Month		COMPANY A			COMPANY B			COMPANY C		
	Sales Turnover	Cash Receipts	Cost 95% of Sale			Cost 90% of Sale			Cost 85% of Sale		
			Monthly Expenditure	Cash Surplus	Cash Deficit	Monthly Expenditure	Cash Surplus	Cash Deficit	Monthly Expenditure	Cash Surplus	Cash Deficit
	£	£	£	£	£	£	£	£	£	£	£
Jan.	10,000	10,000	9,500	500	—	9,000	1,000	—	8,500	1,500	—
Feb.	11,000	10,000	10,450	—	450	9,900	100	—	9,350	650	—
Mar.	12,000	10,000	11,400	—	1,400	10,800	—	800	10,200	—	200
Apr.	13,000	11,000	12,350	—	1,350	11,700	—	700	11,050	—	50
May.	14,000	12,000	13,300	—	1,300	12,600	—	600	11,900	100	—
Jun.	15,000	13,000	14,250	—	1,250	13,500	—	500	12,750	250	—
Jul.	16,000	14,000	15,200	—	1,200	14,400	—	400	13,600	400	—
Aug.	17,000	15,000	16,150	—	1,150	15,300	—	300	14,450	550	—
Sep.	18,000	16,000	17,100	—	1,100	16,200	—	200	15,300	700	—
Oct.	19,000	17,000	18,050	—	1,050	17,100	—	100	16,150	850	—
Nov.	19,000	18,000	18,050	—	50	17,100	900	—	16,150	1,850	—
Dec.	19,000	19,000	18,050	950	—	17,100	1,900	—	16,150	2,850	—
Total for 12 Months	183,000	165,000	173,850	1,450	10,300	164,700	3,900	3,600	155,550	9,700	250

FIG. 47

of what is known as over-trading throughout the whole year. It is likely to continue doing so, as ten further months will be required before the £9800 can be repaid.

There is no need to elaborate the picture shown by Companies B and C. In the case of Company B over-trading occurs for a period of eight months, but the sum involved is not so serious, and at the end of the year the company should have £300 cash more in hand than at the start. Company C, making 15 per cent profit on its turnover, shows a much more favourable picture. Only two months show a slight deficit, and on account of its higher profit margin the company can finance its own expansion without being at a loss for cash resources, unless other calls arise where the cash is needed, perhaps for taxation or dividends.

The Danger of Over-trading

The danger that lies in over-trading—in other words, in attempting the expansion of a business without an adequate background of liquid capital—is that the management, dazzled by the opportunity offered by the market and the profits undoubtedly being made, do not appreciate that the cash return during the expansion period inevitably lags behind the expenditure. As a result, as wages must be paid weekly and salaries monthly, such cash as comes in is paid out in those wages, salaries, and other unavoidable immediate expenses, only the residue being used to pay the increased creditors. Naturally this leads to a growing proportion of the creditors remaining unsatisfied, and after a few months complaints begin. If Company A has not been able to obtain temporary accommodation from its bank—possibly due to that accommodation being already extended up to the limits justified by the security—by about May or June the managing director will be puzzling how he can meet creditors' demands and at the same time pay wages and other charges. It may be noted that under expansion conditions financing by commercial bills usually means an early suicide, since by the time the bills mature, there is even less money available than when they were accepted.

The usual first step downwards on the Avernian slope of over-trading, after creditors have been fobbed off to the limit, is to press the debtors for early payment, special discounts being sometimes offered in return. This is naturally a waste of the

company's money, but may be justified where an intense cash shortage exists. Then begins a period of strain, worry and discomfort which cannot be imagined by those who have never experienced it. Every post is eagerly watched for incoming cheques; the cashier painfully builds up each week a sum sufficient to pay wages, and the question of whether the salary cheques will go out at the end of the month—or, if so, whether they will be honoured —becomes a matter for anxious discussion among the staff. Rumours of the company's difficulties soon get about, summonses and writs arrive, bailiffs begin to make their appearance in the waiting-room, and the penultimate stage of disaster comes usually in the shape of *pro forma* invoices for further material supplies. This accelerates the breakdown, since now the company can obtain no new material without paying for it first, and at the same time it must try to satisfy old creditors for material previously received and used up.

After that stage it is usually only a few weeks before some creditor applies for an order for the liquidation of the company, or perhaps the desperate managing director, facing the issue, calls his creditors together, and tries to come to some arrangement with them in order to avoid the complete collapse of the business. If he fails, a receiver or liquidator is appointed, and the concern is wound up. If he succeeds, he may have to face as a penance for his lack of experience and managerial judgment a long period of slow, careful re-building of the financial structure of his business.

It is a tragic story, with its aftermath of waste, frustration, and the unhappiness and worry which descend upon the lives of the operatives and staff thrown out of employment—and all quite unnecessary, if the elementary principles of financial management had been understood.

An Apparent Anomaly

Many individuals spend their lives in industry without realizing that as many companies go into liquidation through doing too much business as through doing too little. The whole affair appears to be a complete anomaly. A concern has a good product, ample markets, excellent opportunities for doing well, and is actually making good profits—yet the machine seems to be clogging itself, and eventually breaks down. It is, in fact, the inevitable result of commercial expansion when working with a

profit-margin which in itself is insufficient to supply the cash necessary to cover that expansion, and where no additional source of temporary funds is available to take its place.

Some firms, owing to a shortage of owned circulating capital, continue for years to exist in all the discomfort of over-trading conditions, although their turnover is static and not increasing. A company of this type will withhold payment of its creditors up to the maximum point beyond which disaster would be inevitable —and then continue trading with that forcibly borrowed creditor money. Regular payments are made monthly, but the excess owing is never paid off, if it can be avoided. Where a bank loan or a debenture exists, the commercial creditor may be reluctant to force a liquidation, lest he should find that others having prior claims to his obtain their money, whilst he does not. He therefore contents himself with—not unnaturally—grumbling, or giving poor service, and sometimes insists on interest being paid on his debt once the commercial credit term is over-stepped.

But the firm doing business on these lines has a very uncomfortable existence. The managing director may congratulate himself on trading with other people's money, but the cashier spends half his time at the telephone placating creditors, the buyer has for ever to be finding new sources of supply (as the old ones have black-listed him), and the works manager is perpetually in difficulties with shoddy material, delay in delivery, and no sympathy or help when he wants something in an emergency. The larger suppliers will prefer to continue deliveries, after coming to an understanding as to credit limits. But the smaller suppliers cannot wait for their money, and a firm needs the smaller suppliers, often local men, just as much as the larger ones. And so the trading goes on, until the gradual inflow of profit eases the position back to normal, or the managing director's ambitions finally push the business so deeply into difficulty that it collapses.

Safeguards

If over-trading on a rising turnover is so dangerous, and so easy to slip into unawares, how can it be guarded against? The answer seems to be this: so long as a company can pay its way regularly according to the commercial credit terms observed in its line of business, it is not over-trading; the moment it ceases to be able to do this, over-trading has begun. Wages must be paid

week by week; establishment charges must be paid weekly, monthly, quarterly, or half-yearly; fixed charges (interest on borrowed money) must be paid half-yearly, and taxation also. Of the obligatory expenses there remain only the creditors. If, after paying all the rest, the payments to creditors can be maintained at their due date, all is well. But when over-trading begins—i.e. when a shortage of circulating capital makes itself felt—the first place where it will become evident will almost certainly be in the creditor payments. Therefore if the percentage of creditor money in the circulating capital rises above normal, over-trading will have begun.

It remains for the managing director to decide the extent to which he can borrow creditors' money without harming his business. He should not forget that the harm starts long before the dunning letter stage. A good name in the trade for prompt payment invariably results in good material, regular supplies, a ready ear for complaints or suggestions, and, above all, willing help in time of emergency. But there is naturally a working margin, a subtle difference between the nominal commercial payment date and the actual, which can be established and maintained without harm arising (other than the loss of discounts). The managing director, who, owing to shortage of working capital, is forced to use as much creditor money as he can get, should decide—after careful investigation—what this can safely be. But it is far better to insist on regular creditor payments on the commercial date, watched by the percentage of creditor money in the circulating capital. If that figure begins to rise for two consecutive months, an immediate inquiry should be instituted, and an effort made to bring the percentage down by one means or another, if no good reason for the increase can be found.

A Long-term Affair

Though over-trading is such a common cause of the collapse of a business, it is, like all financial illnesses to which industrial undertakings are liable, a long-term affair. Production and distribution may provide sudden emergencies which have to be tackled promptly if serious loss to the company is to be avoided. In production the writer has experienced a cloud-burst which put the greater part of six hundred machines into a foot of water;

a stock error which allowed forty-eight hours' grace before a factory employing four hundred would have to close down entirely; and a blow-out on the main switchboard. In distribution, he has experienced the disappearance of the whole (110 tons) of his firm's exhibits somewhere en route to an international fair in France; the total failure of a new machine to function on the morning of an official Admiralty trial; and the discovery on a rival's stand at a show of a model which was infinitely better than the latest type then evolving in the firm's experimental department. All these are sudden things which the manager has to deal with quickly and effectively, if loss to his company is to be avoided. But with the internal finance the harm is a slow-motion affair; its early symptoms are easy to recognize and there is a wide margin of time during which matters can be controlled and brought slowly back to normal again. It may mean a tight hand on the reins, a restraining of ambitions, and the courage to refuse to take what appear to be opportunities of quick profits and rapid expansion of the business. But that, surely, is as much the duty of the manager in respect of finance as it is the duty of the works manager to ensure that his machinery is properly and economically occupied. Failure through over-trading is not a sudden affair due to external and uncontrollable circumstances—it is due, without exception, to bad management.

(*c*) Falling Turnover

In these conditions the problem is more of an indirect nature; but none the less trouble will arise if the position is not watched and carefully handled. Where the business is falling off, the sales-debtor cash returning at two months lag will be more than the current sales turnover, and therefore still more than the current expenditure. Consequently we meet that other apparent anomaly that when trade is falling off, cash is plentiful.

If the managing director is wise, he will open a separate account at the bank and place in this account each month those sums representing the circulating capital which, for the time being, cannot be used owing to diminishing trade. He is at liberty to take the whole of the profit for whatever purpose he may require it, but the sum representing the wages, materials and charges of the vanished turnover should be banked for the time being.

As trade continues to fall away the company may reach its

break-level point, and subsequently begin to make monthly losses. Now a loss means that money is draining out of the circulation, and if, therefore, the managing director is to maintain the flow of circulating capital, even at its reduced rate, he will have to make good the wastage from somewhere. His alternative is either to cut down the charges of the business drastically to meet the new turnover level, or to draw on his No. 2 Account where he has banked the excess circulating capital for the time being.

Expense Reduction Difficult

Therein lies the principal danger of under-trading. Managing directors are invariably most reluctant to reduce charges when they represent wages and salaries of operatives and staff, and therefore the natural tendency is to make good the losses out of what is really circulating capital. For the time being this does no harm, as the money is not needed for trading; the danger arises when the depression has passed or the temporary trading difficulty has been overcome. The company should then revive, and its turnover will once more begin to increase. The circulating capital which had gone out of action will be required again for trading purposes.

The managing director will naturally aim at regaining, as soon as possible, his previous figure of sales turnover. If he was in touch with the movement of the money in his business, he will be aware of his previous amount of circulating capital and the speed at which it had to move to return him the profit that he used to make. He will know his existing figure of circulating capital and that will give him an immediate answer as to (*a*) what the speed of his reduced circulating capital will have to be to return him the same sum of profit, and (*b*) if that is out of all reason, what should be his limiting figure of sales turnover until accruing profits enable him to expand it again to its former level. This will insure him against over-trading.

But since circulating capital flow-speed and make-up is a new development in financial management, it is more likely that he will apply all his energies to regaining his former sales turnover without studying the effect upon his financial structure. The amount expended in meeting charges during the period of depression will no longer be available and it may come as a surprise to

him that long before he is approaching his former sales turnover figure, he is beginning to find himself short of cash to meet his obligations.

Under-trading is, admittedly, not such a serious risk as over-trading, since the danger lies, not in the collapse of the company through insufficient turnover, but in its collapse at a subsequent date, through over-trading, after the recovery has set in.

Under-trading Through Inefficiency

There is another aspect of under-trading, where a company finds its sales turnover steadily falling away, not because of an industrial depression which will only last for a short period, but because the products sold are out of date, or unsatisfactory, or too expensive to meet competition. The same state of affairs as in the temporary under-trading case will manifest itself—a surplus of cash at first, followed by losses in which the surplus funds will be exhausted. This type of under-trading ends in liquidation as soon as the money has diminished to an extent that will not allow obligations to be met. The remedy lies in an early recognition of the reasons for the declining turnover, followed, without delay, by effective measures to remove the causes of the trouble, whether personal or impersonal.

Under-trading and over-trading are fundamentally different in their incidence. The former is due to circumstances over which the managing director has little or no control, or else to inefficient management; the latter is a policy deliberately adopted, though whether with an understanding of its implications, or not, is another matter.

If the compulsory winding-up of a private or public company involved a public prosecution, failure through over-trading would be less prevalent than it is. It is almost always avoidable. The predatory individual who reckons bankruptcy a profitable event and lays his plans well ahead, so that he can personally profit out of the losses of his creditors, is as much of a criminal as the solicitor who embezzles his client's funds, or the confidence trickster. The finance in a business does not disappear overnight, or melt away in a few months. All financial difficulties in business (apart from gambling) are of long-term origin and development, and trouble ahead can be discerned long before it is reached. The attitude to-day is that stupidity or lack of judgment, if not deliberately

directed to nefarious ends, cannot be considered a criminal offence. But a trustee who, through stupidity or lack of judgment, loses funds entrusted to him, remains none the less liable—and the directors of a business are the trustees of the shareholders' funds. Why, therefore, should they escape unpunished when those funds have been lost? Only because it has been too easy hitherto to plead that the collapse of the business was brought about by external circumstances over which the directors had no control. Yet, if the story of the internal finance movement over the previous two or three years were clearly set out, undoubtedly it could in almost all cases be proved that the directors' financial policy had been ill-judged, that ample evidence of that fact could have been seen for many months and that the final collapse had been due, not to circumstances over which the board had no control, but to the fact that the board did not possess that experience of practical financial management which should have been one of the principal qualifications for their appointment.

CHAPTER XV

ADDITIONAL FUNDS

ALMOST invariably at some stage in the life of any business there arises a need for additional money. In the first instance this will be for temporary funds in order to increase the trading scope, and later on funds will probably be wanted for further investment in the fixed capital, in the way of more buildings, plant, and machinery. In war-time many factories are laid out complete in every respect for the express purpose of manufacturing a definite quantity of a certain product, but such instances are rare in the normal course of industry. The more usual story is for the firm to start in a modest way and gradually grow, adding to its means of production by buying equipment out of the undistributed profits. This process, though safe, is slow, and therefore it frequently happens that the managing director begins to look round for a source of additional funds for some specific purpose. The manner in which they are obtained may have a considerable influence on the future success or failure of the concern.

Such sources can be roughly divided into—

(*a*) Additional funds obtained from inside the business,
(*b*) Additional funds obtained from outside the business.

(*a*) ADDITIONAL FUNDS OBTAINED FROM INSIDE THE BUSINESS

The circulating capital already in the company's balance-sheet is to be found, as we have seen, in the cash and investments, the debtors, and the stock and work-in-progress; the fixed capital is sunk in tangible, intangible, and fictitious assets. If these sections be carefully examined each in turn, it will seldom be found that the search for money not being effectively utilized inside the business will go unrewarded.

Cash and investments are, of course, money, and it is not likely, if there is a need for cash, that the investments will not already have been realized. Debtors, however, represent a certain sum of money outside the business in other people's hands.

Debt Collection

If, therefore, the average time-period of debtors outstanding month by month can be reduced, the money so retained inside the circulating flow will provide more liquid capital. Commercial credit practice in the particular industry will determine to a great extent the normal sum outstanding in debtors at the end of each month, but some firms are not particularly careful about debt collection and instances can be found where notable sums of money are left in the debtors' hands, although the payment date is overdue and the money should have been collected.

In some cases, where a company does not suffer from a shortage of cash, this long credit is given intentionally in order to maintain good relations with the debtors, who may be in the market again shortly for further purchases. Where additional cash is needed, the normal figure of debtors should be worked out and if, at the end of the month, the debtor figure shows above the normal, an investigation should be made.

In this, as in most other actions which take place in the course of industry, there are disadvantages to be avoided as well as advantages to be gained, as has been mentioned in an earlier chapter. If, on the preliminary investigation, the sum outstanding in debtors proves higher than would be expected from the normal trade terms and it is decided to aim at a lower figure in the future, the debt collection procedure should be placed in the hands of a responsible member of the staff, who understands the niceties of conduct involved.

There is a further method of reducing the figure of debtors and so shortening the period during which the circulating capital lies out of the business. That is by the firm drawing bills which are accepted by a customer. The practice of using commercial bills will be dealt with later in this chapter, but in some classes of business the customer, on receipt of the goods, will accept a bill for the sum involved. This can be discounted through the bank, provided the acceptor's financial standing is sound, and the money involved, less the discount, will then immediately return into circulation. By this practice the money fund represented by the outstanding trade debtors is reduced to a minimum and is not, therefore, available as a source of supply of future cash. This is a minor disadvantage, since obviously anything which can

decrease the idle period of circulating capital with safety must be sound practice.

Stock and Work-in-progress

The third reservoir from which stagnant circulating capital can perhaps be drawn is the stock and work-in-progress, and it must be very seldom indeed that with a little better organization and more energetic management, money—and in some cases quite a considerable sum—cannot be extracted from these hiding-places. Raw material stocks are frequently excessive and often contain castings, forgings, and, above all, bar in bastard sizes, bought for some specific purpose and never used. There must be extremely few material stores, whether in engineering or any other trade, where obsolete or surplus material is not carefully preserved—usually with the naive comment that it has been written off stock long ago, and therefore will cost the firm nothing if it can in any way be worked in. Material of this nature can always be sold, and in the case of bar, plate, or sections, many merchants would be glad to take it over at a reasonable price, provided quality is known. Even if the cash offered is less than the nominal book value, it is better to have £5 circulating in trade than £10 lying idle from year's end to year's end. At the annual stock-taking the raw material stock should always be most carefully scrutinized, and every item not required for current production (either as components or spares) should be turned back into cash.

Another aspect of the raw material stocks in which money can often be locked up is in lack of numerical balance in components of a unit. The effective stock is governed by the lowest component item, and whilst supply is bound to be determined to some degree by the economic batch-size at the supplier's, more often than not stocks are seriously inflated by this lack of balance. If 400 pairs of back axle shafts and 20 back axle casings are on stock, the maximum number of back axles that can be assembled is 20, and 380 pairs of shafts are redundant, representing money frozen for the time being. The writer has analysed stock-sheets which showed three years' supply of some components, and none at all of others. Such bad practice can, of course, be eliminated to a considerable degree by better-organized material control, and the money invested in material stock cut down to minimum working limits.

The work-in-progress presents a more difficult problem, but is more frequently a source of unused money than perhaps any other section of the company's activities. To maintain a certain sales turnover requires a certain flow of manufacture, and the shorter the period from the start of the work until the final dispatch of the goods, the quicker the money represented by the cost of that manufacture will turn over. Every managing director of a manufacturing company should know at least within 10 per cent the figure of work-in-progress which should be passing through his factory in order to achieve a certain turnover, and as the monthly accounts return the figure of work-in-progress at the end of each month, a check should be made as to whether it is above or below normal. If it is above normal, then money which should be earning a proper return is being locked up; if it is below normal, then there is a hitch somewhere and the sales turnover, which is the life stream of the business, will almost certainly be throttled before long.

Few manufacturing businesses give enough attention to the work-in-progress, or attempt to control the use of the circulating capital which is sunk in this item. It is not at all unusual to find a firm endeavouring to obtain a further advance of, say, £10,000 from the bank, and actually offering the figure of work-in-progress as part of the evidence of asset cover for that advance. Yet all the time, with a little energy and more knowledge of production control and organization, the extra £10,000 could be obtained out of the work-in-progress without having to pay interest to the bank on further money.

One disadvantage of endeavouring to cut the work-in-progress to the lowest possible figure is that sufficient time may not be allowed for the proper maturing of material or for the processes involved to be satisfactorily carried out. In other words, there is a danger of encouraging the factory to turn out shoddy work. It is assumed that the company's inspection department would maintain adequate safeguards against anything of this nature.

Finished Goods Stock

There remains the finished goods stock, and in this section again it will frequently be found that obsolete goods are kept in the bins in the hope that one day they may be sold. There is

also the danger of an excessive stock of current goods manufactured in response to a too optimistic outlook on the part of the sales manager. Here, too, money is locked up which should be circulating, and many a company has found itself in serious difficulty for cash when the goods on its shelves represented far more than the sum required to meet its immediate needs. Obsolete goods should be mercilessly sold off each year, but an excess stock of current goods needs more careful handling; any attempt to stimulate sales by reducing prices may create a situation which will cause trouble when repeat orders arise. The case of the residual stock of old models left over when a new model is placed on the market is not so difficult to handle, but so far as an excess stock of current goods is concerned, the only real answer is to find new markets where the goods will be absorbed.

Fixed Capital Resources

In the case of the fixed capital, hidden resources are not so many. Amongst the tangible assets it may be possible to sell or let any excess land over and above the company's requirements. With redundant buildings nothing can be done unless they can be let as warehouses or for some purpose which does not require too much trespass on the company's premises. Occasionally it is possible to sell a steel building complete if the structure is in good condition, and can be dismantled, but such opportunities for recovery of unwanted fixed asset money are not frequent. Usually something, at least, can be got from plant and machinery; every company has on its premises obsolete or worn-out machines, or perhaps plant installed for a process subsequently abandoned, and so on, and all these items should be turned into cash again, even at junk prices, as soon as possible. If they are really obsolete, they should have been written down in the company's plant register to scrap value, but even if they stand at a figure above that which they will fetch as scrap, it is far better to put such money as can be obtained for them back into active circulation than to leave it lying unused. In some firms quite large quantities of unwanted small tools are to be found which can be sold without difficulty to merchants, and any engineer will be aware of the amount of valuable tool steel lying around in the men's lockers of a badly managed machine shop.

Those who have had experience of a clean-up in a factory with

the object of turning obsolete material and scrap into money will agree that the sum thereby realized is sometimes astonishing, and before any manufacturing concern endeavours to obtain money from outside the business, this neglected source should be examined.

Other Assets

In the case of subsidiary companies there is probably little to be done other than stimulate them into more profitable working. That will make a bigger return on the fixed capital invested in them and so, to some degree, help matters. With the intangible assets, goodwill is, of course, useless for money-raising purposes, but it is sometimes possible in the case of patent rights or special processes to obtain some income by granting licences for exploitation. The fictitious assets mean nothing.

In this manner it is possible (and indeed, whether there is a shortage of cash or not, it is advisable) to go through each item of the circulating and fixed assets, and see whether any money is lying idle in, or taking too long to pass through, each section. Not infrequently the result will be the recovery of a sum which will meet the company's needs for the time being.

There is a further source of additional funds which might be considered as being obtainable from inside the business, and that is personal loans from directors. These are of frequent occurrence and show that the directors have confidence in the company's future, since in most cases such loans cannot be repaid until outside capital is obtained at a later date. The one point that might, perhaps, be made is that the interest payable to the directors on such loans should not be higher than that obtainable on a gilt-edged security, in order to avoid any suspicion that the directors personally are obtaining an advantage at the expense of the company's shareholders or creditors.

Apart from the money lying idle in the assets of the business, additional funds can be sought by making economies in the normal running of the place. The expenditure detail sheets should be gone through, and each item considered in turn to see whether by better organization or more attention savings cannot be effected. Money not spent is money added to the circulating capital, and frequently an overhaul of this nature provides excellent results.

(*b*) Additional Funds Obtained From Outside the Business

Such action as has been outlined above, though it may have a salutary effect in bringing existing money into more effective circulation, will not prevent the need for further money arising before long. In that case recourse must be had to some source outside the business, pledging the company's property as a security for the loan.

Bank Overdrafts

The first resource tapped by the managing director will almost certainly be his bank, and an application will be made for the provision of a sum for trading purposes, in the form of a permissible credit by way of overdraft up to a fixed limit. This the bank manager will be only too glad to arrange if, after inspecting the most recently audited balance-sheets and profit and loss accounts provided by the client, he is satisfied that the security offered is sound. Banks are not public benefactors; they exist, like any other commercial undertaking, to make a profit on the money invested in them by their shareholders and depositors, and it is therefore unreasonable to criticize a bank manager if he refuses to advance money to a client to the extent to which that client considers justifiable.

The principal disadvantage of obtaining additional funds from the bank is that such funds should not, except in exceptional circumstances, be sunk in fixed assets. In theory a bank loan is repayable on call, though in actual practice such a course would never be taken. But bank accommodation is specifically intended to be used as circulating capital in order to promote the trading of the borrowing company, and therefore whilst it can finance debtors, stock, and work-in-progress, there will be trouble if it is expended on plant and machinery without the bank being aware of the intention. The essence of a bank loan is that it should be kept liquid, since no bank wishes to make permanent investments. If, therefore, part of the overdraft is used to buy new equipment, that part can only be repaid to the bank through profits accruing by the use of that equipment. In certain circumstances this can quite satisfactorily be done, and the bank would therefore raise no objection to the investment if the sum expended

could be recovered in two or three years. Normally, however, it can be taken as a sound principle that money borrowed from the bank should only be used to finance stock, work-in-progress, and debtors.

The danger of a bank overdraft lies in its being allowed to grow to an unduly high figure. It may, it is true, be secured by assets which, at their book value, are ample for the purpose, but, should one or two years of bad trading set in, the bank may grow nervous lest the company should go from bad to worse and the loan money, therefore, be lost. This usually ends in a request for the reduction of the overdraft at the rate of so much per month or per annum—a demand which may add seriously to the difficulties which the company is experiencing. A bank overdraft is a good servant, but a bad master.

Personal Loans

The next source of funds from outside the business is usually the personal loan. This will probably be for a fixed sum at a fixed interest, either secured or unsecured, but probably without a repayment date. Loans made to small businesses have a tendency not to be repaid until the company is reconstructed, or a larger sum of long-term loan capital is brought in to clear off the old indebtedness and make a fresh start. Such loans have no restriction on their use, and no matter whether invested in the circulating or the fixed capital, once in, they will usually stop in, and the best the lender can hope for is an adequate interest on the money lent. Loans of this nature are frequently met with in small concerns, and so long as the lender is clear that it is a semi-permanent investment and is not under the impression that it is going to be repaid within a short period, they form an excellent source of additional funds.

It is at this stage that the growing business often meets the main obstacle of its development. It will have reached the maximum accommodation figure that the bank is prepared to advance, it will have squeezed all possible internal sources of wasted money and it will have exhausted all possibilities of personal loans. Yet excellent opportunities for sound expansion may still lie ahead. What can the managing director do about it?

Other Sources of Funds

In businesses in their earliest stages, where quite small sums would be helpful, there are certain recognized methods of raising money, such as loans on life policies or reversionary interests, or bills of sale, and, as a last resource, the mortgage of book debts. Most of these present disadvantages of a more or less serious nature. They are not suitable for the normal industrial concern, so will not be dealt with here.

The easiest and commonest way out, unfortunately, is for the company to increase the sum borrowed from its creditors, by not paying its commitments on the due date. This is over-trading and it is owing to the adoption of this course that so many small firms get into difficulties. Gradually a position builds up in which the company's circulating capital contains an excessive proportion of bank and trade creditor money, until the only way of salvation is a conversion of this short-term loan money into long-term money at fixed interest; in other words, the issue of something in the nature of debenture stock, from the proceeds of which the excessive bank and creditor money can be paid off, and a fresh start made without the dangerous implications of such a short-term financial structure.

As the loan from the bank grows with the company's expansion it will in the end probably be necessary to give the bank what is known as a floating debenture over the whole of the assets of the business. When the need for funds increases to the next stage, and the firm wishes to issue debenture stock for a definite amount, bearing a fixed interest and secured on the assets of the business, it will be necessary for the bank to relinquish its floating debenture, being paid out from the proceeds of the debenture issue. Many firms dislike the publicity caused by the issue of debentures, since these have to be registered and this notifies all and sundry that there is a charge on the assets of the business. Therefore suppliers (i.e. creditors) will realize that they are less secure in dealing with a company having a debenture issue than they would be with a company having only share issues. The debentures are usually redeemable, either at will or at definite dates, and in some cases a sinking fund has to be created from which the redemption can be made. This again places a burden on the firm concerned, since money must be found for redemption purposes.

Debentures are quoted on the Stock Exchange in precisely the same way as ordinary stocks and shares, and form a considerable proportion of the industrial capital in existence. Provided the firm is healthy they present no particular dangers, but what they do provide is a definite burden of interest which must be paid to the debenture holders whether the company makes any profit or not, with the further possibility that if the interest is not paid, the debenture holders have the right to appoint a receiver to manage the business or to realize the assets.

Mortgages are used in some classes of business in order to obtain further capital; these are of much the same nature as debentures, except that a mortgage creates a charge on specific assets. Where landed property is involved, this is a common method of obtaining business funds.

Another method of raising money that is frequently met with is the "Note." These are short-term securities for perhaps five years or ten years, issued by the larger firms and taken up by finance houses. They are for fixed sums at fixed interest, and in most cases a sinking fund has to be built up to redeem the notes when they fall due.

The Small Business

But though an issue of further shares or debentures may not present any great difficulty to a concern already well established and quoted on the Stock Exchange, it is not so easy for the small private business. Its balance-sheet may show clearly that there is an excess of short-term and a shortage of long-term loan money in the business, and that the obvious remedy is a further issue of shares of some denomination (which will raise the net worth), or an issue of debenture stock (which will raise the borrowed capital). But the shares or debenture stock must be taken up by investors, and the managing director is still left to find those investors, as he had to find the investors of the personal loans at the earlier stage in his development.

This difficulty was specifically discussed in the Macmillan report, and several finance corporations have been formed to fill the gap. Experience in industry shows that during the growth of a trading business, money is needed for two quite distinct purposes. The first is conversion capital (by which short-term borrowed money is converted to long-term) and the second is

expansion capital. In the latter case the existing financial structure of the company is normal, but it wishes to carry out a programme of business expansion for which the existing total capital employed is insufficient.

But since a small business may take many years to reach its optimum development, it does not so much need a lump sum of, say, £50,000 as a first advance of £5000, followed by subsequent advances over a period of perhaps ten years up to the full £50,000. In fact, what the managing director of a small growing business needs is a source of finance which will *guarantee his overdraft at his own bank up to a specified limit*, rather than advance him definite sums from time to time.

His relations with his local bank will probably be entirely friendly, and it is likely that he has already been granted the maximum accommodation that his bank manager can arrange for him. For further capital, to allow of the next stage in development, he must look elsewhere. Most men of energy and enterprise, building up a business, are reluctant to bring in new money which may entail handing over some part of the control of the business to the investor, and at the same time they do not require at the moment more money than will finance normal growth—a small extension to a building, a little more plant, more materials, work-in-progress, and finished goods, and more debtors. It is a curious but well-known fact that it is much easier to obtain a loan of £100,000 than one of £1000, yet perhaps £1000 is all the managing director needs at the moment—provided he can see another £1000 available in two or three months' time. He himself does not exactly know how far he can safely expand until he gradually feels his way—that is how he has built up his concern as far as it has got, and he is convinced he could go farther if he had the finance with which to do it. But whether he is likely to need £10,000 or £25,000 or £50,000 before he recognizes his limit of practical development, he does not know. If he has to borrow a lump sum he either "plays safe" and borrows too little—which means he has to go through the unpleasant process again in a year or two's time—or else, to avoid this, he borrows too much and has for some time to pay interest on a relatively large sum lying idle.

If he could draw funds as and when required up to a specified limit, from a special overdraft at his own bank, guaranteed by

some finance institution, very considerable advantages would emerge all round. He would only be paying interest on what he was actually using; his bank manager would remain in touch with his progress, and have an interest in encouraging and advising him; and as the specified limit came in sight, there would be time available and full information obtainable as to the possibility of that limit being increased. But as by that time the additional money drawn would be represented in some part by fixed asset additions, and in some part by current asset increases, the total assets of the business would have grown to an extent that would justify the local bank taking over some part, at least, of the guaranteed overdraft as making, with the old overdraft, a normal accommodation for a firm of its increased size.

Eventually, when the company was stabilized at its limit of practical development, the guaranteed overdraft might be converted into debentures, held by the guaranteeing finance institution on the lines now adopted by one such body which was created to assist the expansion of small businesses in the special areas, and has done such excellent work in that field.

Commercial Bills

The question of commercial bills as a means of providing additional funds should be mentioned in greater detail, although of recent years the commercial bill has largely fallen out of use for normal industrial trading. Forty or fifty years ago it was to be met with very commonly in industry and trade, but the willingness of the banks to provide temporary trading accommodation by way of overdraft has led to the use of bills becoming less common.

The theory of accepting bills to mature one, two or more months ahead is based upon the expectation that it will prevent the sum involved being taken out of the circulating capital until the additional money created by the sale of the goods has come in from the debtor. The firm accepts, say, a three months' bill in payment for its material supplies, and it does not actually have to find the money to meet that bill until three months have elapsed. If, therefore, during that period the firm can complete any manufacturing process, sell the goods, and also obtain payment from the customers, it is possible to pay for the cost of material from the proceeds of the sale.

This was the original purpose of such documents, which existed long before the factory era, and in the sense that they postpone actual payment for raw material or goods received, they provide additional funds for running the business. From the other angle, if the firm draws bills on its customers to the value of the goods supplied, provided the customer is sound such bills can be discounted at the firm's bank and the money put back into circulation.

In normal processing industries, however, the drawing and accepting of bills adds a complication to the movement of funds inside the business which is apt to be dangerous where the sales consist of a considerable number of individual transactions within a wide range of value. Suppose a chemical firm sees the opportunity to purchase 100 tons of imported raw material at £20 per ton, and believes that products made from it can be disposed of within the next two or three months at a good profit. The firm purchases the material, accepting a bill for £2000 at three months, takes delivery, and proceeds to manufacture and sell the products in commercial quantities.

The invoices for these quantities merge into the general turnover of the company, and the cash returning is not in any way different from the money coming in every day from other transactions. Since calls on cash are always irregular in any business, and it is quite impossible to regulate to a nicety the flow either inwards or outwards, unless the cashier keeps carefully before him the fact that at a certain date there will have to be a sum of £2000 at the bank to meet the maturing bill, in addition to such other cash as may be wanted for general purposes, there is a grave danger that when the day arrives the money may not be there.

For a single trading transaction (and the examples given in textbooks of bill procedure are almost always for single transactions), undoubtedly the commercial bill is a valuable instrument for providing additional credit and for keeping trading funds in a liquid condition. But in the case of a general processed turnover it is more usual to seek the accommodation offered by a bank. It has, in fact, become the practice with many cashiers to look askance at any customer offering trade bills instead of cash payment at the end of the normal commercial credit period, as being evidence that the customer's business is under-capitalized, and recovery of the debt may cause trouble.

CHAPTER XVI

THE BANKER'S VIEWPOINT

THE average industrialist does not aspire to an intimate understanding of the science of banking nor to a knowledge of the intricacies of City finance. But it would be as well if he had a nodding acquaintance with the principles upon which bankers base their business in order that he can maintain his reputation of being sound on finance by respecting those principles.

When he approaches his bank in order to obtain an advance, he will find that the bank manager wishes to know five things—

(*a*) How much does he require?
(*b*) For what purpose is it required?
(*c*) How long is it wanted for?
(*d*) How, and when, will it be repaid?
(*e*) What security is it proposed to offer?

These five questions appear elementary, and the first reaction of the reader will probably be one of surprise that it should be necessary to enumerate such obvious preliminaries to the lending of money. Yet most bank managers would agree that few applicants can, in the first stages, answer these questions at once. It will therefore assist the industrialist's case if he goes to the interview with the information clearly set out, thereby giving evidence that he has some knowledge of the banker's viewpoint in the matter of advances.

Banking practice requires that certain principles shall be maintained in connection with loans. To be satisfactory from a banking standpoint, a loan must be—

(*a*) Safe.
(*b*) Liquid, and repayable by the borrower without undue difficulty.
(*c*) Profitable.

If these three conditions are considered in turn, it may help the would-be borrower to understand the banker's attitude when application is made for credit in one form or another.

"Safe"

The first condition is safety. A bank is not a private individual who can speculate if he so desires. A bank is a commercial undertaking, and possesses shareholders with money invested in it in the same fashion as in any other commercial business. Instead of dealing with confectionery or gramophones or machine tools, the bank deals with money. But there is one major difference in the financial structure of the two types of business—whereas the manufacturing concern trades with funds which are either owned or borrowed (except for creditor money) on a long-term basis, a bank trades principally with funds provided by its depositors, which is short-term creditor money. If the reader checks up on the published balance-sheets of the banks, he will find that the issued capital is about 2 per cent of the total capital employed. On account of this enormous preponderance a bank has a double responsibility for the safety of its asset investments; a responsibility to its shareholders, and also a responsibility to its depositors who provide such an overwhelming proportion of the total capital employed.

Like every other undertaking, the bank from time to time has to meet bad debts in the shape of a failure to repay money lent or credit given. Just as every sales manager is most anxious to avoid bad debts and will examine the credit status of any intending customer offering large orders, so the bank manager desires safety in his transactions and, it will be noticed, places this condition first.

It should be remembered that commercial safety is only one of three conditions desired, and mere safety by itself is not enough. It is, in fact, possible for the security offered for a loan to be too safe, in the sense that the money it may undoubtedly represent is so securely locked up that it would be most difficult, if not impossible, to obtain it in the form of cash should the need arise. Such a security might be safe, but the loan made on it would not be liquid or easily repayable.

"Liquid"

Secondly, the advances must be liquid—i.e. they must be invested in such a manner that they can be recalled without undue difficulty and within a reasonable time. It has been

emphasized earlier that money borrowed from a bank should normally only be used for trading purposes, and should be invested, therefore, in raw materials, stock, work-in-progress, and debtors. Fixed assets should not be purchased through bank money (except in unusual circumstances approved by the bank), since if that is done the second condition no longer applies. The loan cannot be called in within a reasonable time in the form of cash.

In view of what has been said earlier regarding the grave danger of an excess of creditor money in the circulating capital, it is easy to understand the emphasis laid by the banker upon the importance of the loan being used for liquid or current assets only, or for fixed assets which recover their value in two or three years at most. The bank is trading almost entirely on creditor money and at no time could it possibly pay off those creditors (its depositors) in cash if called upon by all of them to do so. In the past this situation—the "run on the bank"—has often occurred, and usually ended in the collapse of the bank, with the depositors losing most, if not all, of their money. It is therefore no more than elementary prudence for the banks to insist that loaned money should be repayable without much difficulty on call.

"Profitable"

Thirdly, the advances must be profitable. This is a matter for the bank, and not for the industrialist to decide. The latter will want the money, naturally, at the lowest possible interest, as the profits he will receive from trading with the bank's money will be reduced by the amount charged by the bank. If his business is not one in which good profits can be made, he may find at the finish that he is little better off for his increased activity.

The point is worth careful consideration from all those who feel that an expansion of trade could be achieved if they could obtain more working capital, and for this purpose endeavour to obtain accommodation from a bank. More often than not additional trading brings with it additional expense. It may be necessary to increase the sales staff, to open new branches and attack markets hitherto untouched. More buildings, more machinery, and more factory expenses may bring with them additional establishment charges, and it is by no means unusual to find a company which was, perhaps, making 10 per cent profit

on a turnover of £100,000 per annum, drop to a profit of 7½ per cent on a turnover of double that amount. The actual sum of profit obtained will, of course, be larger in the latter case, but the additional expenses forced upon the company have eaten into those profits until the final result, as a percentage on turnover, is not so good as it was before. Many of the bigger concerns, racing ahead and expanding their turnover by every means in their power, bringing in loan capital sometimes at high rates of interest in order to do so, have found at the finish that they were dangerously near the point of actually making a loss on the vastly increased turnover obtained. The fact coined the phrase "profitless prosperity," and it is by no means a fallacy.

The banker, indeed, is not concerned with all this. He will ask for a reasonable rate of interest, having regard to all the circumstances of the case. Usually the interest charged is the subject of discussion from time to time, and concessions are frequently made by banks to good customers where security is beyond question and the overdraft turnover is an active one. This activity is a point on which all bank managers lay stress. An overdraft is not intended to be permanent capital invested in the business, and an overdraft which remains permanently on its top limit is obviously not a temporary accommodation to meet the fluctuations of trade conditions. It is a permanent contribution to the company's total capital employed. The banker's reaction to such a state of affairs is that the company should obtain its permanent capital elsewhere, since the second condition, of liquidity, is obviously not being fulfilled. Such an overdraft cannot be recalled without undue difficulty and within a reasonable time.

Overdrafts should fluctuate in accordance with the activity of the particular trade in which the company is employed. Being expressly intended for financing stock, work-in-progress, and debtors, they should rise as stock is being built up for the peak sales period, and fall back again as the sales are made and the money returns from the debtors. Some classes of undertaking have more than one peak sales period in the year; few have no peak at all. Most, it will be found, are seasonal to a greater or a less extent—though possibly the management may not be aware of this fact until attention is drawn to it.

The Banker's Survey

To return to our industrialist applying to a bank for temporary trading accommodation, he will be asked to submit his audited balance-sheets and profit and loss accounts for several years past, in order that the bank manager can form an accurate idea as to the structure and stability of the business. Advances made by banks are in the first instance frequently unsecured, in the sense that no formal debenture or other document is signed, giving the bank a first charge on the company's property; the advance is made as a straightforward loan based upon the bank's judgment of the management, prospects, and record of the company, as long as existing liabilities show an ample reserve security. The bank manager will analyse the client's balance-sheets in order to ascertain the residual value available after all the liabilities have been paid off. This will be recognized as the net worth of the company, but the operation as performed by the banker usually produces a very different result from the net worth shown on the balance-sheet.

Each item is taken in turn and ruthlessly scrutinized. Fictitious and intangible assets are written off as of no value; fixed assets in the shape of investments in subsidiary companies are treated with considerable caution, and a value may be put on them which is very different from that at which they stand in the balance-sheet. The tangible assets go through much the same procedure, being considered from the point of view of their break-up value in the case of a forced sale.

Current assets come next under consideration. Stock and work-in-progress will certainly not be accepted at its book value; the banker does not know how much of the stock is obsolete and how much of the work-in-progress will ever reach the selling stage if the company should close down. Debtors are sometimes analysed in order to ascertain the extent to which they can be relied upon for payment. Investments are taken at market value less a contingency, and the cash, at the end, is likely to be the only figure which is untouched.

The liabilities are subjected to an equally careful scrutiny, but more in order to make sure of the order of precedence of those having claims on the break-up value of the company, should that ever come to pass. Subtracting, then, these liabilities from the

revised total of the assets, the banker arrives at a figure which may perhaps, for the sake of clarity, be called the banker's net worth of the business.

Taking the Balance-sheet Apart

The writer has had occasion from time to time to visit bank managers with his clients in connection with problems of reorganization or development, and to hear an experienced bank manager take the balance-sheet to pieces is enough to shake the confidence of the most sanguine managing director. Optimism is said to be a dangerous quality for a bank manager to possess, and the maintenance of the three banking principles may call for a prudence in outlook in which optimism has little place. This may be a salutary cold douche for the managing director looking for more money, but it certainly hinders reconstruction and development. No doubt the bank manager's answer to the charge would be that reconstruction and development of a business are no concern of his. He is handling his depositors' and shareholders' money and it is his duty to use it in a safe and profitable manner. If the managing director, therefore, cannot offer a security which is beyond question safe, the money required for reconstruction and development must be looked for elsewhere.

There are no hard and fast rules as to the proportion of the "banker's net worth" that a bank will advance. Every case is considered on its merits, and much will depend upon the nature of the business and the personal record of the client. If the company has no debentures or prior charges on its property, the bank will certainly be prepared to advance a larger sum if it takes a floating debenture over the whole of the assets of the business. This gives the bank the prior claim over the ordinary trade creditors, and if debentures have already been issued, such debenture holders will have to agree to take second place behind the bank. In such circumstances the bank loan is no longer unsecured.

It is not always absolutely necessary to pledge the company's assets. Collateral security can be given, such as quoted securities or life policies. A bank is also prepared to take personal guarantees from the directors, provided it is satisfied that they are men of substance; sometimes such guarantees have to be backed by securities lodged at the bank. The bank would then have a lien on such securities until the overdraft was paid off or

the guarantors found other means of relieving themselves of their responsibility.

Personal Guarantees

A word may perhaps be said here with regard to personal guarantees. Few individuals undertake to guarantee an account in the belief that their guarantee will be called; human nature always appears to assume that the guarantee is purely a matter of formality, and the guarantor is therefore unlikely to be called upon to pay up. Unfortunately in quite a proportion of cases the bank has to call upon the guarantors for their money, and this usually causes a great deal of bad feeling directed—somewhat unfairly—quite as much against the bank as against the original borrower who obtained the guarantee. Those who undertake to act as guarantors would be well advised to place to a separate account in their own bank such securities as may ensure the guarantee given—and then regard the money as lost. The pleasure of finding that it is safe when the guarantee is finally cancelled will be much better than the exasperation of having to find a similar sum unexpectedly if the guarantee is called.

In some cases a number of directors will put up what is known as a joint and several guarantee for a bank advance, and this also is liable to cause trouble. If four directors in a small business give a joint and several guarantee for £1000, each is apt to consider that he is guaranteeing only £250. Should, unluckily, the guarantee be called and three of the directors be found to have no funds upon which the bank can draw, the fourth will be liable for the whole £1000, his only recourse—obviously an unsatisfactory one—being to take action against the other three to recover £250 from each of them.

Whilst the banks are quite prepared to look upon personal guarantees with favour, provided the guarantors are financially sound, from the other side of the counter it is a form of security which it is wisest to avoid.

The securities that can be offered to cover the advance of a loan are widely varied, and the cynic who spoke of banking as being pawnbroking on a large scale was not very wide of the mark. After the field of straightforward securities come those which undoubtedly represent security to a certain degree but have inherent difficulties or dangers if they have to be turned into

money. Amongst these are second mortgages, charges on uncalled capital, reversionary interests, assignments of retention moneys, unquoted shares, buildings in course of erection, and shares involving a liability. None of these is readily acceptable to a banker, although the circumstances of the case have a good deal of bearing upon the final decision in all cases.*

It must be remembered that the banker is essentially not a trader in the commercial sense, although he operates with his shareholders' and depositors' money in order to make a profit on it. Above all things the banker stands for the conservation of assets and the provision of temporary accommodation for purely trading purposes. Whilst the provincial bank manager will certainly have to refer any question of a loan or overdraft of any magnitude to his head-office in London, he will be unusual if he does not treat the transaction with sympathy and consideration, and do all that lies in his power to help his prospective client. After all, it is to his advantage to have as many sound liquid accounts as possible on his books, and local bank managers invariably know a great deal about their clients and their businesses, and do their best to help them.

If the would-be client is prepared to bear strictly in mind the three important principles that the banker, from the very nature of his business, has to maintain—that a loan must be safe, liquid and profitable—he will find no difficulty in obtaining all the help that his circumstances justify, provided that he, on his side, can meet the requirements of the bank.

The attitude of the banking profession at the present time towards the needs of industry is very different from what it was thirty years ago. Proposals are being considered and risks taken which in years gone by would have been considered outside the scope of ordinary joint-stock banking. This more modern point of view, whilst it maintains all the standards which have made British banking the model for the world, is bound to contribute in no small degree to the strengthening of the foundations of industry as a whole.

* For further information on this subject the reader is referred to *The Banker as a Lender*, by F. E. Steele (Pitman).

SECTION V

THE CONTROL OF THE INTERNAL FINANCE

CHAPTER XVII

FINANCIAL CONTROL

AFTER all this argument, there remains the task of setting up a range of checks and controls, by means of which the principles advocated can be put to practical use, and the financial position watched each month. In this, the end to keep in view is that nothing in the business should be able to move either in a favourable or an unfavourable direction to an extent that is significant, without the fact being brought to the attention of the managing director.

The number of combinations, ratios, and comparisons that can be made from the figures provided by industrial accounts is almost infinite. Since the going concern is a most complex machine, all parts of which are unceasingly moving, it can be said with truth that the movement of any part must have its effect upon the rest, directly or indirectly. It is easy to be drawn farther and farther into the field of management ratios, until the mass of data accumulated is more bewildering than helpful. If the sales turnover be divided by the tons of coal burnt in the factory boiler-plant, the result will show the £ turnover per ton of coal used, which will probably rise in the summer and fall in the winter—and make a nice chart for someone to study. Or the cost of brooms, wipers, and other shop cleaning material might be divided by the number of shop labourers, which would give the value used per labourer. Even more strange combinations can be found in some of the textbooks on analytical management. From the standpoint of "exception" control it is extremely important to restrict the items watched to those which have a major significance. The managing director who has the time and the interest to go more deeply into the subject can himself check up on the wider implication of the figures. He will

certainly reap his reward in a clearer vision of the position of his company.

Control Charts

For control purposes simple charts of one form or another are the most effective, since the eye can take in quickly the rise or fall of a line or a bar, where the fluctuations in a column of figures are apt to pass unnoticed. For the busy industrialist it is invariably best to illustrate the control figures by means of charts, regularly kept up-to-date and submitted for inspection as often as desired.

Under certain conditions it may be advisable for special items to be recorded daily or weekly. Many concerns keep daily records of the bank position, or make up brief weekly statements of cash received and paid out. These are convenient, and indeed necessary, where the cash position needs careful handling. But, like many other returns of a special nature, they are additions to and not part of the main framework of financial control, which should be based on regular monthly records.

Some aspects of financial control are of so slow-moving a nature that quarterly checks are adequate. As far as possible the items watched monthly should be kept to a minimum, since it must be borne in mind that we are dealing here with only the financial aspect of control. The managing director will have to watch the business, trading, and technical aspects as well, and the complete structure must, above all, not be too complicated to be practical.

This difficulty is fortunately eased by the normal incidence of the facts and figures in industrial working. The business results (orders received, invoiced and outstanding) and the technical results are available for study immediately after the close of the month under review; the trading and financial results cannot be dealt with until the accounts branch has had time to make up the books. This entails a certain period which will depend upon the efficiency, the size and the degree of mechanization of the accounts branch—but seldom seems to be much less than three weeks after the close of the month under review.

The business aspect should be studied and dealt with as promptly as possible after the close of the month under review, before the memories of *why* things happened have begun to fade under the pressure of the continuing day-to-day effort. If orders

MONTHLY CHARTS FOR FINANCIAL CONTROL

Relating to—	Ref.	Item	From
(Sales and Profit). See note below.	T. 1	Sales Turnover (Current and M.A.T.)	P. & L.
	T. 4	Final Profit after Adjustments (Current and M.A.T.)	P. & L.
CIRCULATING CAPITAL	F. 1	Cash Forecast (1, 2, and 3 months ahead)	C.F.
	F. 2	Circulating Capital Flow-Speed (Current)	B.S.
	F. 3	Circulating Capital Make-up	B.S.
	F. 4	Circulating Capital Total and R.P.A.	B.S.
	F. 5	Value of Sales Day	P. & L.
	F. 6	Working Capital Make-up in £	B.S.
	F. 7	Working Capital Percentage Cover	B.S.
	F. 8	Liquid and Current Ratios	B.S.
	F. 9	Percentage of Creditor Money in Circulating Capital	B.S.
FIXED CAPITAL	F. 10	Turnover of Fixed Capital (M.A.T. Sales ÷ Fixed Capital)	P. & L. & B.S.
	F. 10	Profit on Fixed Capital (M.A.T. Operating Profit ÷ Fixed Capital)	P. & L. & B.S.
TOTAL CAPITAL EMPLOYED	F. 11	Total Capital Employed, with Increase or Decrease	B.S.
	F. 12	Operating Profit	P. & L.
	F. 13	Turnover of Total Capital Employed (M.A.T. Sales ÷ T.C.E.)	B.S. & P. & L.
	F. 13	Profit on Total Capital Employed (M.A.T. Operating Profit ÷ T.C.E.)	B.S. & P. & L.
BORROWED CAPITAL	F. 14	Cost of Borrowed Capital (M.A.T. Expense of Borrowed Capital ÷ M.A.A. Total Sum Borrowed)	P. & L. & B.S.
OWNED CAPITAL	F. 15	Profit on Net Worth (M.A.T. Final Profit ÷ Net Worth 12 Months Previously)	P. & L. & B.S.

P. & L. = Profit and Loss Account
C.F. = Cash Forecast
B.S. = Balance-sheet
M.A.T. = Moving Annual Total
M.A.A. = Moving Annual Average

NOTE:

Charts T. 1 and T. 4 belong to the Trading Position set, but are included in the financial survey, as many of the financial charts are based on sales turnover or final profit.

FIG. 48

are not coming in as they should do, the whole structure of the business will soon be in jeopardy. But the trading and financial results guide the policy to be pursued, and a delay of three weeks —it should never be more, and should be reduced to a fortnight

QUARTERLY CHARTS FOR FINANCIAL CONTROL

Relating to—	Ref.	Item	From
CIRCULATING CAPITAL		NIL	
FIXED CAPITAL	F. 16	Turnover of Fixed Property Investment (M.A.T. Sales ÷ F.P.I.)	P. & L. & B.S.
	F. 17	Cost of Fixed Property (M.A.T. of F.P. Expenses ÷ F.P.I.)	P. & L. & B.S.
	F. 17	Fixed Property Load on Sales (M.A.T. of F.P. Expenses ÷ M.A.T. of Sales)	P. & L. & B.S.
TOTAL CAPITAL EMPLOYED	F. 18	Make-up, showing assets, liabilities and net worth, in £	B.S.
	F. 19	Make-up, showing assets, liabilities and net worth, in £, as percentages	B.S.
BORROWED CAPITAL	F. 20	Make-up, showing current, medium-term and long-term liabilities	B.S.
	F. 21	Make-up, showing current, medium-term and long-term liabilities, as percentages	B.S.
OWNED CAPITAL	F. 22	Make-up, showing issued capital, reserves and P. & L. balance	B.S.
	F. 23	Make-up, showing issued capital, reserves and P. & L. balance, as percentages	B.S.

P. & L. = Profit and Loss Account
B.S. = Balance-sheet

FIG. 49

if it can be done—will not affect that policy to any significant degree. So that the managing director, having cleared off his business and technical problems in the early part of the month, can concentrate on the trading and financial problems in the third week. On the whole, the former are liable to need much more of his personal time than the latter. In fact, where a concern is working smoothly under good management, the survey of the trading and financial positions may not amount to more than a ten-minute check-over that all indications are satisfactory.

The managing director, therefore, must decide what charts or records will show him what is going on, in the simplest manner. A suggested range, which should normally meet the case, is set out here in Figs. 48 and 49. It will be seen that it comprises fifteen monthly charts and eight quarterly ones, the latter covering items sometimes surveyed annually at the present time. The

author does not wish to imply that this set is necessarily complete or unalterable. Individual preferences should always be considered, and also the particular circumstances of the company concerned. What is vitally important in one may be negligible in another—and no useful object is served by making up a lot of charts to record matters that are of no significance. But in every company the laws which govern the movement of the money in a business are bound to have their effect. The managing director, if he is wise, will conform to the principle that his financial control indicators—his set of charts—are sufficiently complete to ensure that no movement, whether favourable or unfavourable, can occur without his attention being drawn to it.

Chart Presentation

When the charts are made up each month, it is strongly recommended that they should be pinned to the wall, suitably arranged, so that the whole set can be studied without turning over the pages of a binder. The author has found wall-display far more effective than the more usual procedure of keeping management charts in loose-leaf book form. Since the charts are merely a pictorial representation of what is going on—the dials on the control panel —it is not only convenient but necessary that the controller should be able to watch their movements in relation to each other. Where pages have to be turned over, the sequence of thought is broken and cause and effect are frequently overlooked. A panel of some suitable resilient material* should be fixed to the wall of the managing director's office—or in any special room allocated for control work—and the charts should be made up each month, displayed, studied and then taken down and put away until the next month's results come out, when the process is repeated.

This is the most practical aspect of financial (or any other) control. Without it, much of the controlling power is lost and the wall-display of the control charts should be considered as an essential part of the work. Hitherto this has been given little consideration—but it is just as illogical to take a lot of trouble to obtain and record the control figures and then present them badly to the controller, as it is for the accountant to spend endless hours

* Cork lino or Celotex can be recommended. The latter requires no covering, looks well with a coat of matt-finish paint, and will take without undue pressure even ordinary pins.

in making up his primary documents in their technical framework and then cancel out their value to the manager by not rearranging the figures so that they can be used to control the business.

The author remembers an anecdote he heard many years ago, of an industrial magnate who kept a small office furnished only with one revolving arm-chair. His charts and records were pinned up round the walls, and he sat in his arm-chair and could swing round as might be required whilst he studied all the phases of his business. In those days this was considered to be a humorous story, but the idea is fundamentally sound, and actual experience of such matters has shown that the display of the complete set of control charts and statements, on a wall, offers by far the best control medium. After all, it is only what is invariably done in mechanical control, whether it be the dash-board of a car, the instrument panel of an aeroplane, or the main control-board of a power-station. The control of industrial undertakings must, above everything else, be practical—and there is no reason to-day why the industrial control panel should not be just as complete, reliable and informative, as that of any modern power-station.

Charting Technique

With three exceptions, which will be mentioned later, the charts used as examples later on in this chapter are all simple lines or bars for which no explanation is required. Care should be taken in the first instance in deciding on the scale, and once a scale has been chosen for any factor, it should be kept to all charts where that factor appears. For instance, the same scale for turnover "times" should be used in F. 4, F. 10, and F. 13 and the same scale for profit percentage in F. 10, F. 13, and F. 15. It is best to make double-line curves, left open for moving annual totals, and coloured (or blacked) in for current results.* Since the figures they illustrate are invariably entered on the chart, the extra width of the curves is no disadvantage—in fact, it makes the movement easier to see. These charts can be made up on 6 in. × 4 in. chart-cards, which take up little room and yet give an adequate impression of the movement. If these are considered too small, standard foolscap sheets may be used and kept in a suitable file when not required for study. But the larger the charts, the further the eyes have to travel in studying the movement, and it will be

* See Fig. 46, p. 175.

found after a little practice that the use of small charts increases the power of concentration to a considerable extent. For demonstration at a meeting, where it is desired to show detail movements at a distance of 15 or 20 ft., larger special charts should of course be adopted.

All charts should have normals or targets marked in some way, so that the divergence above or below normal can be immediately seen. This is a most important factor in control, and the value of the charts is largely lost if normals are not shown. Where development is going on, the planned normal will show as a sloping line leading up to the target set.

In compound bar charts or block charts this may have to be omitted, to avoid confusion. One way of watching actual against forecasted results when bar or block charts are being used is for the forecast to be drawn on a sheet of tracing paper. By laying this on the chart after the actual result has been entered up, the difference can be observed.

It is best to use pencil or coloured crayons in making up the charts. Inks and colour washes are inconvenient for making alterations, and so should be avoided.

The three exceptions mentioned above are as follows—

F1 Cash Forecast Chart

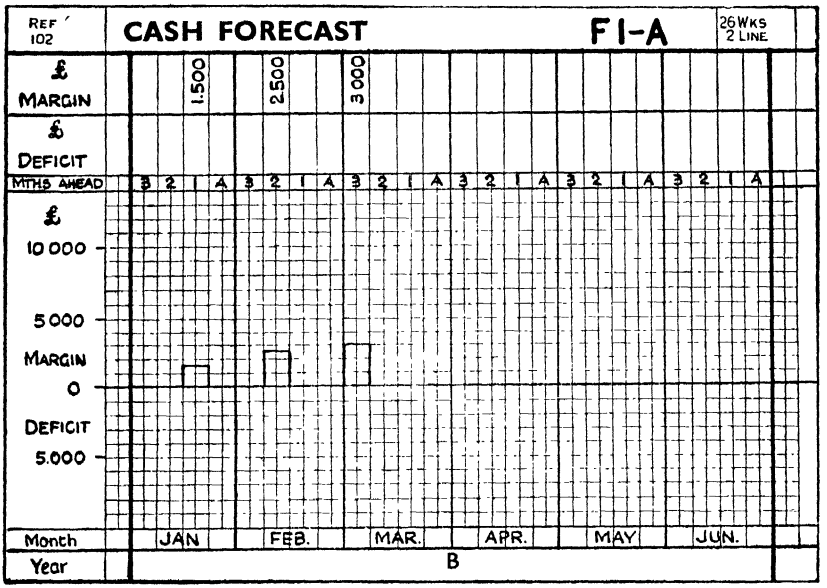
As the method of constructing this is a little difficult to grasp at first sight, the following should make clear how it is built up—

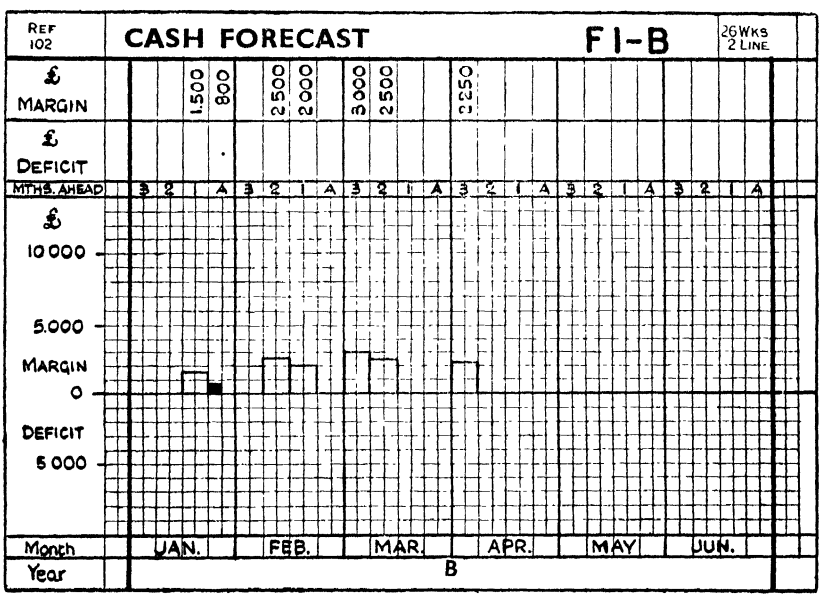
1. Let us suppose that the managing director decides, early in January, year B, that in future a cash forecast is to be made for three months ahead, and shown by means of this chart. The cashier makes his survey of the situation, forecasting £1500 surplus in January, £2500 in February and £3000 in March.

   This chart is arranged to allow for three forecasts for each month, and the actual figure. Since the forecasts must move towards the actual as time passes, the first entry on the chart, made in December, will be as shown in F1–A on p. 214.

   (This being the start, two forecasts for January and one for February are missing.)

2. At the end of January the cashier finds that his surplus in cash was only £800. He then makes his forecast for February, March and April, entering the actual results for January in

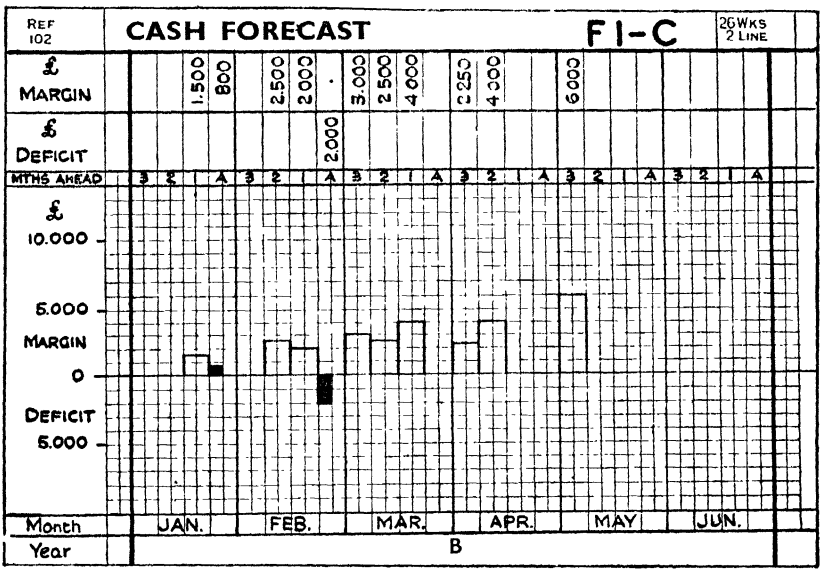

REF 102
CASH FORECAST
F1-A
26 WKS 2 LINE
£ MARGIN
1.500
2.500
3.000
£ DEFICIT
MTHS AHEAD
3 2 1 A
£
10 000
5 000
MARGIN
0
DEFICIT
5.000
Month
JAN
FEB.
MAR.
APR.
MAY
JUN.
Year
B


REF 102
CASH FORECAST
F1-B
26 WKS 2 LINE
£ MARGIN
1.500
800
2500
2000
3000
2500
2250
£ DEFICIT
MTHS. AHEAD
3 2 1 A
£
10 000
5.000
MARGIN
0
DEFICIT
5 000
Month
JAN.
FEB.
MAR.
APR.
MAY
JUN.
Year
B

black, in the fourth column of the January section, above A. He decides to lower his estimate of the surplus on February and March slightly and the chart will now look like F1–B on p. 214.

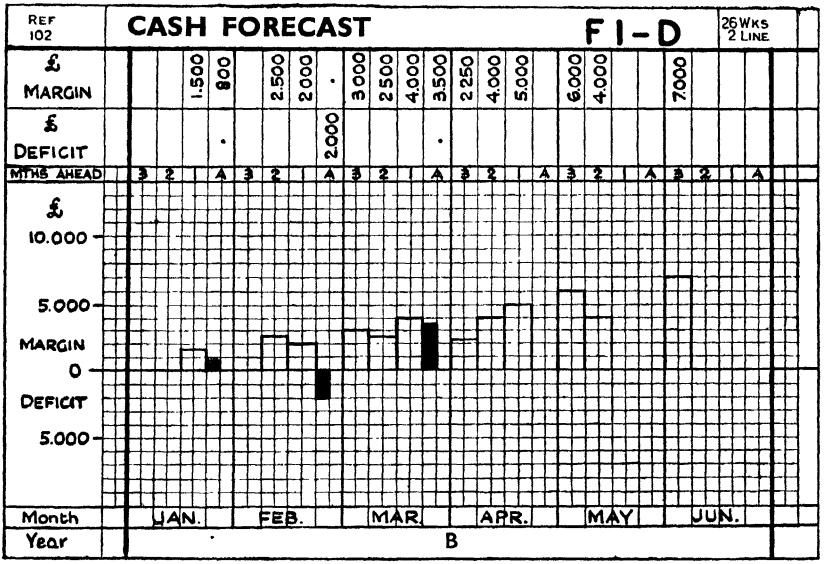
(The "actual" bar is made only half the width of the forecast bars to differentiate it more clearly, and also to form a break between the months.)

3. At the end of February a deficit of £2000 arises, owing to an expected cheque not having come in. The cashier follows this up, and it arrives as he is making his March forecast, for March, April and May. After adjusting these figures again, the chart will now look like F1–C below—



4. At the beginning of April, the cashier again makes his forecast, this time for April, May, and June, his surplus for March having been £3500. The chart will then look like F1–D on p. 216.

5. The normal working condition of the cash forecast chart has now been reached, and month by month it will move forward in the same way, always with three entries in the current month, two in the first month ahead, and one in the second month ahead. The height of the bars shows the consistency of



the cashier's forecasting, and the black "actual" bar checks his final estimate against the actual figure of cash margin or deficit which emerges at the end of the month.

F2 Circulating Capital Flow-speed Chart

This can be made up in two ways—either as a circular time-chart, or as an ordinary multiple bar chart.

The circular time-chart can be coloured to show the sales-day make-up in the various sections, as in Fig. 50. The closing month for the previous year is entered in the outer ring, and the successive months of the new year move inwards towards the centre. In this chart it is the position of the fore-edge of the bar which matters; the farther away from zero it moves, the longer the circulation is taking.

These circular time-charts give the impression of circulation, which is an advantage. On the other hand, the gradually diminishing area of the coloured sections is apt to mislead unaccustomed readers into thinking that the amounts invested are growing less.

For this reason some users prefer the plain multiple bar chart, as shown in Fig. 51. Here the rise or fall of investment in sales days can be more clearly seen, but the idea of circulation is absent.

MOVEMENT OF CIRCULATING CAPITAL YEAR A/B

	STAGE	TINT	DAYS											
			M	A	M	J	J	A	S	O	N	D	J	F	M
1	CASH		84	93	110	144	165	123	109	100					
2	DEBTORS		56 9	59 1	61 9	64 5	60 3	55 2	49 3	46 0					
3	FINISHED GOODS		8 7	7 8	7-8	7 8	7 E	7-9	8 0	8 4					
4	WORK IN PROGRESS		29 1	29 4	29 9	29 3	28 2	26 1	27 1	24 4					
5	MATERIALS		62 9	61-7	59 7	55 9	52 8	50 3	51-0	51 0					
6	OTHER CURRENT ASSETS		·	·	·	·	·	·	·	·					
	TOTAL		166 0	167-3	170 3	171 9	165 4	151 8	141 5	139 8					
	REVS. PER ANNUM		2 19	2 18	2 14	2-12	2 21	2 40	2 58	2 61					

FOR TIME ONLY: NOT TO SCALE FOR AMOUNTS INVESTED

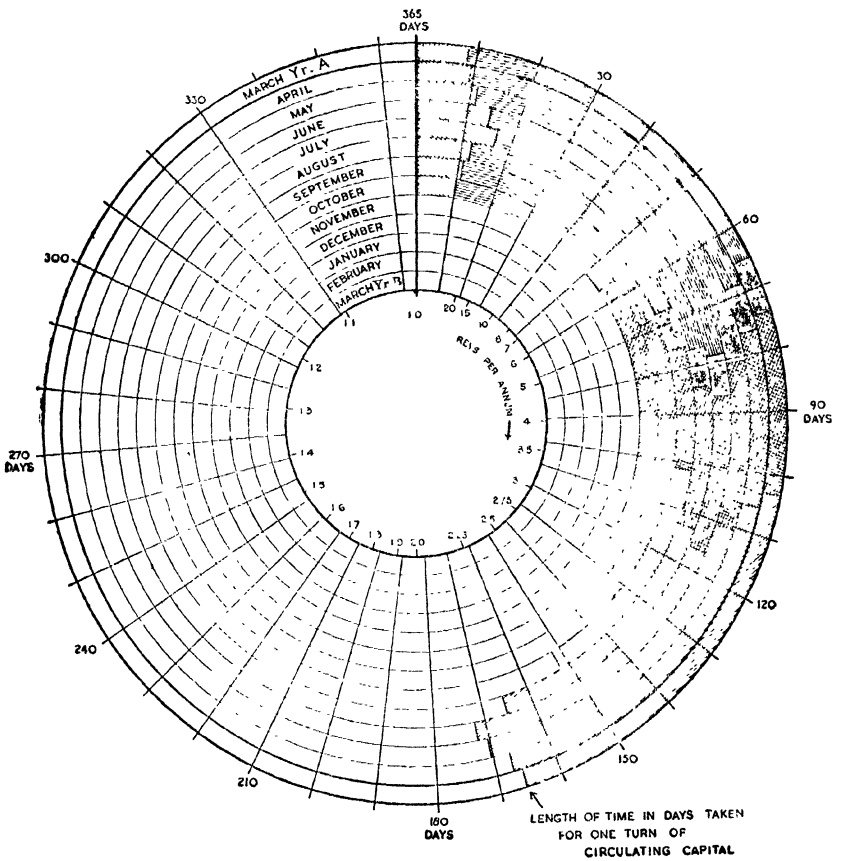
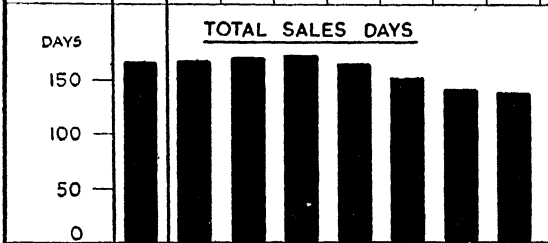
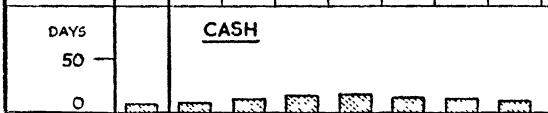


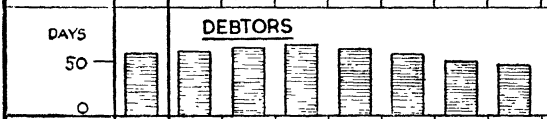
FIG. 50

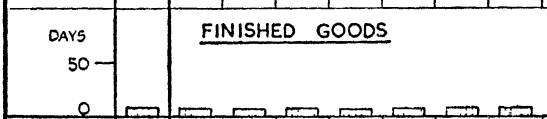
MOVEMENT OF CIRCULATING CAPITAL

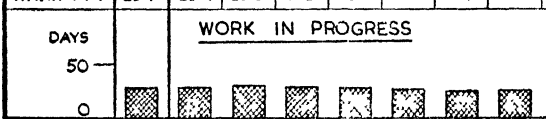
YEAR	A										B		
MONTH	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
TOTAL	166·0	167·3	170·3	171·9	165·4	151·8	141·5	139·8					
R. P. A.	2·19	2·18	2·14	2·12	2·21	2·40	2·58	2·61					
CASH	8·4	9·3	11·0	14·4	16·5	12·3	10·9	10·0					
DEBTORS	56·9	59·1	61·9	64·5	60·3	55·2	49·3	46·0					
FIN. GDS.	8·7	7·8	7·8	7·8	7·6	7·9	8·0	8·4					
WK. IN PR.	29·1	29·4	29·9	29·3	28·2	26·1	22·3	24·4					
MATERIALS	62·9	61·7	59·7	55·9	52·8	50·3	51·0	51·0					
O. C. A.	·	·	·	·	·	·	·	·					
MONTH	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
YEAR	A										B		

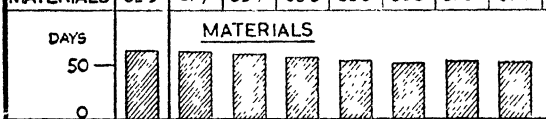












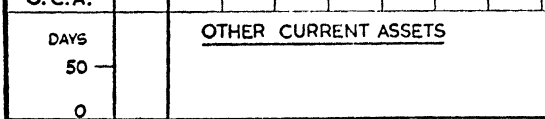


FIG. 51

Where 6 in. × 4 in. chart-cards are used for the control set, each concentric monthly ring is 0·1 in. wide. This is adequate for careful colouring by crayon, or for blocking-in in black.

F7 Working Capital Percentage Cover Chart

Here the six component sections of the current assets are set out one above the other, each section representing 100 per cent of the item. The vertical bars rise through the sections covering the working capital, breaking off in the section where the cover ends. Sometimes the top section is covered or hatched to draw attention to its variation month by month.*

The monthly financial survey, whilst superficially simple enough, will be found to need careful thought if the full implication of the various movements is to be brought out. This rises, that falls—some rises are favourable, others unfavourable, and the same applies to the falls. In studying the changes, therefore, it is difficult to obtain a balanced view of the situation as a whole unless each aspect is assessed in turn, and then, at the finish, the general result recorded. For this reason, in working the control it has been found a great help to prepare a survey sheet, in which space is allowed for a very brief comment on each chart.

Two aspects must be considered—the current position for the month and the direction of movement. The company may still be in a bad position for cash, for instance, but it may be improving steadily each month; in such a case the current position would be unfavourable, but the movement favourable. These conditions can be noted in various ways—very good, good, satisfactory, unsatisfactory, poor, and dangerous, shown in the Survey Sheet as V.G., G., S., U., P., and D. Assessing the position shown by the results in this way allows a general view of the whole to be taken at the finish.

This survey sheet is an important link in the proceedings, as it compels the control assistant (or the managing director, if he has the time and the inclination to do it himself) to go through the charts and results one by one, and to note down whether the movement is favourable or unfavourable. Once the survey sheet is

* An alternative type of Working Capital chart is shown on p. 214 of the author's *Higher Control in Management*, Sixth Edition (Pitman).

completed, a quick revise gives an impression of the new month's result as a whole, and also points to where action should be initiated or continued.

An Example

Perhaps the simplest method of taking the reader through this important final stage in the proceedings is to set out what would actually take place if B.C. & Co. Ltd. had decided in December, year A, that, in future, a monthly financial control survey would be made. It is assumed that monthly sales and profit results for the whole of year A are available, but it is thought unnecessary to work out back financial results—which will, therefore, start in January. The final profit and loss result and the final balance-sheet for year A are ready before the third week in January, so that the December results can be put in as the first point on the charts. January and February results are entered up as they come out, and we now take the survey in April of the position as at the end of March. The procedure will be as follows—

1. The accountant completes his profit and loss account, his balance-sheet, his asset variation and movement of funds statements for March, and his cash forecast statement for April, May, and June.

2. From these he makes up the financial data sheet (Fig. 52) and sends it to the control assistant.

3. The control assistant makes up—

   (*a*) The working sheets for the moving annual average of the trade creditors and the bank overdraft and for the moving annual totals of the discounts lost, the fixed property expenses, the bank interest, the loan capital interest, the taxation payments and the operating profit.

   (*b*) The trend sheets for the above eight items.

   (*c*) The comparison sheets which carry the working data (Figs. 53 and 54).

   (*d*) The set of charts. Since March is the end of the first quarter, the quarterly control charts will also be made up and submitted this month.

4. The control assistant then takes a blank copy of the survey sheet, sets out the charts (either on the wall or on his

B.C. & CO. LTD.

FINANCIAL DATA SHEET

MONTH OF MARCH, YEAR B — Issued 18/iv/B

No.	Item	Results	Notes
		£	
1.	Sales Turnover, Current	28,531	
2.	Final Profit after Adjustment	1,140	
3.	Liquid Assets	31,547	
4.	Working Assets	29,914	
5.	Current Assets (C.C.)	61,461	
6.	Fixed Property Investments	57,552	
7.	Other Fixed Assets	—	
8.	Total Fixed Assets (F.C.)	57,552	
9.	Total All Assets (T.C.E.)	119,013	
10.	Current Liabilities	43,544	
11.	Medium-Term Liabilities	—	
12.	Long-Term Liabilities	10,000	
13.	Total All Liabilities	53,544	
14.	Issued Capital	55,000	
15.	Reserves	5,000	
16.	P. & L. Balance	5,469	
17.	Total Net Worth	65,469	
	Circulating Capital Make-up—		
18.	Cash	315	
19.	Debtors	31,232	
20.	Finished Goods	8,047	
21.	Work-in-Progress	13,103	
22.	Materials	8,764	
23.	Other Current Assets	—	
24.	Total	61,461	
25.	Cash Surplus/Deficit 3 months ahead	S.7,000	
26.	Cash Surplus/Deficit 2 months ahead	S.4,000	
27.	Cash Surplus/Deficit 1 month ahead	S.5,000	
28.	Actual, month past	S.3,500	
29.	Bank Overdraft (this month)	17,124	
30.	Trade Creditors (this month)	21,420	
31.	Discounts Lost (this month)	213	
32.	Fixed Property Expenses (this month)	597	
33.	Net Worth, a year ago	63,674	
34.	Operating Profit (this month)	1,529	
35.	T.C.E. a year ago	108,474	
36.	Bank Interest paid (this month)	62	
37.	Debenture Interest paid (this month)	—	
38.	Taxation paid (this month)	327	

NOTES

Signed—J. Thomas.
Chief Accountant.

FIG. 52

COMPARISON SHEET A

Item	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.
	£	£	£	£	£	£	£
Sales Turnover. Current	26,844	18,137	20,442	28,531			
Cum..	267,500	18,137	38,579	67,110			
M.A.T.	267,500	266,116	265,616	275,058			
Final Profit a.A. Current	217	737	775	1,140			
Cum..	6,227	737	1,512	2,652			
M.A.T.	6,227	6,919	6,573	7,179			
BALANCE-SHEET—							
Liquid Assets	25,000	25,646	27,655	31,547			
Working Assets	38,088	37,057	34,445	29,914			
Current Assets (C.C.)	63,088	62,703	62,100	61,461			
Fixed Prop. Investments	58,013	58,728	58,071	57,552			
Other Fixed Assets	—	—	—	—			
Total F.A. (F.C.)	58,013	58,728	58,071	57,552			
Total All Assets (T.C.E.)	121,101	121,431	120,171	119,013			
Current Liabilities	48,284	47,877	45,842	43,544			
Medium-Term Liabilities	—	—	—	—			
Long-Term Liabilities	10,000	10,000	10,000	10,000			
Total all Liabilities (B.C.)	58,284	57,877	55,842	53,544			
Issued Capital	55,000	55,000	55,000	55,000			
Reserves	5,000	5,000	5,000	5,000			
P. & L. Balance	2,817	3,554	4,329	5,469			
Total Net Worth (O.C.)	62,817	63,554	64,329	65,469			
CIRC. CAP. MAKE-UP—							
Cash	217	327	192	315			
Debtors	24,783	25,319	27,463	31,232			
Finished Goods	13,903	13,572	12,459	8,047			
Work-in-Progress	15,443	14,139	13,884	13,103			
Materials	8,742	9,346	8,102	8,764			
Other Current Assets	—	—	—	—			
Total	63,088	62,703	62,100	61,461			
Revs. per annum	4·23	4·25	4·27	4·31			
Revs. in days	86·5	85·9	85·5	84·7			
MAKE-UP IN DAYS— N.							
Cash . 0·5 .	·3	·4	·3	·4			
Debtors . 30·0 .	34·0	34·7	37·8	43·0			
Finished Goods . 12·0 .	19·1	18·6	17·1	11·1			
Work-in-Progress . 18·0 .	21·1	19·4	19·1	18·1			
Materials . 12·5 .	12·0	12·8	11·2	12·1			
Other Curr. Assets . — .	—	—	—	—			
Total (73·0)	86·5	85·9	85·5	84·7			
WORKING CAPITAL—	20,188	14,826	16,258	17,917			
Represented by—							
L.A. Cash	—	—	—	—			
Debtors	—	—	—	—			
W.A. Finished Goods	—	—	—	—			
Work-in-Progress	11,446	5,480	8,156	9,153			
	74%	39%	59%	70%			
Materials	8,742	9,346	8,102	8,764			
Other C.A.	—	—	—	—			
Total	20,188	14,826	16,258	17,917			
RATIOS—							
Liquid	·58	·54	·60	·73			
Current	1·47	1·31	1·36	1·41			
TRADE CREDITOR MONEY IN CIRC. CAPITAL (%)							
Trade Creditors	23,450	27,427	25,319	21,420			
Percentage	37·2	43·8	40·1	34·9			
CASH SURPLUS OR DEFICIT							
3 months ahead				S.3,000	S.2,250	S.6,000	S.7,000
2 months ahead			S.2,500	S.2,500	S.4,000	S.4,000	
1 month ahead		S.1,500	S.2,000	S.4,000	S.5,000		
Actual		S. 800	D. 2,000	S.3,500			
SALES DAY VALUE							
Current	866	585	731	919			
Cumulative	733	585	653	747			
M.A.T.	733	731	728	753			

FIG. 53

COMPARISON SHEET B

Item	Dec.		Jan.	Feb.	Mar.		Apr.	May	Jun.
	£	£	£	£	£	£	£	£	£
TOTAL CAPITAL EMPLOYED		121,101	121,431	120,171		119,013			
Sales Turnover M.A.T.		267,500	266,116	265,616		275,058			
T.C.E. Turnover p.a.		2·21	2·19	2·21		2·31			
Increase or Decrease T.C.E.		—	+ 330	— 1,260		— 1,158			
OPERATING PROFITS—									
Final Profit after Adj. M.A.T.		6,227	6,319	6,573		7,179			
Add back: Taxation M.A.T.		4,501	4,886	4,634		4,585			
Deb. Interest M.A.T.		600	600	600		600			
Bank Interest M.A.T.		679	680	678		680			
TOTAL		12,007	12,485	12,485		13,044			
T.C.E. a year ago		102,470	103,542	105,303		108,474			
Op. Profit % on T.C.E.		11·7	11·8	11·8		12 0			
FIXED CAPITAL		58,013	58,728	58,071		57,552			
F.C. Turnover p.a.		4·61	4·54	4·57		4·78			
Op. Profit on F.C.		20·7	20·9	21·5		22·6			
BORROWED CAPITAL (EXT.)									
6% Debentures		10,000	10,000	10,000		10,000			
Bank Overdraft M.A.A.		13,588	13,594	13,536		13,545			
Trade Creditors M.A.A.		22,888	23,830	24,406		24,709			
Total B.C. (Ext.)		46,476	47,424	47,942		48,254			
Cost of B.C.									
6% on Debenture		600	600	600		600			
Bank Interest (3 per cent)		408	408	407		407			
Discounts Lost M.A.T.		2,376	2,418	2,327		2,245			
Total Cost, annual		3,384	3,426	3,334		3,252			
Cost, per cent		7·29	7·23	6·96		6·74			
NET WORTH, a year ago		61,974	62,863	63,112		63,674			
Final Profit a.A. on Net Worth		10·1	10·1	10·4		11·3			
FIXED PROPERTY INVESTMENTS (same as Fixed Capital)		58,013	58,728	58,071		57,552			
F.P.I. Turnover do.		4·61	4·54	4·57		4·78			
COST OF F.P.I.—									
F.P. Expenses, M.A.T.		3,845	4,137	4,410		4,745			
Cost per cent		6·6	7·0	7·6		8·2			
F.P. Load on Sales		1·44	1·55	1·66		1·72			
B.S. PERCENTAGES (Quarterly)	£	%			£	%			
TOTAL CAP. EMPLOYED—									
Assets	121,101	100			119,013	100			
Liabilities	58,284	48·2			53,544	45·0			
Net Worth	62,817	51·8			65,469	55·0			
Total	121,101	100			119,013	100			
BORROWED CAPITAL—									
Current	48,284	82·9			43,544	81·5			
Medium-Term	—								
Long-Term	10,000	17·1			10,000	18·5			
Total	58,284	100			53,544	100			
OWNED CAPITAL									
NET WORTH—									
Issued Capital	55,000	87·5			55,000	84·1			
Reserves	5,000	8·0			5,000	7·5			
P. & L. Balance	2,817	4·5			5,469	8·4			
	62,817	100			65,469	100			

FIG. 54

desk) and, with the comparison sheets at hand, studies the position. Fig. 55 shows a convenient arrangement for the charts. The sales turnover and profit cards, T1 and T4, are set to one side, since they do not form part of the financial group. Cash forecast, circulating and working capital charts come next, and the third section is formed by those which deal with the remaining control items. The quarterly charts form a fourth special section to themselves. The author would like to emphasize once again that the twenty-three charts recorded in Figs. 48 and 49 are by no means obligatory. The Managing Director is recommended to begin with a selected few, and add to these by degrees.

The control assistant would consider the movement first, as being the more important aspect of affairs. He would take each chart in turn, making brief notes in the survey sheet as he proceeded, and inserting the rating in each case. Fig. 56 shows this after completion. The following points would come to his notice—

MOVEMENT

(*a*) Debtors have increased for the third successive month, and are now 43·0 days, compared with the standard of 30 days. A glance at the current sales results shows that the sales turnover for March was unusually high, and this coincides with the drop in finished goods from 17·1 days to 11·1 days. The rise in debtors is therefore explained—though as the normal is set at 30 sales days, 43 is unduly high. It will be as well to investigate whether overdue debts cannot be got in.

(*b*) The total capital employed has fallen below the £120,000 taken as normal, and the operating profits trend has fallen also, both in sum and percentage. The profit returning from the increased sales should gradually bring this back to the normal again, and build it up throughout the year. Position should be watched. Whilst it may be good to produce results with as low a capital as possible, if money is allowed to go out of the business unduly, the circulating flow may be impeded.

(*c*) The cost of the fixed property investment is increasing steadily. This is unavoidable, as repairs and maintenance are being undertaken which could not be done previously. The

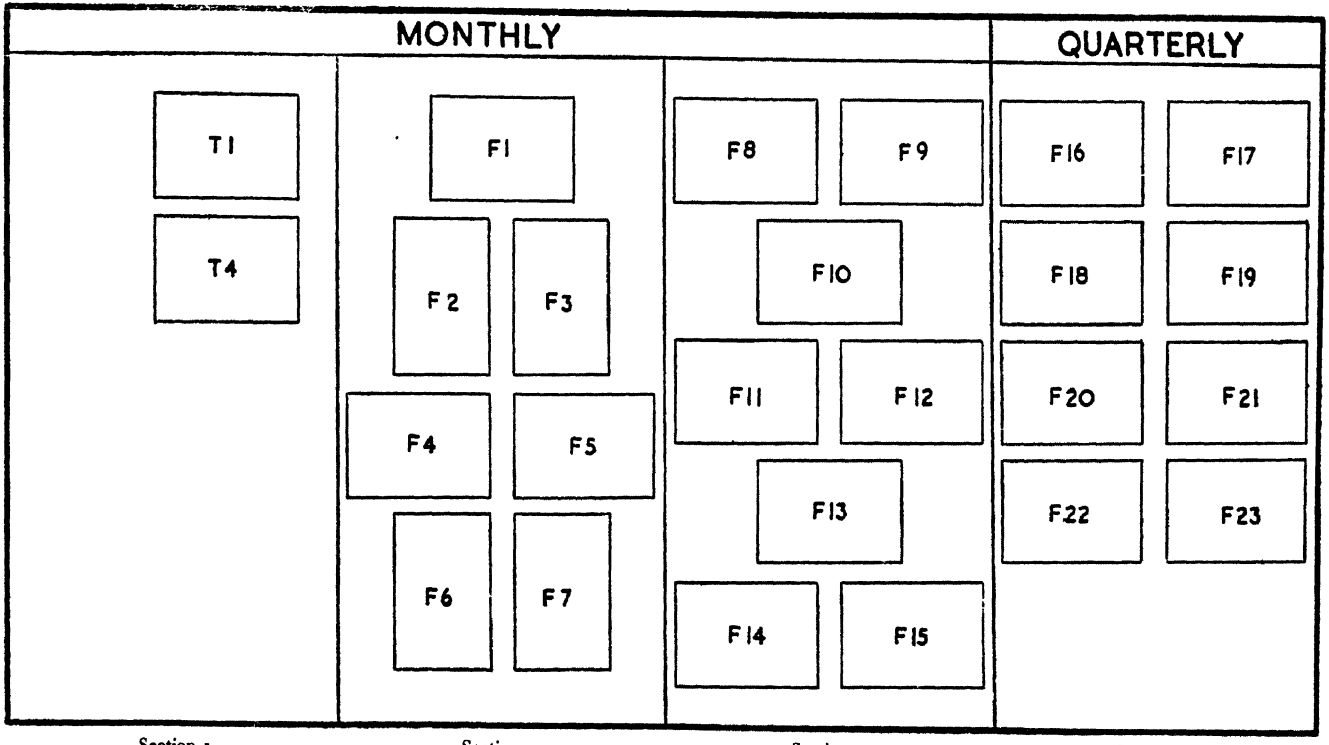

MONTHLY
QUARTERLY
T1
T4
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
F12
F13
F14
F15
F16
F17
F18
F19
F20
F21
F22
F23
Section 1
Section 2
Section 3
Section 4

FIG. 55

B.C. & CO. LTD.
FINANCIAL SURVEY SHEET
FOR THE MONTH OF MARCH, YEAR B

Item	Chart	POSITION			
		This Month	Rating	Movement	Rating
Cash Forecast	F.1	Actual March close to final estimate	G	Good surplus ahead for 3 months	G
Circulating Capital Flow-Speed	F.2	Improved from 85·5 to 84·7 days	U	3rd succ. imp.	S
Make-up	F.3	Finished Goods reduced from 17·1 days to 11·1 days	G	3rd succ. imp.	G
		Debtors increased from 37·8 days to 43·0 days.	B	3rd succ. worsening	B
Total and R.P.A.	F.4	Total lowest this year.	S	3rd succ imp.	S
		R.P.A. up from 4·27 to 4·31.	S	3rd succ. imp.	S
Value of Sales Day.	F.5	Highest this year.	G	1st recovery.	S
Wkg. Cap. Make-up.	F.6	Still not liquid enough	U	3rd succ. imp.	S
% Cover	F.7				
Liquid Ratio	F.8	Above normal now	S	2nd succ. imp.	S
Current Ratio.	F.8	Below normal still.	U	2nd succ. imp.	S
Cred. Mon. in Circ. Capital.	F.9	Still too high	U	2nd succ. imp.	S
Fixed Capital—					
Turnover	F.10	Going Faster.	S	3rd succ. imp.	S
Profit	F.10	Highest this year.	S	3rd succ. imp.	S
T.C.E.					
Total (Increase or Decrease).	F.11	Below normal, this month decrease of £1158	U	3rd succ. decrease	U
Operating profit.	F.12	Above average	S	3rd succ. increase	S
Turnover and					
Annual Profit %	F.13	Turnover best this year	S	3rd succ. imp.	S
	F.13	Profit % risen by ·2	S	Improving	S
Cost of borrowed capital p.a.	F.14	Lowest this year.	S	2nd succ. decrease	S
Profit on Net Worth	F.15	Best this year.	S	2nd succ. imp.	S
QUARTERLY					
FIXED PROPERTY INVESTMENT.					
Turnover	F.16	See F.9.	S		S
Cost of—	F.17	Increase of 1·6%	U	Worsening steadily	U
Load on Sales.	F.17	Increase of ·28%.	U	Worsening steadily	U
T.C.E.					
Make-up	F.18	Total falls, net worth increase	S	—	—
%	F.19	Net Worth + 3·2%	S	—	—
BORROWED CAPITAL					
Make-up	F.20	Total falls, Current Liabilities decrease	S	—	—
%	F.21	Current Liabilities − 1·4%.	S	—	—
OWNED CAPITAL					
Make-up	F.22	Total risen, P. and L. increase.	S	—	—
%	F.23	P. and L. + 3·9%.	S	—	—

FIG. 56

present 8·2 per cent may rise to 10 per cent or even higher, and will then fall again. The load on sales follows it, but since the sales are rising, the load will not be so marked.

Movement Summary: No unfavourable tendencies that are not explained; debtors should be reduced if possible and the falling total capital watched.

The control assistant then passes on to the

CURRENT POSITION

(*a*) Circulating Capital Flow-Speed.	Unsatisfactory—present speed 84·7 days, normal 73 days. Decrease of debtors would help this, and increase of sales.
(*b*) Circulating Capital Make-up.	Debtors—explained above.
(*c*) Working Capital (Percentage Cover)	70 per cent of work-in-progress; normal 90 per cent. Due to working capital being too low. (Normal £23,500.)
(*d*) Current Ratio	Too low, due to too much of the circulating capital, which ought to be in the working assets, being left in the debtors.
(*e*) Creditor Money	Should be further paid off when possible.
(*f*) T.C.E.	Reduction of £1158 due to decrease of working assets without adequate increase of liquid assets. Finished goods fell by £4412, debtors rose by £3892. Discrepancy due to cash sales used to pay off creditors.
(*g*) Fixed Property Investments	Increase expected and according to plan.

Current Summary: Nothing of serious importance. Debtor position should be improved.

THE FINANCIAL CONTROL SUMMARY

Having made his notes and studied the movement of funds statement, the control assistant can then prepare the financial

control summary for March. This can be quite brief, in this instance, somewhat on the following lines—

B.C. & CO. LTD.
FINANCIAL CONTROL SUMMARY
FOR THE MONTH OF MARCH, YEAR B

A. FINANCIAL POSITION

1. MOVEMENT

All indications favourable or explained, except debtors, which are rising, and total capital employed, which is showing a tendency to diminish and is now 1·7 per cent less than at the end of last year.

2. CURRENT POSITION

The circulating capital flow-speed is still too low, and needs increased sales turnover value to improve it. The debtor position should be investigated, and the somewhat excessive figure explained. Creditors are still on the high side.

B. MOVEMENT OF FUNDS (ex Asset Variation Statement)

Funds to the extent of £8453 have moved in the business this month. This sum was obtained as follows: £4412 by the sale of finished goods from stock, £1601 from the bank by increase of the overdraft, £1140 from profit coming into the business, £781 by reducing the work-in-progress, and £519 by depreciating the fixed assets.

It was expended as follows: £3899 in paying off creditors, £3769 in increasing credit to debtors, £662 in increasing material stocks and the remaining £123 went to increase the cash fund.

Comment: The bank overdraft, at £17,124, is at its highest point this year, though well within the permissible limit of £20,000. Attention has already been drawn to the debtor position. Otherwise nothing for special comment in the movement of funds.

General Summary: A satisfactory month, with the financial position of the company steadily improving.

At first sight some readers may feel that this is a disappointingly small mouse to emerge from such a mountain of statements, schedules, and charts. But a moment's thought will show that the more satisfactory the condition of a company, the less there is to say about it. Controlling a business is very like controlling a car, as has already been pointed out elsewhere. The good driver sitting at the controls is alert, watching his dials and "feeling" the engine as it responds to his foot on the accelerator, ready for any emergency—but physically doing little or nothing, his hands only holding the car to the road. So in financial control, the good controller has, more often than not, little need to do more than watch his dials and give the touch from time to time that keeps the company on the high road to success. If external difficulties come into sight ahead, he can adjust his action to meet them. If internal troubles begin to show, his chart system—if it has been properly constructed—will tell him so without fail, and immediately. He can then alter his policy or his methods to get back into smooth running, long before any real danger to his company has arisen.

All this can be obtained by the simple process of checking and recording the movement of the figures each month, on the lines outlined above. It requires no expert knowledge of accountancy, of banking, or of finance to produce the control figures and charts from the data sheet—it can be done by an intelligent boy or girl in a few hours. To read and understand the control results, however, requires a knowledge of the business and the policy being pursued. That cannot be done by a boy or girl—though the standard of intelligence required to make up the financial control summary for the managing director is certainly not an exacting one. What is indispensable is a high standard of accountancy. Without that the whole framework is unsound and even dangerous.

Good Accounting Imperative

If the accounts are not correct and up to date, then the control results will be misleading and the method were better not used at all. For the financial control results show effects—the effect of the movement of funds during the past month under review. They also show the trend of movement and what is likely to occur if those effects persist. They do not, and cannot, show causes—

those must be found and examined if the concern is to be managed by plan and not by event. If, therefore, the managing director, seeking for causes, starts with incorrect effects, he may be betrayed into making decisions which are wrong, because the information submitted to him was wrong.

When an industrial or commercial undertaking is running smoothly and normally, the curves will vary very little from the normals set, and many months may pass in which each monthly financial control survey will merely be a repetition of "All's well." But if the company begins to expand without adequate funds, or if the sales turnover begins to fall away and losses arise, the inter-locking of the figures will ensure that the control checks begin to move, and the charts will start swinging up or down from the normal if the management has not planned the change beforehand on sound lines. The state of affairs, whatever it may be, will be clearly shown.

Conclusion

The structure of industrial accounts is capable of infinite variety, and those who have expert experience in the field of accountancy can, without difficulty, find examples in which much that has been stated in this volume would not ring true. But if any attempt is to be made to set out the conditions which govern the internal finance of industrial undertakings, so that general rules of guidance can be deduced for the normal business, it can only be done by deliberately leaving out of consideration the special cases and unusual factors. They belong to a more detailed field of research, and should be handled only by the experts who can evaluate their significance in balance-sheet terms. In the ordinary industrial concern such complications do not arise, and to discuss them would only confuse the issue without offering any real advantage. It is to those who manage ordinary concerns that this book is offered, in the hope that it may enable them to see, perhaps a little more clearly than they have done before, how the money moves in a business.

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The author would be grateful to any readers who would be good enough to send him suggestions of any books relating to the subject, which have been omitted from this list.

INDEX

Accountant, The, 53
Accountant, the manager and the, 86
Accountant's time-table, 85
Accruals, 139
Amongst the Balance Sheets, 103
Analysing Financial Statements, 34, 107
Analysis of balance sheets, 46
Asset variation statement, 165–71
Assets column, 7
——, current, 48, 203
——, definitions of various categories, 48
——, fictitious, 36, 44, 49, 110, 203
——, fixed, 34, 48, 106, 108
——, intangible, 35, 43, 49, 109, 203
——, investments as, 42
——, liquid, 36, 48, 124, 151
——, loss shown as, 7
——, tangible, 31, 35, 40, 42, 48 9, 106, 203
——, various, 191
——, working, 34, 37, 48
Authorized capital, 19

BALANCE-SHEET, 36, 51–65
—— —— analysis, 46
—— ——, attempts to improve, 53 *et seq.*
—— —— entries, 31, 52
—— —— figures for monthly control, 59
—— ——, final, 58
—— ——, function of, 66
—— ——, interim, 58
—— ——, taking apart the, 204
—— —— values, 41
Balance Sheet Values, 44 n., 109
Banker as a Lender, The, 206 n.
Banker's net worth, 204
—— viewpoint, 199–206
Bank interest on deposit account, 14
—— overdraft, 22–3, 124, 131, 192, 202
Berlanny, S. S., 68 n.
Bills, commercial, 197
Bliss, James H., 57, 91 n., 96–7, 101, 112, 113 n., 132
Borrowed money, 18, 20–2
—— ——, repayment of, 24
Bray, F. S., 3 n.
Business Investigations, 68 n.
Business, the small, 195

CAPITAL, authorized, 19
——, borrowed, 91, 127–32
——, ——, cost of, 129
——, circulating, 7 *et seq.*, 48, 91, 186 *et seq.*
——, ——, flow-speed of 115–26, 183
Capital, circulating, investment, 117
—— employed, turnover of total, 88, 90–104
—— expenditure authorized, 10
——, fixed, 7, 9, 16, 48, 91
——, ——, control, 110
—— investment, working, 148
—— issued, 19
——, long-term loan, 131
—— owned, 91
—— resources, fixed, 190
—— structure, 129
——, working, 147–64, 219
——, ——, cash forecast, 147–64
Cash section, 124
Cashier, 15
Chart, cash forecast, 213–16
——, circulating capital flow-speed, 216
——, control, 208
——, liquid margin or deficit, 213
—— presentation, 211
—— technique, 212
——, working capital percentage cover, 219
Circulating capital, 7 *et seq.*, 48, 186 *et seq.*
—— —— asset value, 41
—— —— flow-speed, 115–26, 183, 216
Colesworthy, H. E., 55
Collateral security, 204
Collin Brooks, 164 n.
Commercial activities, 2
—— bills, 197
Commitment record, 145
Companies Act, 1929, 27
Company Finance, 164 n.
Comparison intervals, 166
—— sheet, 59, 78, 220, 222–3
Comparisons, monthly, 121
Contingencies, 28
Control charts, 208
——, exception, 90
——, financial, 207–30
—— investment, fixed, 105–14
—— management, 55 *et seq.*
——, monthly, 59
—— of internal finance, 207 *et seq.*
——, total, 90
—— work, 88 *et seq.*
Credit, 136
Creditor borrowing, 20–2
—— money, 129
—— ——, dangers of, 139
—— ——, theoretical normals of, 142
—— position, watching the, 143
Creditors, 20, 138–46

Creditors,, government, 138
——, sundry, 139
——, trade or commercial, 138
Current assets, 48, 203
—— liabilities, 10, 24–5, 31

DEBENTURES, 194
—— stock issue, 23
Debt collection, 137, 187
Debtor-creditor ratio, 143
—— statement, 135
Debtors, 133–8
——, government, 133
——, sundry, 134
——, trade, 134
Debts, frozen, 137
Detail sheet, 61
Directors, information for, 55 *et seq.*
Discount for quick payments, 17
Dividends, 95, 102

EQUITY, trading on the, 127–32
Errors, multiplying, 84
Exceptional trading expenses, 71
Exception control, 90
Excess Profits Duty, 97
—— —— Tax, 98
Expense reduction, 183
Expenses from circulating capital, 25
External reservoirs, 14

FACTORY surplus (or deficit), 73
Falling turnover, 182
Fictitious assets, 36, 44, 49, 110, 203
Final balance-sheets, 58
—— profit (or loss) for the period, 73
—— —— —— —— after adjustment, 76
Finance Act of 1915, 97
——, internal, 1–4
—— (No.2) Act of 1939, 98
—— plan, 163
Financial and Operating Ratios in Management, 57, 91, 113 n.
Financial control summary, 227
—— data sheet, 220–1
—— structure, 22
—— survey sheet, 226
Finished goods stock, 37–9, 80, 189
Finnie, David, 68 n.
Fixed asset expansion, dangers of, 108
—— assets, 34, 48, 106, 108
—— capital, 7, 9, 16, 48
—— —— control, 110
—— —— investment, 105–14
—— —— resources, 190
—— property expenses, 112
—— —— investment, 35, 48
Foulke, 66 n.

Frozen debts, 137
Funds, 45
——, additional, 186–98
—— statement, movement of, 169
—— surplus, 6

GARNSEY, Sir Gilbert, 39, 82 n.
Gilman, Stephen, 34 n., 107
Goodwill, 109
Government creditors, 138
—— debtors, 133
Gross trading profit (or loss), 72–3
Guarantees, joint and several, 205
——, personal, 204–6

Higher Control in Management, 4 n., 83 n., 89, 219 n.
How to read the Balance Sheet of a Commercial Concern, 45

INDUSTRIAL activities, 2
Information, sources of, 51 *et seq.*
Inland Revenue authorities, 13, 30
Institute of Chartered Accountants, 28
Intangible assets, 35, 43, 49, 109, 203
Interest, rate of, 94–7, 202
Interim balance-sheets, 58
Internal finance, 1–4
—— reservoirs, 14
Inventory, perpetual, 4
Investments, 14
—— as assets, 42
——, circulating capital, 117
——, fixed capital, 105–14
—— of reserves, 45
——, trade, 43
——, unwise, 4
——, working capital, 148
Invoice entries, delay in, 146
Issued capital, 19

JOINT and several guarantees, 205

LEAKE, P. D., 44 n., 109
Liabilities, 145
——, accrued, 31
—— and net worth, 26–7
—— column, 7
——, current, 10, 24–5, 31
——, definitions of various categories, 31
——, long-term, 25, 32
——, maturing, 32
——, medium-term, 25, 32
Limitations of the Balance-sheet, 82 n.
Liquid assets, 36
Liquidity, 34
——, importance of, 149
Loans, personal, 131
Long-term liabilities, 25, 32
—— —— loan capital, 131

Loose tools, 42
Loss shown as asset, 7

MACMILLAN report, 195
Management and the money, 15
—— accounting, 3, 58, 170
—— control, 55
——, planned, 100
Matters arising, 172 *et seq.*
Measurement, physical unit, 112
Money, borrowed, 18, 20–2
——, ——, repayment of, 24
——, external reservoirs for, 14
—— in the business, 4 *et seq.*
——, management and the, 15
——, movement of the, 10, 88 *et seq.*
—— owned, 22
——, source of, 19 *et seq.*
——, whereabouts of, 33 *et seq.*
Monthly comparisons and annual results, 121
—— control, 59
Mortgages, 195
Movement, 224, 227
—— of funds statement, 169

NARRATIVE lay-out of profit and loss account, 69
Net profit (or loss) on the going concern, 72–3
—— trading profit (or loss), 73
—— worth, definition, 20
Normal turnover, 172
Notes, 195

OUT-PAYMENTS, 13
Output compared with sales, 70
Over-capitalization, 110
Overdrafts, 22–3, 124, 131, 192, 202
Over-expansion, 108
Over-trading, 172–85
—— ——, dangers of, 178
Owned money, 22

PARKINSON, Hargreaves, 28, 110
Personal loans, 193
Physical unit measurement, 112
Pixley, 45
Planned management, 100
Pollen, A. H., 4 n.
Pollitt, E. H., 53–7, 64
Practical Bank Credit, 66 n.
Practical Directorship, 55
Pre-payment, 134
Prochnow, 66 n.
Profit, 17
—— after adjustment, final, 96–7
—— and loss account, 66–87
—— —— ——, adjustments in, 73, 85
—— —— ——, advantages of new method of, 76
Profit and loss account, disadvantages of old method of, 67
—— —— ——, narrative lay-out of, 69
——, incidence of, 93 *et seq.*
—— on net sales, net, 101
—— —— ——, 102
—— —— sales turnover, 98
——, the operating, 96, 99
Property expenses, fixed, 112
Provisions, 28–9, 31, 45, 167
Pryor, G. R., 145

Recommendations on Accounting Principles, 28
Research, 125
Reserve fund, 45
Reserves, 26–31
——, capital redemption, 29
——, dividend equalization, 29
——, general, 29
——, investment of, 45
——, secret, 30
——, tied, 31
Rising turnover, 174

SALES turnover, 172
—— ——, profit on, 98
Scientific Investment, 28, 110
Seasonal effect, 173
Secret net worth, 170
—— reserves, 30
Sheasby, H. B., 3 n.
Small business, the, 195
Steele, F. E., 206 n.
Stock, 188, 203
——, finished goods, 37–9, 80, 189
—— problems, 38
——, raw material, 37
—— valuation, problems of, 82
Sundry creditors, 139
—— debtors, 134
Surplus, 73
—— funds, 6
—— on trading, 19

TANGIBLE assets, 31, 35, 40, 42, 48–9, 106 203
Taylor, F. W., 90
Time-period variations, 16
Times, The, 53
Tools, loose, 42
Total capital employed, 5 *et seq.*, 88, 90–104
—— control, 90
Trade cycle variations, 92
—— debtors, 134
—— investments, 43
—— or commercial creditors, 138
Trading on the equity, 127–32
Turnover, falling, 182

Turnover, normal, 172
—— of total capital employed, 88, 90–104
——, rising, 174
——, sales, 98, 172

UNDER-TRADING, 182–5

VALUES, balance-sheet, 41
Valuing assets, 40
Valuing stocks, 39
Variation statement, asset, 165–71
Variations, time-period, 16

WORKING assets, 34, 37, 48
—— capital and the cash forecast, 147–64
—— —— investment, 148
—— —— percentage cover chart, 219
Work-in-progress, 80, 189, 203
—— —— value, 39