

LKC
E
78
.C2
052
1991

IC



Industry, Science and
Technology Canada

Industrie, Sciences et
Technologie Canada



THE ONE-BOOK ACCOUNTING SYSTEM:

A Guide For Small Manufacturers

Canadian
Aboriginal
Economic
Development
Strategy

Stratégie
canadienne de
développement
économique des
Autochtones

Canada 



**THE ONE-BOOK
ACCOUNTING SYSTEM:**

**A Guide For
Small Manufacturers**

Industry Canada
Library - Queen
MAR - 3 2011
Industrie Canada
Bibliothèque - Queen

Reference Collection / Collection de référence

SECTOR

Goods

Manufacturing

SECTEUR

Biens

Fabrication

**THE ONE BOOK ACCOUNTING SYSTEM:
A GUIDE FOR SMALL MANUFACTURERS**

© 1991 The Manitoba Institute of Management, Inc.

TABLE OF CONTENTS

INTRODUCTION	1
PART A	FINANCIAL RECORDS	3
PART B	FINANCIAL STATEMENTS	27
PART C	FINANCIAL ANALYSIS	43
APPENDIX	BLANK FORMS	55

INTRODUCTION

This book is one of a series of four one-book accounting system guides written and prepared by the Manitoba Institute of Management Inc. (MIM). They have been produced through funding from Industry, Science and Technology Canada for the Research and Advocacy Program of the Canadian Aboriginal Economic Development Strategy, and are designed to assist Aboriginal people across Canada to achieve sound financial management through the use of basic accounting practices. The titles in the series are:

Small Retailers
Small Wholesalers
Small Service Business
Small Manufacturers

These guides are available by contacting an Aboriginal Business Development Program Officer in your region about your proposed business project.

The One Book Accounting System book provides clear, step-by-step instruction in basic accounting procedures specifically designed for new or existing manufacturing businesses. The System allows you to record all of your financial transactions in one book. This recorded information can provide you with a clear picture of where your business stands at any given time, which is the key to sound financial management.

There are three major parts to System:

PART A FINANCIAL RECORDS

PART B FINANCIAL STATEMENTS

PART C FINANCIAL ANALYSIS

This book is designed as a counselling guide. It is the experience of MIM that it is most effective if you complete one section at a time. In this way, you can concentrate on one area without being overwhelmed by the total subject matter. When you feel confident about your understanding of one section, then you will move on to the next. Should you have questions about the information in this book, please contact the business development officer who provided it to you.

THIS GUIDE IS DESIGNED TO ASSIST THE READER TO DEVELOP SOUND FINANCIAL ANALYSIS OF A NEW OR EXISTING ENTERPRISE BUT CANNOT GUARANTEE SUCCESS IN BUSINESS.

NOTE THAT THE EXAMPLES USED ARE NOT OF ANY ACTUAL BUSINESSES AND ARE PROVIDED SOLELY FOR THE PURPOSES OF EXPLAINING THE ELEMENTS OF AN ACCOUNTING SYSTEM.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means: electronic mechanical, photocopy, recording or otherwise without the prior written permission, including waivers, from The Manitoba Institute of Management Inc.

Copyright 1991
by
The Manitoba Institute of Management

PART A FINANCIAL RECORDS



STEP ONE

GETTING STARTED

Examine Figure 1 on page 7. This example details the format for the One Book Accounting System for Small Manufacturers. You will notice that there are twenty columns. These twenty columns are sufficient to handle any financial transactions that are likely to occur in your business.

Now examine the column descriptions. The first three columns, for instance, represent the "cash" account and are used to record cash received, cash paid out, and the cash balance. You will find another three columns representing monies paid in, monies paid out and the balance under each of the three subsequent headings which include the "bank" account, accounts receivable, accounts payable.

All the other items you would need to record are included here, except a breakdown of expenses. Notice that column twenty is intended for recording all expenses. (You will find an easy way to keep track of expense information in Figure 2).

Before proceeding any further, however, let us first define what is meant by each account category, taking them in turn as they appear in the Figure 1. At the outset, it is important to clarify what kind of information belongs in each category.

CASH (Columns 1 to 3) consists of funds that are immediately available to use without restrictions. Cash includes currency and coin, cheques awaiting deposit, bank drafts, and money orders.

BANK (Columns 4 to 6) includes money on deposit with the bank, usually in the form of a current account.

ACCOUNTS RECEIVABLE (Columns 7 to 9) are amounts owed to the company, usually by customers who have made credit purchases. This category might also include claims for income tax refunds or general sales tax (GST) rebates.

ACCOUNTS PAYABLE (Columns 10 to 12) are short-term liabilities owed by the company to its suppliers and other vendors or agencies. These accounts usually arise from the purchase of merchandise or services.

OTHER ASSETS (Column 13) are all assets owned by the business other than Cash, Bank Deposits, or Accounts Receivable. In most instances these assets will be equipment which has a relatively long life and are used in the operation of the business. These assets, commonly called fixed assets, are owned by the business and are not intended for resale. In this column you would record the present dollar value of your fixed assets.

OTHER LIABILITIES (Column 14) include all debts other than Accounts Payable such as deferred revenues, mortgages payable, and bank loans.

OWNER'S INVESTMENTS (Column 15) are the funds and assets invested in the company by the owner(s). Again, the present dollar value is used when assets other than cash make up the investment. The total of all owner's investment plus retained earnings represent the owner's equity in the company.

OTHER INCOME (Column 16) arises from events and transactions significantly different from the customary business activities of the company. Generally, other income will include revenues such as rent, interest, and miscellaneous sources other than sales.

GROSS SALES (Column 17) are the revenues from the sale of merchandise or services during the normal operations of business. Sales Tax is treated as an Account Payable and is not included in Gross Sales.

SALES RETURNS (Column 18) includes all discounts or allowances to customers on the sale of merchandise, as well as returns of merchandise sold. Sales Returns subtracted from Gross Sales (Column 17) equals Net Sales.

PURCHASES (Column 19) are the landed costs of merchandise and/or services acquired for the purpose of resale.

EXPENSES (Column 20) are the costs of running a business. Some typical expenses are salaries, utilities, advertising, supplies, and interest. Note that the cost of goods acquired for resale should be treated as Purchases (Column 19) rather than Expenses.



Now examine Figure 2 on page 11. Here you will find the Expense Distribution detailed in Columns 21 to 40. Note the similarity of the formats between the Expense Distribution (Figure 2) and the One Book (Figure 1). You can transpose the expense entries you have recorded in Column 20 of the One Book to the appropriate Expense Distribution when time permits. The total expenses in the Expense Distribution should always equal the Expense column total, (Column 20 in the One Book), featured in Figure 1.



EXAMPLE: ABC MANUFACTURING COMPANY

Figure 2- Expense Distribution

			21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
	DATE	REMARKS	CHEQUE	FACTORY DIRECT LABOUR	FACTORY EMPLOYEE BENEFITS	FACTORY SUPPLIES EXPENSE	UTILITIES	REPAIR & MAINTENANCE	FACTORY SUPER SALARIES	PROPERTY & BUSINESS TAX	INSURANCE EXPENSE	RENT	ADVERTISING	DELIVERY	OFFICE SUPPLIES	OWNER'S SALARY	ADMIN. SALARIES	OFFICE EMPLOYEE BENEFITS	TELEPHONE	INTEREST	DUES & LICENSES	LEGAL & AUDIT	OTHER
1																							
2	Mar. 1	Bullet Transfer												5.00									
3	Mar. 1	Cash Short																					1.00
4	Mar. 2	Supplies Expense			70.00																		
5	Mar. 2	Charge off bad debt																					65.00
6	Mar. 2	X.Y. Rent Co.	3											60.00									
7	Mar. 2	A.B. Smith	4	307.00																			
8	Mar. 2	Receiver General	5		78.00																		
9		etc.																12.00					
10		etc.																					
11		etc.																					
12		etc.																					
13																							
14																							
15																							
16																							
17																							
18																							
19																							
20																							
21																							
22																							
23																							
24																							
25																							
26																							
27																							
28																							
29																							
30																							
31	Mar. 31	TOTAL MONTH		16,120.00	1,020.00	250.00	380.00	30.00	3,410.00	660.00	660.00	4,760.00	4,525.00	3,660.00	420.00	3,430.00	5,100.00	700.00	220.00	450.00	400.00	650.00	825.00
32																							
33																							
34																							
35																							
36	Mar. 31	YEAR-TO-DATE		45,600.00	2,880.00	700.00	1,090.00	170.00	9,600.00	1,640.00	2,340.00	13,460.00	13,575.00	11,640.00	1,260.00	8,360.00	15,300.00	2,700.00	660.00	1,350.00	1,200.00	1,950.00	2,475.00



STEP 2 USING THE "IN" AND "OUT" RULE TABLE

The "In" and "Out" Rule Table in Table 1 gives you a breakdown of almost every transaction that is likely to occur in a manufacturing business and tells you how to record it. If you follow the Rule Table closely, you shouldn't go wrong. The left hand column lists 32 different business transactions while the remaining two columns tell you where to record the "In" and "Out" amounts. Every transaction must have at least two entries. The amount of the "Ins" must always equal the amount of the "Outs". Follow the examples in Figure 3, "In/Out" Example Entries.

	TYPE OF TRANSACTION	IN COLUMN TITLE	COL #	OUT COLUMN TITLE	COL #
A	CASH SALES	CASH - RECEIVED	1	GROSS SALES	17
B	CREDIT SALES	A/R - RECEIVABLE	*7	GROSS SALES	17
C	SUNDRY CASH SALES	CASH - RECEIVED	1	OTHER INCOME	16
D	SUNDRY CREDIT SALES	A/R - RECEIVABLE	*7	OTHER INCOME	16
E	SALES TAX COLLECTED	CASH - RECEIVED	1	A/P - PAYABLE	*11
F	RETURNED SALES FOR CASH	SALES RETURNS	18	CASH - PAID OUT	2
G	RETURNED SALES FOR CREDIT	SALES RETURNS	18	A/R - COLLECTED	*8
H	ALLOWANCE ON CREDIT SALES	SALES RETURNS	18	A/R - COLLECTED	*8
I	DISCOUNTS GIVEN	SALES RETURNS	18	A/R - COLLECTED	*8
J	BANK WITHDRAWAL	CASH - RECEIVED	1	BANK - WITHDRAWAL	5
K	RECEIVED ON ACCOUNTS	CASH - RECEIVED	1	A/R - COLLECTED	*8
L	CHARGE OFF BAD ACCOUNTS	EXPENSES	**20	A/R - COLLECTED	*8
M	FIXED ASSET PURCHASE BY CASH	OTHER ASSETS	13	CASH - PAID OUT	2
N	FIXED ASSET PURCHASE BY CHEQUE	OTHER ASSETS	13	BANK - WITHDRAWAL	5
O	FIXED ASSET PURCHASE BY CHARGE	OTHER ASSETS	13	A/P - PAYABLE	*11
P	INVENTORY PURCHASE BY CASH	PURCHASES	19	CASH - PAID OUT	2
Q	INVENTORY PURCHASE BY CHEQUE	PURCHASES	19	BANK - WITHDRAWAL	5
R	INVENTORY PURCHASE BY CHARGE	PURCHASES	19	A/P - PAYABLE	*11
S	EXPENSE PAYMENT BY CASH	EXPENSES	**20	CASH - PAID OUT	2
T	EXPENSE PAYMENT BY CHEQUE	EXPENSES	**20	BANK - WITHDRAWAL	5
U	EXPENSE PAYMENT BY CHARGE	EXPENSES	**20	A/P - PAYABLE	*11
V	RETURNED PURCHASE FOR CASH	CASH - RECEIVED	1	(PURCHASES)	19
W	RETURNED PURCHASE FOR CREDIT	A/P PAID	*10	(PURCHASES)	19
X	PAYMENT OF CHARGE PURCHASES	A/P PAID	*10	BANK - WITHDRAWAL	5
Y	SALES TAX PAYMENT	A/P PAID	*10	BANK - WITHDRAWAL	5
Z	CASH BALANCE SHORT	EXPENSES	**20	CASH - PAID OUT	2
AA	BANK DEPOSITS	BANK - DEPOSITS	4	CASH - PAID OUT	2
BB	CUSTOMER'S CHEQUE RETURNED (NSF)	A/R - RECEIVABLE	*7	BANK - WITHDRAWAL	5
CC	BANK LOAN	BANK - DEPOSITS	4	OTHER LIABILITIES	14
DD	LOAN REPAYMENT BY CHEQUE	(OTHER LIABILITIES)	14	BANK - WITHDRAWAL	5
EE	INTEREST ON LOAN	EXPENSES	**20	BANK - WITHDRAWAL	5
FF	INCREASE CAPITALIZATION	BANK - DEPOSITS	4	OWNER'S - INVESTMENT	15

* Also posted to sub-ledger
 ** Also posted to expenses distribution

A/R - Account Receivable
 A/P - Accounts Payable





- Example 1** Take the first transaction, A, a straight-forward cash sale of \$150. The "In/Out Rule Table" instructs you to enter the "in" amount to Cash Received, Column 1, and the "out" amount to Gross Sales, Column 17. If you trace this through to the same line of the example in Figure 3, you will see that this has been done.
- Example 2** Now look at the second transaction, B, a similar sale but this time for credit. The entry is the same except that the "in" amount is entered to Accounts Receivable - Receivable, Column 7, instead of Cash - Received, Column 1, as in the previous example. Notice that the symbol (*) appears in the "In/Out Rule Table" for this transaction. If you refer to the footnote at the bottom of the table you will see that the symbol indicates that you should also post the amount to a sub-ledger for Accounts Receivable.
- Example 3** Skip down the Rule Table to transaction T, an expense payment by cheque. A \$60 cheque is made out to the X.Y. Rent Co. for rent. If you trace this through to Figure 3 you'll find a \$60 "in" entry to Expenses, Column 20, and a \$60 "out" entry to Bank - Withdrawals, Column 5. This time the symbol (***) appears on the Rule Table and the footnote at the bottom indicates that you should also enter the \$60 rent expense to the Expense Distribution sheet. Although not shown, the amount would be entered to Rent, Column 29 of the Expense Distribution.
- Example 4** Finally, look at transaction V in the Rule Table, a returned purchase for cash. Goods are returned to a supplier and \$25 cash is received. An entry for \$25 is entered as an "in" to Cash - Received, Column 1, and as an "out" to Purchases and Freight, Column 19. (This is a bit tricky so read carefully.) Notice that the amount is a bracketed entry to Column 19. Brackets are used to change an amount to "in" if it is entered to an "out" column, and to an "out" if it is entered to an "in" column. In this case the brackets appear in the Purchase column so the latter applies.

STEP 3 KEEPING THE SYSTEM BALANCED

Remember that the sum of all the "In" entries must equal the sum of all the "Out" entries. You can check this quickly by totalling each column and then comparing the sum of all the "In" columns to the sum of all the "Out" columns. Any difference indicates that you have made an error. It is a good idea to balance each line every time you make an entry, so that it never becomes a big job to find an error.

The first four categories in the One Book keep "*running tallies*" on Cash, Bank, Accounts Receivable, and Accounts Payable. At any time, the balance should agree to actual counts. If they do not, you have made an error and need to check your addition and subtraction.

STEP 4 SETTING UP YOUR BOOKS

Starting the One Book Accounting System for Manufacturers is a simple matter, whether you're setting up a set of books for a new business or switching to this system for an existing business.

If you are starting up a new business, you can begin making your entries by following the In/Out Rule Table.

Figure 4, System Start-up, is a sample illustration of a new business's first entries to the One Book. Note the following steps, referring to the In/Out Rule Table as necessary.

- 1) **Initial Financing**, the first entry, indicates the company's start-up capital. According to the Rule Table, a bank loan for \$12,000 is recorded under Other Liabilities (Column 14) and the owner's contribution of \$13,000 is entered under Owner's Investment (Column 15). Therefore, the total start-up capital in the amount of \$25,000 appears here in Column 4.
- 2) **Cash on Hand**, the second entry, indicates a Bank Withdrawal of \$100, duly entered in Column 5. Note that the owner has subtracted this withdrawal from the forward balance and recorded the revised balance in Column 6. The Rule Table states that a Bank Withdrawal will appear as Cash Received, (Column 1) the corresponding "In" Column. The owner also keeps a running tally of his cash balance in Column 3.
- 3) **Purchase of Assets**, the third entry, indicates two different kinds of goods acquired. The first purchase for \$5,000 entered in Other Assets (Column 13) is likely for a fixed asset such as warehouse shelving. The second purchase for \$15,000 entered in Purchases and Freight (Column 19) is for freight charges and initial stock. The owner has therefore spent \$20,000 and he enters this amount in Bank - Withdrawals (Column 5). He continues to keep a running tally of his bank balance, as indicated in Column 6.

In Figure 4, some rules have been combined to show you that it's the amount of the *Ins* and *Outs* which must balance, not the number of each. In following the Rule Table you will have also noticed that you do not necessarily move from left to right across the page as you are making your entries. Once you have identified the transaction you wish to record within the Rule Table, you simply follow the basic In/Out entry rules.

Now if you own an existing manufacturing business, you would begin by setting up the formats for the One Book and Expense Distribution as in Figures 1 and 2. Your opening entry would set up the four "balance" columns, Cash, Bank, Accounts Receivable, and Accounts Payable. To determine your starting balance for each of these four categories you would:

- a) count the actual cash on hand
- b) prepare a Bank Reconciliation (Instructions are outlined below).
- c) total the Accounts Receivable (This may be a separate ledger or a file of duplicate charge sales slips.)
- d) total the Accounts Payable. (This may also be a separate ledger or file of unpaid supplier invoices.)

The entries recorded for the existing business in Figure 4 reflect each of these four totals.

It is necessary to prepare a bank reconciliation because the bank balance as shown on your bank statement may be different than the bank balance you would use to start up the One Book. You may, for example, have issued cheques which have not yet been presented to your bank. Or you may have made deposits to your account which have not yet been recorded by the bank. At the same time, you may not have recorded bank charges and interest or other debits and credits made to your account in the One Book which nonetheless appear on your bank statement.

To find the bank balance for the One Book use the following calculation:

Balance as per bank statement	\$ _____
Less: Outstanding cheques	\$ _____
Plus: Outstanding deposits	\$ _____
Equals: Balance as per One Book	\$ _____



STEP 5

KEEPING ADDITIONAL RECORDS

As your business expands, a One Book System without supporting records and ledgers may no longer be feasible. Depending on the volume of your business, you may have to keep a separate Accounts Receivable Ledger with one page or card for each customer. You would need to keep a record of amounts charged, amounts received, and the balance owing by the customer, and file these pages alphabetically in a book binder or tray.

You may be able to eliminate this ledger if you keep duplicates of charge sales slips. Simply keep a file of these slips organized alphabetically. Then, when a customer makes a payment, mark the charge slip "*Paid*" and remove it from the file.

Whether you keep an actual Accounts Receivable Ledger or a file of charge slips, the sum of the amounts owing should always equal the Accounts Receivable - Balance (Column 9) of the One Book. Figure 5 illustrates an example of an Accounts Receivable Ledger Card.

EXAMPLE: ABC MANUFACTURING COMPANY

Figure 5 - Accounts Receivable Ledger Card

ACCOUNT NUMBER:	<u>M-103</u>	BILLING DATE:	<u>8</u>	ACCOUNT LIMIT:	<u>\$2,000</u>
				ACCOUNT CLASS:	<u>B</u>
COMPANY NAME:	<u>Henhawk Construction</u>	PHONE:	<u>268-0244</u>		
ADDRESS:	<u>119 Planet Road</u>	ACCOUNT PAYABLE CONTACT:			
CITY:	<u>Anytown</u>		<u>Dan Thundercloud (Ex. 42)</u>		
RESTRICTIONS	1. <u>If order above acct. limit check with Shirley Bear</u>				
	2. _____				
SPECIAL CIRCUMSTANCES:	<u>Do not deliver Wednesday PM or Saturday</u>				

DATE	PAYMENT \$	PURCHASE \$	INVOICE NO.	QUANTITY	DESCRIPTION	BALANCE
1-4-90		420.00	08271	300	Patio Blocks (misc. sizes)	420.00
14-4-90	420.00					-
5-6-90		614.00	80419	2000	Wall Blocks (MDL) steps)	614.00
5-6-90		210.00	08420	150	Patio Block (misc. sizes)	824.00
17-6-90	824.00					-

A similar Accounts Payable Ledger may be required if you do a great deal of purchasing from a limited number of suppliers. Again, an alternative could be to keep outstanding invoices filed by supplier in an "accordion" file. Then, when you pay an invoice mark it "Paid" and remove it from the file.

Whether you keep an actual Accounts Payable Ledger or a file of unpaid invoices, the sum of the amounts owing should always equal the Accounts Payable - Balance (Column 12) of the One Book. An example of an Accounts Payable Ledger Card is illustrated in Figure 6.

Finally, if you have a large number of employees, you may require separate payroll records. Figure 7a illustrates a Payroll Sheet and Figure 7b, an Individual Employee Record.

PART B FINANCIAL STATEMENTS



THE INCOME STATEMENT

The Income Statement is a summary of business operations for a period, be it monthly, semi-annually, or annually. This section will present two methods of preparing an income statement; for simplicity, we will call them the **Easy Way** and the **More Accurate Way**. The one you choose will depend on how much information you want.

The Easy Way

Examine the Income Statement prepared by the ABC Manufacturing Company in Figure 8. Notice that this is a summary of business operations for the month of March and year-to-date. You subtract the cost of goods sold and expenses from revenue for the same period of time to figure out the net profit or income earned. Essentially, what you really have is something like this:

Sales
Less: Cost of Goods Sold
Equals: Gross Margin
Less: Total Expenses
Equals: Net Income Before Income Taxes

Note that the information on the Income Statement comes from the One Book (Figure 1) and the Expense Distribution (Figure 2). The numbers on the left-hand side of the Income Statement correspond to the column numbers in both the One Book and the Expense Distribution. Most of the information you need will come from these sources.

You will need to prepare estimates for "*special treatment*" items in order to complete your Income Statement.

Cost of Goods Sold

Before you calculate the gross margin for the period you must know the cost values of the inventory (raw-materials, goods in process, and finished inventory) at the beginning and at the end of the period. Use the worksheet in Figure 9 to calculate approximate monthly inventory values at cost. Your calculations will not be completely accurate but they will certainly be worthwhile if you do not intend to take an inventory count every month.

Depreciation

You need to consider non-cash expenditures such as depreciation to reflect the results of all business operations. Here is a straight-forward method of calculating the amount of depreciation expense :

- * List the undepreciated value of all your fixed assets. This list might include buildings, fixtures, equipment, and delivery trucks, but will not include land.
- * Decide how long each asset is likely to last before you have to trade it in or scrap it.
- * Divide the number of years it will last into the amount to be depreciated to find the annual depreciation.
- * Total all depreciation values
- * Divide by twelve to find the monthly depreciation charge.
- * Use this amount to enter on the Income Statement as in Figure 8.

Income Tax

Income tax is another special treatment item which varies from business to business and province to province. Depending on your Aboriginal Status, you may not be required to pay income tax. If you are required to pay income tax, you may know the percentage of income tax on "*before tax net profits*" last year, and can use the same percentage this year for your Income Statement. If you do not know, contact a Revenue Canada office in your area.

EXAMPLE: ABC MANUFACTURING COMPANY

Figure 8 - Income Statement

ABC MANUFACTURING COMPANY INCOME STATEMENT MONTH ENDEND <u>March 31, 1990</u>												
COL #		CURRENT MONTH				YEAR TO DATE						
17	Gross Sales					+	120	200	00	354	800	00
18	Less: Returns & Allowance					-	2	500	00	7	800	00
	Equals: Net Sales					=	117	700	00	347	000	00
	Less: Cost of Goods Sold											
	Finished Goods - Beginning Inventory	+	58	400	00							
	Plus: Depreciation	+		400	00							
19 & 21 to 29	Plus: Purchases & Factory Expenses	+	87	250	00							
	Equals: Goods Available for Sale	=	144	050	00							
	Less: Finished Goods - Ending Inventory	-	54	200	00							
	Cost of Good Sold	=				-	89	850	00	265	100	00
	Gross Profit					=	27	850	00	81	900	00
	Less: Operating Expenses											
	Variable Cost											
30	Advertising	+	4	525	00					13	575	00
31	Delivery	+	3	980	00					11	940	00
32	Office Supplies	+		420	00		8	925	00	1	280	00
	Fixed Costs											
33	Owner - Salary	+	3	430	00					8	390	00
34	Administrative Salaries	+	5	100	00					15	300	00
35	Office Employee Benefits	+		700	00					2	100	00
36	Telephone	+		220	00						680	00
37	Interest	+		450	00					1	350	00
38	Dues and Licences	+		400	00					1	200	00
39	Legal and Audit	+		650	00					1	950	00
40	Other	+		825	00		11	775	00	2	475	00
	Operating Expenses	=				-	20	700	00	60	200	00
	Income from Operations					=	7	150	00	21	700	00
18	Plus: Other Income					+		237	00		690	00
	Equals: Net Income Before Taxes					=	7	387	00	22	390	00
	Less: Income Taxes					-	2	500	00	7	500	00
	Equals: Net Income					=	4	887	00	14	890	00

EXAMPLE: ABC MANUFACTURING COMPANY

Figure 9 - Monthly Inventory Value

Year - 1990		\$	%
JANUARY 1ST	INVENTORY AT COST	\$ 57,000.00	
PLUS JAN.	PURCHASES AT COST (Col. 19)	60,340.00	
PLUS JAN.	FACTORY EXPENSES (Cols. 21-29)	25,800.00	
LESS JAN.	NET SALES AT COST	87,140.00	
FEBRUARY 1ST	INVENTORY AT COST	58,000.00	78%
PLUS FEB.	PURCHASES AT COST (Col. 19)	62,130.00	
PLUS FEB.	FACTORY EXPENSES (Cols. 21-29)	25,400.00	
LESS FEB.	NET SALES AT COST	87,130.00	78%
MARCH 1ST	INVENTORY AT COST	58,400.00	
PLUS MAR.	PURCHASES AT COST (Col. 19)	59,330.00	
PLUS MAR.	PURCHASES AT COST (Col. 19)	27,920.00	
LESS MAR.	NET SALES AT COST	89,450.00	78%
APRIL 1ST.	INVENTORY AT COST	54,200.00	
PLUS APR.	PURCHASES AT COST (Col. 19)		
PLUS APR.	PURCHASES AT COST (Col. 21-19)		
LESS APR.	NET SALES AT COST		
	ETC.		

NOTE: The January 1st **Finished Goods Inventory** value of \$57,000 is the actual cost value as determined by the year-end count. The cost of a unit of finished goods inventory includes the cost of direct material, direct labour, and factory overhead (e.g. factory employee benefits, repair and maintenance, factory supplies expense, utilities, factory supervisory salaries, rent, property and business tax, insurance expense, and depreciation - See Figure 11, Cost Estimate Sheet for method of calculating unit cost for inventory valuation).

To the January 1st finished goods inventory value of \$57,000 add the January purchases of \$60,340 at cost, which is column 19 from the One Book for January. Then add Factory Expenses of \$25,800 for January, which is the total of expenses from columns 21 to 29 inclusive from the One Book Expense Distribution, as well as the monthly depreciation expense. Then subtract January Net Sales at cost calculated as follows:

Gross Sales (Col. 17)
 Less: Sales Returns (Col. 18)
 Equals: Net Sales (at retail)
 Times: Approximate Cost of Goods Sold Percentage of sales (e.g. 76% assumed on worksheet)*
 Equals: Net Sales (at cost)

* The 76% is the same percentage used to estimate the cost component of one unit of finished goods inventory.

The result is finished goods ending inventory (\$56,000) at cost. Simply follow the procedure each month so that you have a "running tally" of inventory valued at cost.

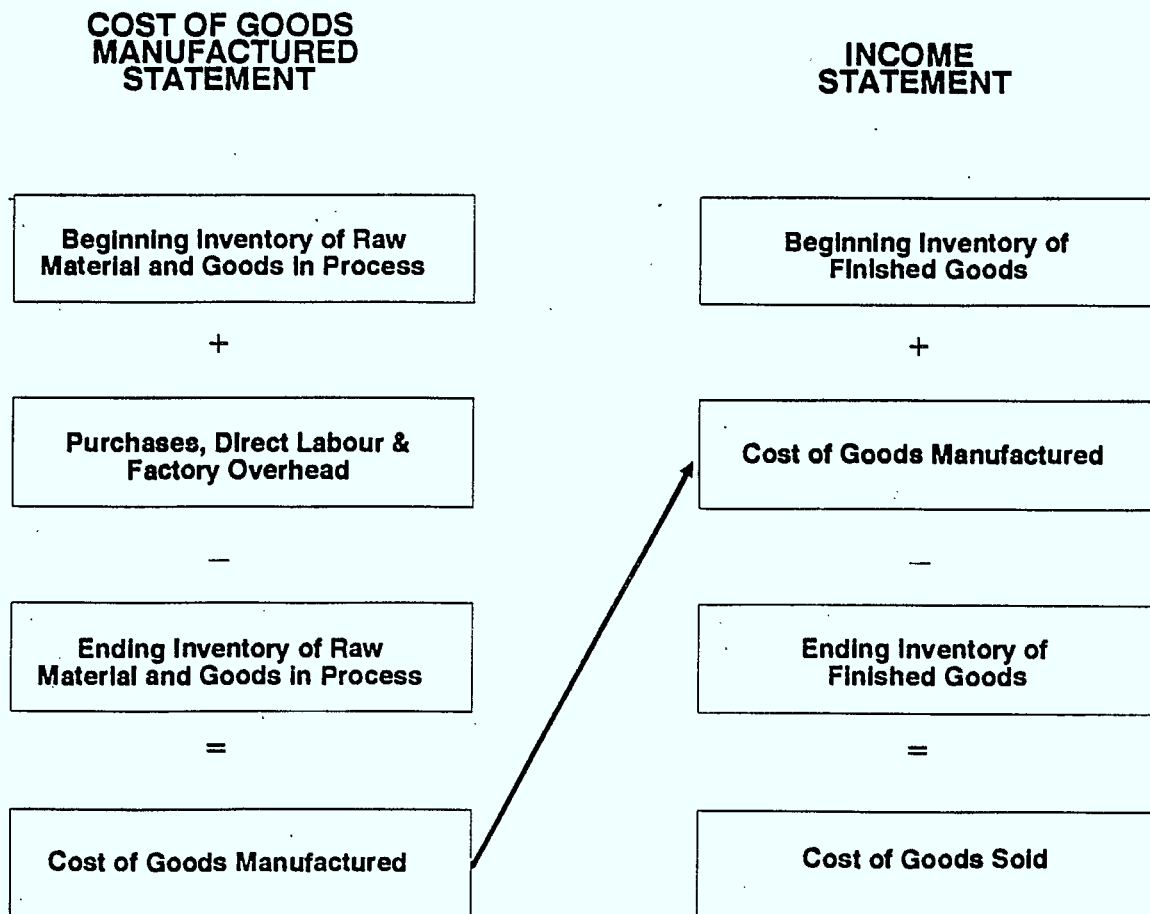
The More Accurate Way

As in Figure 8 (Income Statement for the **Easy Way**), the Income Statement in Figure 10A is identical in concept:

Sales
Less: Cost of Goods Sold
Equals: Gross Margin
Less: Total Expenses

What is different is the introduction of Cost of Goods Manufactured, necessary now because three levels of inventory are recognized in a manufacturing firm; **raw material, goods in process, and finished goods inventory.**

The preparation of the Income Statement and the Cost of Goods Manufactured Statement must be seen in relation to one another as follows:



Again, the information on the Income Statement shown in Figure 10A comes primarily from the One Book and the Expense Distribution. The numbers on the left-hand side of the Income Statement and Cost of Goods Manufactured Statement correspond to the Column numbers on both the One Book and the Expense Distribution. Most of the information you need will come from these sources.

Prepare estimates for "special treatment" items covered on page 32 and complete the preparation of the Income Statement and Cost of Goods Manufactured Statement.

Inventory

Three classes of inventory are usually found in a manufacturing business:

Raw Materials inventory represents the unused portion of the raw materials purchased. The amount is determined at the end of a period by taking a physical count of the raw materials which have not yet been placed into production. This unit cost is extended to a cost dollar.

Goods in Process inventory consists of the partially completed goods on hand in the factory at the end of the period and is determined by taking a physical count. The costing of these partially manufactured goods is accomplished by estimating the costs of the raw materials, direct labour and factory overhead associated with these units.

Finished Goods inventory includes the finished goods on hand and awaiting sale to customers as of the end of the period. The costs of these finished units are composed of the cost of raw materials, direct labour, and factory overhead. Figure 11 illustrates a Cost Estimate Sheet that will enable you to prepare unit costs for properly evaluating inventory values.

Depreciation

You need to consider non-cash expenditures such as depreciation to reflect the results of all business operations. Here is a straight-forward method of calculating the amount of depreciation expense:

- * List the undepreciated value of all your fixed assets. This list might include buildings, fixtures, equipment, and delivery trucks, but will not include land.
- * Decide how long each asset is likely to last before you have to trade it in or scrap it.
- * Divide the number of years it will last into the amount to be depreciated to find the annual depreciation.
- * Total all depreciation values
- * Divide by twelve to find the monthly depreciation charge.

* Use this amount to enter on the Income Statement as in Figure 10A.

Income Tax

Income tax is another special treatment item which varies from business to business and province to province. Depending on your Aboriginal Status, you may not be required to pay income tax. If you are required to pay income tax, you may know the percentage of income tax on "*before tax net profits*" last year, and can use the same percentage this year for your Income Statement. If you do not know, contact a Revenue Canada office in your area.

EXAMPLE: ABC MANUFACTURING COMPANY

Figure 10A - Income Statement

ABC MANUFACTURING COMPANY INCOME STATEMENT MONTH ENDEND <u>March 31, 1990</u>																	
COL #		CURRENT MONTH						YEAR TO DATE									
17	Gross Sales							+	1	010	000	00		3	200	000	00
18	Less: Returns & Allowance							-		10	000	00			29	000	00
	Equals: Net Sales							=	1	000	000	00		3	171	000	00
	Less: Cost of Goods Sold																
	Finished Goods - Beginning Inventory	+		110	000	00											
	Plus: Cost of Goods Manufactured*	+		860	000	00											
	Equals: Cost of Goods Available for Sale	=		970	000	00											
	Less: Finished Goods - Ending Inventory	-		100	000	00											
	Cost of Good Sold	=						-		870	000	00		2	805	000	00
	Gross Margin	=						=		130	000	00			560	000	00
	Less: Operating Expenses																
	Variable Cost																
30	Advertising	+		10	000	00									25	000	00
31	Delivery	+		15	000	00									41	000	00
32	Office Supplies	+		5	000	00				30	000	00			16	500	00
	Fixed Costs																
33	Owner - Salary	+		25	000	00									65	000	00
34	Administrative Salaries	+		35	000	00									100	000	00
35	Office Employee Benefits	+		5	000	00									10	000	00
36	Telephone	+		1	000	00									4	000	00
37	Interest	+		10	000	00									31	000	00
38	Dues and Licences	+		1	000	00									2	000	00
39	Legal and Audit	+		2	000	00									2	000	00
40	Other	+		1	000	00				80	000	00			4	500	00
	Operating Expenses	=						-		110	000	00			307	000	00
	Income from Operations	=						=		20	000	00			259	000	00
16	Plus: Other Income	+						+		10	000	00			30	000	00
	Equals: Net Income Before Taxes	=						=		30	000	00			299	000	00
	Less: Income Taxes	-						-		10	000	00			88	700	00
	Equals: Net Income	=						=		20	000	00			202	300	00

NOTE: Figures in this example will not agree to One Book Entries.
*Entered from Cost of Goods Manufactured Statement, Figure 10B.

EXAMPLE: ABC MANUFACTURING COMPANY

Figure 10B - Cost of Goods Manufactured Statement

ABC MANUFACTURING COMPANY STATEMENT OF COST OF GOODS MANUFACTURED MONTH ENDEND <u>March 31, 1990</u>						
#COL.		CURRENT MONTH			YEAR TO DATE	
	Goods in Process - Beginning Inventory					+ 50 000 00
	Raw Material					
	Beginning Inventory	+	30 000	00		
19	Plus: Purchases	+	450 000	00		
	Raw Material Available for Use	=	480 000	00		
	Less: Ending Inventory	-	20 000	00		
	Cost of Raw Material Used	=			+ 480 000	00
21	Direct Labour				+ 300 000	00
	Factory Overhead					
	Variable Costs					
22	Factory Employee Benefits	+	15 000	00		
23	Factory Supplies Expense	+	5 000	00		
24	Utilities	+	8 000	00		
25	Repair and Maintenance	+	12 000	00		
	Fixed Costs					
26	Factory Supervisory Salaries	+	20 000	00		
27	Property and Business Taxes	+	6 000	00		
28	Insurance Expense	+	3 000	00		
29	Rent	+	13 000	00		
	Depreciation	+	8 000	00		
	Factory Overhead	=			+ 90 000	00
	Total Manufacturing Costs	=			+ 850 000	00
	Total Cost of Goods in Process During the Period				= 900 000	00
	Less: Goods in Process - Ending Inventory				- 40 000	00
	Cost of Goods Manufactured*				= 860 000	00

NOTE: Figures in this example will not agree to One Book Entries.

* Entered on Income Statement, Figure 10A.

Figure 11 - Cost Estimate Sheet

PRODUCT: The ABC Thingamajig
 QUANTITY: 50 Units
 DATES OF RUN: Jan. 1 - Mar. 31

DIRECT COSTS

Material Cost:

.Raw Material	+	1	000	000	00
.Materials consumed during tooling and set-ups	+		240	000	00
.Purchased Components	+		200	000	00

TOTAL MATERIAL COST

= + 1 440 000 00

Labour Cost

.Direct Labour	+		900	000	00
.Set-Up Time	+		2	000	00

.TOTAL LABOUR COST

= + 902 000 00

TOTAL DIRECT COSTS

= + 2 342 000 00

INDIRECT COSTS

Variable

.Variable Factory Overhead	+		120	000	00
.Variable Operating Expense	+		90	000	00

.TOTAL VARIABLE COSTS

= + 210 000 00

Total Specific Cost

= 2 552 000 00

Fixed:

.Fixed Factory Overhead	+		150	000	00
.Fixed Operating Expense	+		240	000	00

.TOTAL FIXED COST

= + 390 000 00

TOTAL INDIRECT COSTS

= + 600 000 00

TOTAL COST

= 2 942 000 00

UNIT COST

TOTAL COST ÷ Units = Total Cost/Unit

\$2,942,000 ÷ 50 = \$58,840

THE BALANCE SHEET

The Balance Sheet is a statement of the financial position of a business as of the end of a given period. As you will note in Figure 12, the Balance Sheet consists of three sections, ASSETS, LIABILITIES, AND OWNER'S EQUITY. All balance sheets are prepared on the basis of the following relationship:

$$\text{ASSETS} = \text{LIABILITIES} + \text{OWNER'S EQUITY}$$

Follow the steps outlined below to complete the Balance Sheet.

STEP 1 "ONE BOOK" BALANCES

As you can see in Figure 12 the amounts of CASH, BANK, ACCOUNTS RECEIVABLE, and ACCOUNTS PAYABLE are taken directly from the "One Book" balances without adjustment.

STEP 2 "INCOME STATEMENT" ITEMS

Similarly, the INVENTORY and NET INCOME amounts are taken directly from the Income Statement for March, as shown in Figure 12.

STEP 3 BALANCE SHEET ADJUSTMENT FOR "FIXED ASSETS"

The value of fixed assets is the original cost less the accumulated depreciation. You can calculate the amount at March 31 by using the fixed asset value on the prior period's Balance Sheet, adjusting it by any new additions or sales of fixed assets from Column 13 of the "One Book" for March, and finally by subtracting the amount of depreciation for March. For the ABC Manufacturing Company, it looks like this:

FIXED ASSETS	
(Balance sheet Feb. 28, not shown)	\$115,800
Plus: Fixed Asset additions (Col. 13 of <i>One Book</i>)*	---
Less: Fixed Asset reductions (Col. 13 of <i>One Book</i>)*	---
Less: Depreciation for March	400
EQUALS: Fixed Assets (March 31)	<u>\$115,400</u>

*NOTE: the amount will be a fixed asset reduction if it is bracketed; otherwise, it is an addition.

You will notice that a space for land, building, and equipment has been provided on the Balance Sheet should you require this amount of detail. Remember, though, that land is never depreciated, only the buildings and equipment.

STEP 4 BALANCE SHEET ADJUSTMENT FOR LIABILITIES

Step 1 has already dealt with Accounts Payable, leaving only "*other*" current liabilities and long-term liabilities on the Balance Sheet. The treatment is very similar to that of fixed assets in Step 3, as the following example shows:

Total Liabilities less Accounts Payable (Balance Sheet Feb. 28, not shown)	\$132,700
Plus: Additions to Liabilities (Col. 14 of " <i>One Book</i> " for March)*	---
Less: Reductions to Liabilities (Col. 14 of " <i>One Book</i> " for March)*	---
Equals: Total Liabilities Less Accounts Payable (Balance Sheet March 31)	<u>\$132,700</u>

*NOTE: The amount will be a liability reduction if it is bracketed; otherwise, it is an addition.

Once again, you will notice that a space is provided for both "*current*" and "*long-term*" liabilities on the Balance Sheet, should you require this amount of detail. "*Current*" liabilities would include such items as bank loans and notes that must be repaid within a year. "*Long-term*" liabilities include mortgages and term loans that will be repaid over a longer period.

STEP 5 BALANCE SHEET ADJUSTMENT FOR OWNER'S EQUITY

Consider each item on the Balance Sheet in turn:

a) Owner's Capital

This term is used to indicate the amount of the owner's initial investment plus any more-or-less permanent investments in the business made by the owner at later dates. If there are no subsequent investments, the amount of Owner's Capital will remain constant. For the ABC Manufacturing Company it looks like this:

Owner's Capital (Balance Sheet Feb. 28)	\$27,013
Plus: Additions (Column 15 of One Book)*	--
Less: Withdrawals (Column 15 of One Book)*	—
Equals: Owner's Capital (Balance Sheet March 3)	<u>\$27,013</u>

*NOTE: The amount will be an owner's capital withdrawal if it is bracketed; otherwise, it is an addition.

b) Retained Earnings

Business operations which result in profit or loss affect the amount of Owner's Equity. Likewise, if the owner withdraws part or all of the earnings, this action will affect the amount of equity in the business. In short, earnings which are retained in the business (not taken out by the owner) increase the owner's equity. It is desirable to show such changes separately from the original investment.

In the case of the ABC MANUFACTURING COMPANY, the retained earnings at February 28 were \$37,800.

c) Present Period Income

You will have already found this amount in Step 2 with the Income Statement figure for Net Income.

If you have followed these steps closely, you will indeed find that,

$$\text{ASSETS} = \text{LIABILITIES} + \text{OWNER'S EQUITY}$$

EXAMPLE: ABC MANUFACTURING COMPANY

Figure 12 - Balance Sheet

ABC MANUFACTURING COMPANY
Balance Sheet
As Of March 31, 1990

ASSETS					
CURRENT ASSETS					
Cash	+	8	800	00	
Bank	+	3	700	00	
Accounts Receivable	+	71	100	00	
Inventory	+	54	200	00	
TOTAL CURRENT ASSETS	=	137	800	00	+
FIXED ASSETS:					
Land	+	10	900	00	
Building (Net of Accumulated Depreciation)	+	41	500	00	
Equipment (Net of Accumulated Depreciation)	+	63	000	00	
TOTAL FIXED ASSETS	=	115	400	00	+
TOTAL ASSETS		253	200	00	=
LIABILITIES AND OWNER'S EQUITY					
CURRENT LIABILITIES					
Accounts Payable	+	50	800	00	
Other	+	60	900	00	
TOTAL CURRENT LIABILITIES		111	700	00	
LONG TERM LIABILITIES	+	71	800	00	
TOTAL LIABILITIES	=	183	500	00	
OWNER'S EQUITY					
Owner's Capital	+	27	013	00	
Retained Earnings - At Beginning of Period	+	37	800	00	
ADD: Present Period Net Income	+	4	887	00	
TOTAL OWNER'S EQUITY	=	69	700	00	+
TOTAL LIABILITIES AND OWNER'S EQUITY		253	200	00	=

PART C FINANCIAL ANALYSIS



RATIO ANALYSIS

You may recall in the Introduction of this guide book we spoke of complete and accurate accounting records as the key to sound financial management. The information you record in the One Book System and calculate in your Financial Statements provides you with enough data to monitor both the favourable and unfavourable trends occurring in your business. Ratio Analysis is a very useful tool to help you track your business's performance on a monthly, quarterly, or yearly basis. There are basically three kinds of ratios you can work with, as indicated below in Figure 13.

EXAMPLE: ABC MANUFACTURING COMPANY

Figure 13 Analysis Form For Key Business Ratios

		MONTH							
		YEAR							
A.	WORKING CAPITAL RATIOS								
	A-1. CURRENT RATIO	No.							
	A-2. QUICK RATIO	No.							
B.	PRODUCTIVITY RATIOS								
	B-1. INVENTORY TURNOVER	No. of Times							
	B-2. COLLECTION PERIOD	Days							
	B-3. OPERATING EXPENSES as a % of Sales	%							
C.	PROFITABILITY RATIOS								
	C-1. GROSS PROFIT as a % of Sales	%							
	C-2. NET PROFIT as a % of Sales	%							
	C-3. RETURN ON OWNER'S INVESTMENT	%							

A. Working Capital Ratios

You would use working capital ratios in order to determine whether or not your working capital is sufficient.

- i) **CURRENT RATIO** is the ratio between total Current Assets (including inventory) and Total Current Liabilities. You can take the amounts for both Total Current Assets and Total Current Liabilities directly from the Balance Sheet as calculate as follows:

$$\frac{\text{Total Current Assets}}{\text{Total Current Liabilities}} \quad \times \quad 100$$

A Current Ratio of 150% is usually considered satisfactory though this naturally varies by industry. A trend towards a lower ratio can serve to warn you that you may begin having problems paying your current bills.

EXAMPLE: ABC MANUFACTURING COMPANY

$$\frac{\$137,800}{\$111,700} \quad \times \quad 100 \quad = \quad 123\%$$

- ii) **QUICK RATIO** is the ratio between Current Assets excluding inventory and Total Current Liabilities. Again, you would take the amounts from the balance sheets. But note this time, you would need to deduct inventory from your Total Current Assets to make the following calculation:

$$\frac{\text{Current Assets excluding inventory}}{\text{Total Current Liabilities}} \quad \times \quad 100$$

The quick ratio focuses on immediate liquidity. If this ratio falls much below 100% you could have liquidity problems within weeks. The example below signals a problem for the ABC Manufacturing Company. Notice that the Current Ratio by itself didn't identify this problem.

EXAMPLE: ABC MANUFACTURING COMPANY

$$\frac{\$137,800 - \$54,200}{\$111,700} \quad \times \quad 100 \quad = \quad 75\%$$

B. Productivity Ratios

In order to evaluate the productivity of your wholesale business, you need to analyze trends in three key areas: Inventory Turnover; Collection Period; and Operating Expense. A downward trend in any one of these areas could adversely affect the overall productivity of your business.

- i) **INVENTORY TURNOVER** is the number of times inventory is turned over or replaced in a year. Taking the information from your Income Statement you would calculate as follows:

$$\begin{array}{rcl} \text{Annual Cost of Goods Sold} & \div & \text{Average Inventory} \\ \text{OR} & & \\ \text{Monthly Cost of Goods Sold x 12} & \div & \frac{\text{Starting Inv} + \text{Ending Inv}}{2} \end{array}$$

Turnover naturally varies widely from industry to industry. The trend, however, is the key element in assessing productivity in your business. A high or increasing inventory turnover rate is commonly considered favourable. However, you have to read behind the numbers on this one. An inventory turnover rate that's too high may mean that you're keeping inventory too low. "Out of Stocks" may result. But you probably won't need a ratio to alert you when this is happening; so try for improving rates of turnover.

EXAMPLE: ABC MANUFACTURING COMPANY

$$\$89,850 \times 12 \div \frac{\$56,400 + \$54,200}{2} = 19.5$$

- ii) **COLLECTION PERIOD** is the average term of credit extended in total days. If this is 30, for example, the average time it takes you to collect an account receivable is 30 days. You would find your Accounts Receivable figure on your Balance Sheet and your Net Sales figure from your current month's Income Statement and calculate as follows:

$$\frac{\text{Accounts Receivable}}{\text{Net Sales}^*} \times 12 \times 365 \text{ Days}$$

*monthly

While the collection period varies for different industries, a period of less than 30 days is realistic and preferable. If discounts are offered for prompt payment, you would expect the collection period to be shortened, since most customers would pay quickly in order to get the discount. Of course, the older an account receivable becomes, the greater the likelihood that it might not be collected in full.

EXAMPLE: ABC MANUFACTURING COMPANY

$$\frac{\$71,100}{\$117,700 \times 12} \times 365 = 18.4 \text{ days}$$

- iii) **OPERATING EXPENSE** as a percentage of Sales is the relationship of operating cost to revenue. You would find figures for your Operating Expenses and Net Sales on your Income Statement for the current month and calculate as follows:

$$\frac{\text{Operating Expenses}}{\text{Net Sales}} \times 100$$

Watch this ratio carefully. Even in a good year, if you lose control over expenses, your profit can be eliminated. If a bad trend begins to develop, calculate the same ratio for each operating expense and identify the specific problem.

Remember, the Operating Expense ratio must remain lower than the Gross Margin ratio in order to make a profit.

EXAMPLE: ABC MANUFACTURING COMPANY

$$\frac{\$20,700}{\$117,700} \times 100 = 17.6\%$$

C. PROFITABILITY RATIOS

In order to determine whether or not your business is sufficiently profitable, you need to analyze your Gross Margin, Net Profit and Return on Owner's Investment.

- i) **GROSS MARGIN** as a percentage of Sales is the Gross Profit on sales expressed as a percentage of Net Sales. Taking the figures for the Gross Margin and Net Sales from your Income Statement for the current month, you would calculate this ratio as follows:

$$\frac{\text{Gross Margin}}{\text{Net Sales}} \times 100$$

The Gross Margin Ratio may tell you a great deal. If it's high or increasing, it may indicate that you're purchasing at low prices, selling at high prices, or both. A low or decreasing gross margin ratio, on the other hand, may indicate that you're taking an inadequate mark-up or paying too much for the inventory. Or it may be what you intend: a deliberate policy of selling at low prices to achieve larger sales volumes. To be profitable, such a policy must result in large sales volumes and be accompanied by low operating costs.

If you're using the shorthand method to determine inventory values at cost rather than taking actual counts, you can't monitor this ratio month by month. Recall the method we outlined on the worksheet in Figure 11. To work out the inventory value you're really assuming your gross margin. This is why it's wise to take an inventory count as often as you can.

EXAMPLE: ABC MANUFACTURING COMPANY

$$\frac{\$27,850}{\$117,700} \times 100 = 23.7\%$$

- ii) **NET PROFIT** as a percentage of Sales expresses the portion of profit in every sales dollar. You would find figures for both Net Profit (after Taxes, if applicable) and Net Sales on your Income Statement for the current month to calculate this ratio:

$$\frac{\text{Net Profit after Taxes}}{\text{Net Sales}} \times 100$$

Net profit is influenced directly by changes in Gross Margin and Operating Expenses. So if the ratio is low or starts dropping, you should refer to these ratios to find the problem.

The Net Profit Ratio will only be useful to you if the salary you take out of the business represents a fair salary or management fee. Otherwise, Net Profit should be adjusted before the ratio is calculated.

EXAMPLE: ABC MANUFACTURING COMPANY

$$\frac{\$4,887}{\$117,700} \times 100 = 4.2\%$$

- ii) **RETURN ON OWNER'S INVESTMENT** is the measure of the earning ability of the capital which you have invested in the business. To calculate this ratio, you should use the amount of Net Profit (After Taxes, if applicable) from your annual Income Statement, and Total Owner's Equity from Balance Sheets prepared at the beginning and the end of the year.

$$\frac{\text{Annual Net Profit after Taxes}}{\text{Average Total Owner's Equity}} \times 100$$

Although there is nothing wrong with reviewing this ratio monthly, it makes more sense to review it at the end of the year since the return on most other forms of investment are calculated on an annual basis. This ratio provides an all-encompassing measure of the health of your business. It tells you the rate of return on your investment in the business.

Therefore, one of the first things you should do is compare this percentage to the yield on other forms of investment. If you were to invest the same amount of money in a savings certificate, for example, would the accrued interest be higher or lower than the return on your business investment (which you have just calculated with this ratio)? If you know the exact rate of return on your business investment, you will be in a good position to make plans for the future in relation to the feasibility of considering other forms of investment. At the same time, the Return on Owner's Investment Ratio could help you to focus on possible ways of increasing the yield on your present investment.

EXAMPLE: ABC MANUFACTURING COMPANY

Since annual data is not available, we will have to illustrate this ratio using the data for the current month only. Net Profit after Tax was \$4,887 and Total Owner's Equity was \$69,700 at the end of the month and \$64,813 (i.e. \$69,700 - \$4,887) at the beginning of the month. Thus, Average Total Owner's Equity was \$67,256. Therefore, Return on Owner's Investment was

$$\frac{\$4,887}{\$67,256} \times 100 = 7.3\%$$

Bear in mind that the result, in this example, is for a month rather than a year. If this same rate is earned throughout the year, the annual return on owner's investment would be 87.6% (but this is a very questionable assumption).

COMPARATIVE FINANCIAL DATA FOR THE MANUFACTURING INDUSTRY

Comparing the ratios for your business with the ratios of other businesses in the manufacturing industry is a useful exercise to assess how your business is faring, but note that it can serve only as a general guide. The ratios are based on broad group averages which include a great variety and range of individual businesses. As well, the data in Table 3 is prepared from national statistics and therefore does not reflect the ratio norms for specific regions of Canada.

EXAMPLE: ABC MANUFACTURING COMPANY

ABC Manufacturing Company is a manufacturer of concrete ready-mix.

	ABC Manufacturing Company Ratios	Industry Ratio Taken from Table 2 Comparative Financial Data
A. WORKING CAPITAL RATIOS		
A-1 Current Ratio	123%	111%
A-2 Quick Ratio	75%	n/a
B. PRODUCTIVITY RATIOS		
B-1 Inventory Turnover	19.5 times	10.9 times
B-2 Collection Period	18.4 days	56 days
B-3 Operating Expense as % of sales)	17.6%	n/a
C. PROFITABILITY RATIOS		
C-1 Gross Margin (as % of sales)	23.7%	19.7%
C-2 Net Profit (as % of sales)	4.2%	5.08%
C-3 Return on Owner's Investment	87.6%	23.24%

While conclusions are difficult to draw, the generally favourable comparisons are useful indicators of adequate performance.

TABLE 3 COMPARATIVE FINANCIAL DATA

LINE OF BUSINESS (and number of concerns reporting)	Cost of Goods Sold	Gross Margin	Current Assets to Current Debt	Profits on Sales	Profits on Tangible Net Worth	Sales to Tangible Net Worth	Collection Period	Sales to Inventory	Fixed Assets to Tangible Net Worth	Current Debt to Tangible Net Worth	Total Debt to Tangible Net Worth
	Per Cent	Per Cent	Times	Per Cent	Per Cent	Times	Days	Times	Per Cent	Per Cent	Per Cent
MANUFACTURERS (26,493)	76.4	23.6	1.56	5.44	16.24	2.99	44	5.4	70.9	73.9	124.1
Agriculture Implements (99)	83.1	16.9	1.58	3.92	16.29	4.16	31	3.9	33.2	107.6	129.1
Aircraft & Parts (99)	74.2	25.8	1.40	1.77	5.71	3.22	75	2.1	45.4	169.1	221.1
Appliances, Major (33)	81.3	18.7	1.37	3.47	15.72	4.53	55	3.3	38.7	156.8	181.1
Appliances, Small (59)	81.5	38.5	2.00	5.98	19.92	3.33	77	3.8	32.3	84.8	132.1
Bakery Products (676)	73.0	27.0	1.03	5.47	21.20	3.87	24	13.9	57.6	84.0	141.1
Batteries (17)	78.8	21.2	1.72	2.15	8.05	3.75	74	4.0	57.5	101.2	141.1
Boiler & Plate (65)	82.3	17.7	1.26	3.66	14.95	4.06	73	3.7	46.5	178.4	197.1
Breweries (24)	52.1	47.9	1.34	8.33	16.09	2.54	28	6.3	74.0	63.7	139.1
Brooms, Brushes & Mops (37)	65.9	34.1	1.84	3.24	10.44	3.23	54	3.2	33.0	101.1	114.1
Cement (31)	69.2	30.8	1.41	10.30	9.40	0.91	51	8.0	76.1	28.9	91.1
Chemicals, Industrial (157)	72.4	27.6	1.57	10.55	20.66	1.96	49	5.9	99.4	56.7	129.1
Chemicals, Other (324)	71.5	28.5	1.94	7.84	20.69	2.64	52	5.6	64.8	58.3	94.1
Clay Products (109)	69.7	30.3	1.70	5.88	14.86	2.53	61	4.4	69.1	66.5	124.1
Clothing, Men's (558)	79.0	21.0	1.52	2.63	13.32	5.06	66	4.2	26.7	151.4	177.1
Clothing, Women's (808)	78.0	22.0	1.51	2.73	17.16	6.29	51	6.8	25.6	146.0	166.1
Clothing, Other (322)	78.9	21.1	1.60	2.95	16.67	5.65	51	5.4	22.7	137.9	181.1
Coffins & Caskets (35)	74.2	25.8	1.69	3.81	10.47	2.74	67	3.4	75.6	79.1	122.1
Commercial Ptg. (2,048)	69.5	30.5	1.57	7.06	22.66	3.24	64	7.8	60.6	77.6	127.1
Communication Equipment (217)	78.5	23.5	1.96	4.86	13.16	2.71	38	3.5	31.9	73.7	102.1
Concrete (417)	73.6	26.4	1.30	5.03	18.36	3.65	70	8.2	69.9	106.7	159.1
*Concrete Ready-Mix (281)	80.3	19.7	1.11	5.08	23.24	4.56	56	10.9	115.2	128.1	220.1
Cotton & Woolen Mills (79)	77.6	22.4	1.78	7.43	19.56	2.63	56	4.2	59.3	63.2	110.1
Dairy Products (479)	82.8	17.2	1.26	2.01	13.60	6.76	24	12.0	69.6	118.6	154.1
Distilleries (30)	49.9	50.1	2.33	18.02	20.83	1.30	48	1.3	61.0	55.6	127.1
Elec. Equip., Industrial (177)	78.8	21.2	1.81	3.42	10.44	3.05	71	3.6	47.6	94.9	119.1
Elec. Equip., Miscellaneous (309)	75.8	24.2	1.66	6.24	21.19	3.40	52	4.1	50.6	63.5	123.1
Fertilizers (37)	74.2	25.8	1.20	8.36	46.81	5.58	84	7.7	180.5	193.2	327.1
Fish Products (250)	82.0	18.0	1.35	2.45	10.31	4.20	36	4.4	106.7	123.7	217.1
Foundation Garments (28)	71.6	28.2	1.75	4.27	11.48	2.69	69	4.5	26.4	71.0	94.1
Fruit & Veg. Cannery (192)	75.3	24.7	1.59	4.60	16.22	3.52	25	3.7	55.0	69.0	114.1
Fur Goods (188)	84.7	15.3	1.52	2.87	16.67	5.82	54	3.5	5.6	212.8	233.1
Furniture, Hdbld. (930)	77.8	22.2	1.48	3.29	15.00	4.56	63	5.1	50.4	127.9	172.1
Furniture, Office (61)	75.9	24.1	1.54	5.27	24.22	4.60	63	5.2	55.7	118.7	161.1
Furniture, Other (275)	77.4	22.6	1.42	2.92	11.58	3.97	61	5.2	39.0	115.0	154.1
Glass Products (115)	79.6	20.4	1.86	5.01	11.26	2.24	46	4.6	61.7	46.4	106.1

TABLE 3 CONT'D

LINE OF BUSINESS (and number of concerns reporting)	Cost of Goods Sold	Gross Margin	Current Assets to Current Debt	Profits on Sales	Profits on Tangible Net Worth	Sales to Tangible Net Worth	Collection Period	Sales to Inventory	Fixed Assets to Tangible Net Worth	Current Debt to Tangible Net Worth	Total Debt to Tangible Net Worth
	Per Cent	Per Cent	Times	Per Cent	Per Cent	Times	Days	Times	Per Cent	Per Cent	Per Cent
Grain Mills (450)	85.8	14.4	1.38	2.85	14.77	5.58	40	8.5	59.5	108.9	142.3
Hdwe. & Tools (592)	70.7	29.3	1.95	8.82	19.43	2.85	52	4.3	52.4	71.1	101.8
Heating Equipment (92)	73.9	26.1	1.49	5.31	15.41	2.90	74	3.8	34.9	102.8	137.5
Hosiery Mills (68)	79.7	20.3	1.78	3.24	11.45	3.53	58	4.4	45.8	87.2	110.8
Iron Foundries (118)	81.4	18.8	1.58	4.73	14.17	3.00	85	4.1	51.4	92.4	144.1
Iron & Steel Mills (153)	75.3	24.7	2.10	8.59	14.57	1.70	50	4.2	101.3	35.5	95.5
Jewelry & Silverware (245)	78.2	23.8	1.82	5.59	24.70	4.42	69	3.8	42.7	139.4	184.2
Knitting Mills, Other (228)	79.7	20.3	1.59	1.98	7.62	3.85	62	4.8	62.8	107.3	155.0
Leather Products (387)	79.5	20.5	1.59	3.22	18.58	5.15	60	4.8	44.8	134.9	190.4
Machine Shops (977)	72.7	27.3	1.40	4.84	21.44	4.42	60	6.4	77.3	128.8	185.1
Machinery, Other (989)	78.8	23.4	1.55	4.41	14.45	3.27	70	3.3	44.1	118.7	149.3
Meat Products (450)	69.7	10.3	1.54	1.42	14.24	10.04	18	17.0	63.1	81.9	114.8
Metal Fabricating (Total) (4,002)	78.8	23.2	1.52	6.13	21.13	3.45	59	4.2	57.1	105.7	148.7
Metal Products, Misc. (605)	78.5	21.5	1.60	5.75	23.84	4.15	58	4.4	48.0	113.8	151.2
Metal Stamping (833)	77.9	22.1	1.72	8.40	20.80	3.22	49	5.3	81.2	71.5	110.1
Motor Veh. & Parts (234)	89.2	10.8	1.68	3.28	18.22	5.59	19	9.8	45.3	73.6	93.3
Non-Met. Min. Prod., Other (218)	74.3	28.7	1.98	7.51	15.24	2.03	51	6.1	62.1	43.0	87.6
Orn. Iron Works (433)	78.8	23.2	1.38	4.83	24.12	5.00	68	5.8	59.3	155.1	215.8
Paint & Varnish (120)	69.8	30.4	1.81	4.71	18.72	3.55	54	4.4	48.8	78.9	113.4
Paper Boxes & Bags (221)	78.8	23.4	1.58	6.98	30.67	4.39	50	6.2	80.9	97.4	187.3
Paper Products, Other (182)	70.9	29.1	1.81	6.85	24.48	2.77	50	5.2	51.8	64.8	87.5
Pet. & Coal Products, Other (18)	53.0	47.0	1.60	8.29	15.38	1.85	41	17.4	32.1	30.8	59.8
Pet. Refineries (36)	68.1	31.9	1.53	8.50	18.83	1.98	63	7.4	70.9	52.9	97.7
Pharmaceuticals (156)	55.9	44.1	1.69	6.60	15.71	2.38	65	3.8	47.2	67.0	84.8
Planning Mills (700)	78.5	23.5	1.38	3.73	17.71	4.75	48	5.8	71.3	129.3	195.2
Publishing Only (558)	48.5	53.5	1.50	4.71	20.03	4.25	67	7.8	38.7	125.3	182.7
Publishing & Printing (476)	3.7	96.3	1.59	9.44	18.75	1.99	51	-	43.9	32.5	67.5
Pulp & Paper Mills (120)	74.4	25.8	1.59	10.52	17.97	1.71	27	6.0	94.4	47.8	121.4
Radio & TV Receivers (25)	77.3	22.7	1.35	0.25	1.19	4.73	64	3.5	40.0	197.8	234.9
Refrigeration, Coml. (39)	81.9	18.1	1.77	3.18	14.73	4.68	78	4.2	43.4	138.5	198.4
Rubber Products (117)	77.7	22.3	1.74	2.15	6.85	3.10	81	4.3	89.4	78.0	148.7
Sawmills (973)	81.8	18.2	1.12	1.88	7.22	3.84	28	5.3	154.8	114.2	221.5
Scientific & Prof. Equipment (334)	67.5	32.5	1.87	4.75	11.18	2.35	62	4.1	51.9	80.3	88.1
Smtg. & Ref., Rolling (214)	80.8	19.4	1.83	8.97	18.98	2.42	31	4.8	103.8	58.8	180.3
Soap & Cleaning Compd. (83)	58.8	41.4	1.84	4.83	13.58	2.81	28	5.8	81.0	55.4	130.3
Soft Drinks (347)	64.7	35.3	1.37	3.18	12.49	3.95	31	9.8	78.2	73.1	113.0
Sporting Goods & Toys (189)	72.5	27.5	1.30	0.80	4.17	5.20	64	2.9	81.5	248.1	319.7
Structural Steel (173)	79.4	20.8	1.32	6.29	19.94	3.17	79	2.3	57.5	185.9	217.0
Textile Products, Other (366)	75.7	24.3	1.48	3.90	18.71	4.29	54	3.9	54.3	129.8	184.8
Textiles, Synthetic (74)	81.5	18.5	1.59	5.14	12.79	2.49	48	5.2	82.7	84.2	114.0

TABLE 3 CONT'D

LINE OF BUSINESS (and number of concerns reporting)	Cost of Goods Sold	Gross Margin	Current Assets to Current Debt	Profits on Sales	Profits on Tangible Net Worth	Sales to Tangible Net Worth	Collection Period	Sales to Inventory	Fixed Assets to Tangible Net Worth	Current Debt to Tangible Net Worth	Total Debt to Tangible Net Worth
	Per Cent	Per Cent	Times	Per Cent	Per Cent	Times	Days	Times	Per Cent	Per Cent	Per Cent
Tobacco Products (21)	80.1	19.9	1.29	4.51	10.01	2.22	15	3.8	17.7	69.8	93.8
Toilet Preparations (81)	54.4	45.6	1.95	4.79	11.26	2.35	53	4.1	30.6	67.5	79.5
Transportation, Misc. (361)	78.1	21.9	1.17	3.47	10.74	3.10	46	2.9	96.5	160.4	235.8
Truck Bodies (273)	82.9	17.1	1.38	4.15	21.89	5.27	53	4.6	54.9	149.6	198.0
Veneer & Plywood (63)	81.6	18.4	1.70	2.80	7.89	2.82	33	6.2	73.1	54.5	136.8
Wineries (25)	84.5	35.5	1.42	4.17	5.44	1.30	52	1.4	65.7	94.2	131.3
Wire Products (232)	74.6	25.4	1.62	8.62	24.87	2.98	47	4.1	62.8	82.0	121.5
Wood Products, Misc. (327)	79.6	20.4	1.07	3.27	12.03	3.66	36	5.8	128.4	116.7	184.0

APPENDIX
Blank Forms

Income Statement (easy way)

INCOME STATEMENT											
MONTH ENDED _____ 19____											
COL. #		CURRENT MONTH						YEAR TO DATE			
17	Gross Sales							+			
18	Less: Returns & Allowance							-			
	Equals: Net Sales							=			
	Less: Cost of Goods Sold										
19	Finished Goods - Beginning Inventory	+									
	Plus: Depreciation	+									
	Plus: Purchases & Factory Expenses	+									
21 to 29	Equals: Goods Available for Sale	=									
	Less: Finished Goods - Ending Inventory	-									
	Cost of Good Sold	=						-			
	Gross Profit							=			
	Less: Operating Expenses										
	Variable Cost										
30	Advertising	+									
31	Delivery	+									
32	Office Supplies	+									
	Fixed Costs										
33	Owner - Salary	+									
34	Administrative Salaries	+									
35	Office Employee Benefits	+									
36	Telephone	+									
37	Interest	+									
38	Dues and Licences	+									
39	Legal and Audit	+									
40	Other	+									
*	Operating Expenses	=						-			
	Income from Operations							=			
16	Plus: Other Income							+			
	Equals: Net Income Before Taxes							=			
	Less: Income Taxes							-			
	Equals: Net Income							=			

Income Statement (more accurate way)

INCOME STATEMENT												
MONTH ENDED _____ 19 ____												
COL #		CURRENT MONTH						YEAR TO DATE				
17	Gross Sales							+				
18	Less: Returns & Allowance							-				
	Equals: Net Sales							=				
	Less: Cost of Goods Sold											
	Finished Goods - Beginning Inventory	+										
	Plus: Cost of Goods Manufactured*	+										
	Equals: Cost of Goods Available for Sale	=										
	Less: Finished Goods - Ending Inventory	-										
	Cost of Good Sold	=						-				
	Gross Margin							=				
	Less: Operating Expenses											
	Variable Cost											
30	Advertising	+										
31	Delivery	+										
32	Office Supplies	+										
	Fixed Costs											
33	Owner - Salary	+										
34	Administrative Salaries	+										
35	Office Employee Benefits	+										
36	Telephone	+										
37	Interest	+										
38	Dues and Licences	+										
39	Legal and Audit	+										
40	Other	+										
	Operating Expenses	=						-				
	Income from Operations							=				
16	Plus: Other Income							+				
	Equals: Net Income Before Taxes							=				
	Less: Income Taxes							-				
	Equals: Net Income							=				

**See accompanying Statement of Cost of Goods Manufactured*

Cost of Goods Manufactured Statement

STATEMENT OF COST OF GOODS MANUFACTURED FOR THE _____ ENDED _____									
COL #		CURRENT MONTH					YEAR TO DATE		
	Goods in Process - Beginning Inventory								+
	Raw Material								
	Beginning Inventory	+							
19	Plus: Purchases	+							
	Raw Material Available for Use	=							
	Less: Ending Inventory	-							
	Cost of Raw Material Used	=				+			
21	Direct Labour							+	
	Factory Overhead								
	Variable Costs								
22	Factory Employee Benefits	+							
23	Factory Supplies Expense	+							
24	Utilities	+							
25	Repair and Maintenance	+							
	Fixed Costs								
26	Factory Supervisory Salaries	+							
27	Property and Business Taxes	+							
28	Insurance Expense	+							
29	Rent	+							
	Depreciation	+							
	Factory Overhead	=				+			
	Total Manufacturing Costs					=		+	
	Total Cost of Goods in Process During the Period							=	
	Less: Goods in Process - Ending Inventory							-	
	Cost of Goods Manufactured*							=	

Balance Sheet

Balance Sheet	
As Of _____	
ASSETS	
CURRENT ASSETS	
Cash	+
Bank	+
Accounts Receivable	+
Inventory	+
Other	+
TOTAL CURRENT ASSETS	= +
FIXED ASSETS:	
Land	+
Building (Net of Accumulated Depreciation)	+
Equipment (Net of Accumulated Depreciation)	+
TOTAL FIXED ASSETS	= +
TOTAL ASSETS	=
LIABILITIES AND OWNER'S EQUITY	
CURRENT LIABILITIES	
Accounts Payable	+
Other	+
TOTAL CURRENT LIABILITIES	
LONG TERM LIABILITIES	+
TOTAL LIABILITIES	=
OWNER'S EQUITY	
Owner's Capital	+
Retained Earnings - At Beginning of Period	+
ADD: Present Period Net Income	+
TOTAL OWNER'S EQUITY	= +
TOTAL LIABILITIES AND OWNER'S EQUITY	=

