C02 Financial Accounting Fundamentals – Incomplete Records by Cathy Sibley Part 2

(Before reading this article, please read part 1 which was published in Velocity August 2012)

Cost Structures & the Trading Account

We have two potential cost structures that we can use:

$$\textbf{Margin} = \frac{\textbf{Gross profit}}{\textbf{Sales}}$$

$$\textbf{Mark up} = \frac{\textbf{Gross profit}}{\textbf{Cost of goods sold}}$$

The trading account is simply represented as:

	$	$
Sales		X
Opening inventory	X	
Purchases	X	
	X	
Less closing inventory	(X)	
Cost of sales		(X)
Gross profit		X

When attempting a question from this area the most important thing to identify is whether the cost structure is based on a margin or a mark up.

Margins are based on **sales**.

Mark ups are based on **costs**.

Whatever the cost structure is based on becomes 100% in the cost structure itself. Lets look at some simple examples. The basic trading account is below:

Margin		**Cost Structure**	**Mark up**		**Cost Structure**
	$	%		$	%
Sales	X		Sales	X	
Cost of sales	(X)		Cost of sales	(X)	
Gross Profit	X			X	

Starting with a margin of 20% which is based on SALES put 100% into the cost structure

Margin		**Cost Structure**
	$	%
Sales	X	100
Cost of sales	(X)	
Gross Profit	X	

Then gross profit is the margin %

Margin		**Cost Structure**
	$	%
Sales	X	100
Cost of sales	(X)	
Gross Profit	X	20

Finally applying Sales – Cost of sales = Gross profit make cost of sale the balancing %.

Margin		**Cost Structure**
	$	%
Sales	X	100
Cost of sales	(X)	80
Gross Profit	X	20

Now lets compare that to 20% mark up which is based on cost. Start by putting 100% against cost of sales.

Margin		**Cost Structure**	**Mark up**		**Cost Structure**
	$	%		$	%
Sales	X	100	Sales	X	
Cost of sales	(X)	80	Cost of sales	(X)	100

Gross Profit	X	20	Gross profit	X	

Now put the mark up of 20% again gross profit.

Margin		**Cost Structure**	**Mark up**		**Cost Structure**
	$	%		$	%
Sales	X	100	Sales	X	
Cost of sales	(X)	80	Cost of sales	(X)	100
Gross Profit	X	20	Gross profit	X	20

Again applying Sales – Cost of sales = Gross profit make sales the balancing %.

Margin		**Cost Structure**	**Mark up**		**Cost Structure**
	$	%		$	%
Sales	X	100	Sales	X	120
Cost of sales	(X)	80	Cost of sales	(X)	100
Gross Profit	X	20	Gross profit	X	20

If we now take some numbers we can see how the cost structures can be used.

Sales $3,000

Margin		**Cost Structure**	**Mark up**		**Cost Structure**
	$	%		$	%
Sales	3,000	100	Sales	3,000	120
Cost of sales		80	Cost of sales		100
Gross Profit		20	Gross profit		20

If we calculate Gross profit for each cost structure – divide the sales figure by the number to its right to give 1% and the multiply by 20 to give gross profit in each case.

Margin		**Cost Structure**	**Mark up**		**Cost Structure**
	$	%		$	%
Sales	3,000	**100**	Sales	3,000	**120**
Cost of sales		80	Cost of sales		100
Gross Profit (3,000 ÷ 100) x 20	600	**20**	Gross profit (3,000 ÷ 120) x 20	500	**20**

Cost of sales is then the balancing figure.

Margin		**Cost Structure**	**Mark up**		**Cost Structure**
	$	%		$	%
Sales	3,000	100	Sales	3,000	120
Cost of sales	**(2,400)**	80	**Cost of sales**	**(2,500)**	100
Gross Profit (3,000 ÷ 100) x 20	600	20	Gross profit (3,000 ÷ 120) x 20	500	20

Or we can calculate cost of sales and let gross profit be the balancing figure.

Margin		**Cost Structure**	**Mark up**		**Cost Structure**
	$	%		$	%
Sales	3,000	**100**	Sales	3,000	**120**
Cost of sales (3,000 ÷ 100) x 80	(2,400)	**80**	Cost of sales (3,000 ÷ 120) x 100	(2,500)	**100**
Gross Profit	600	20	Gross profit	500	20

Let's apply that to a practical question.

A business purchased goods on credit for $3,300 the selling price was based on a gross profit mark-up of 120%. The goods were all sold for cash.

What is gross profit?

Draft a trading account and put in the cost structure based on a mark up of 120%.

Mark up		**Cost Structure**
	$	%
Sales		220
Cost of sales		100
Gross Profit		120

Put in the numbers you have and calculate the missing figures.

Mark up		**Cost Structure**	**Or,**		
	$	%		$	%
Sales (given)	3,300	220	Sales (given)	3,300	220
Cost of sales(3,300 ÷ 220) x 100	(1,500)	100	Cost of sales (balance)	(1,500)	100
Gross Profit (Balance)	1,800	120	Gross profit (3,300 ÷ 220) x 120	1,800	120

Introducing opening and closing inventory.

During September, your business had sales of $148,000, which made a gross profit margin of 25%. Purchases amounted to $100,000 and opening inventory was $34,000.

What is the value of closing inventory?

Draft a full trading account:

	$	$	%
Sales			
Opening inventory			
Purchases			
Less closing inventory			
Cost of sales			
Gross profit			

Put in the cost structure and figures you know

	$	$	%
Sales		148,000	100
Opening inventory	34,000		
Purchases	100,000		
	134,000		
Less closing inventory			
Cost of sales			75
Gross profit			25

Complete figures for cost of sales and gross profit using either one as the balancing figure.

	$	$	%
Sales		148,000	100
Opening inventory	34,000		
Purchases	100,000		
	134,000		
Less closing inventory			
Cost of sales		**111,000**	75
(148,000 ÷ 100) x 75			
Gross profit		**37,000**	25
(148,000 ÷ 100) x 25			

If opening inventory + purchases = $134,000 and cost of sales is $111,000 then closing inventory must be the difference between the two figures of $23,000 (134,000 – 111,000).

The trading account will look as follows:

	$	$	%
Sales		148,000	100
Opening inventory	34,000		
Purchases	100,000		
	134,000		
Less closing inventory	**(23,000)**		
Cost of sales		111,000	75
(148,000 ÷ 100) x 75			
Gross profit		37,000	25
(148,000 ÷ 100) x 25			

The accounting equation

You should have seen the accounting equation at the start of your studies. We are going to use the following version as it will generally be profit/(loss) that you are trying to calculate.

Profit/(Loss) = movement in net assets* – capital introduced +drawings

*net assets are total assets less total liabilities

This can be applied as follows:

A sole trader had opening net assets of $10,000 and closing net assets of $4,500. During the period, the owner introduced capital of $4,000 and withdrew $8,000 of drawings for their own use.

Profit or loss during the period was how much?

Movement in net assets – capital introduced + drawings = Profit /(Loss)

(4,500 – 10,000) - 4,000 + 8,000 = (1,500) Loss

Examples of the sorts of questions you may get on incomplete Records

Let's consider further examples of incomplete records questions and how you can apply the techniques to other styles of questions.

Starting with a purchases example. Using the following information, calculate the value of purchases:

	$
Opening payables	142,600
Cash paid to suppliers	542,300
Discounts received from suppliers	13,200
Goods returned to suppliers	27,500
Closing payables	137,800

The figure for purchases will be?

Again start by drafting a payables account

Payables Account

Dr		Cr
	Balance b/d	

Balance c/d			
		Balance b/d	

Now fill in the figures that you have starting with opening and closing balances.

Payables Account

	Dr		Cr
		Balance b/d	142,600
Balance c/d	137,800		
		Balance b/d	137,800

Now think about your purchase ledger control account and enter the transactions.

Payables Account

	Dr		Cr
Cash paid (to suppliers)	542,300	Balance b/d	142,600
Discount received (from suppliers)	13,200		
Returns outwards (to suppliers)	27,500		
Balance c/d	137,800		
		Balance b/d	137,800

And finally, balance the account showing purchases as the balancing figure.

Payables Account

	Dr		Cr
Cash paid (to suppliers)	542,300	Balance b/d	142,600
Discount received (from suppliers)	13,200	**PURCHASES (balancing figure)**	**578,200**
Returns outwards (to suppliers)	27,500		
Balance c/d	137,800		
	720,800		720,800
		Balance b/d	137,800

Now practice one for yourself.

Cook is a sole trader whose accounting records are incomplete. All the sales are cash sales and during the month $50,000 was banked, including $5,000 from the sale of a business vehicle.

He paid $12,000 wages in cash from the till and withdrew $2,000 as drawings. The cash in the till at the beginning and end of the month was $300 and $400 respectively. There were no other payments in the month.

What were the sales for the month?

Cash Account

	Dr		Cr
Balance b/d			
		Balance c/d	
Balance b/d			

The answer can be found at the end of the article.

Now a trading account with inventory figures

A sole trader who does not keep full accounting records wishes to calculate her sales revenue for the year. The following information is available – opening inventory $17,000, closing inventory $24,000, purchases $91,000 and gross profit margin is 40%.

What are the sales and gross profit figures?

	$	$	%
Sales			
Opening inventory			
Purchases			
Less closing inventory			
Cost of sales			
Gross profit			

Again the answer can be found at the end of the article.

Incomplete records processes can also be used to identified lost or stolen goods

On 31 December 2011 the some of the inventory of Green was destroyed by fire but the following information is available.

	$
Inventory at 1 December 2011 at cost	28,400
Purchases made during December 2011	49,600
Sales during December 2011 at selling price	64,800
Remaining undamaged inventory at 31 December 2011 at cost	5,860
Gross profit margin	30%

Draft a trading account as before, inputting all the information that you have

	$	$	%
Sales		64,800	100
Opening inventory	28,400		
Purchases	49,600		
	78,000		
Less closing inventory	(5,860)		
Inventory destroyed by fire	?		
Cost of sales			70
Gross profit			30

Apply your cost structure.

	$	$	%
Sales		**64,800**	**100**
Opening inventory	28,400		
Purchases	49,600		
	78,000		
Less closing inventory	(5,860)		
Inventory destroyed by fire	?		
Cost of sales		45,360	**70**
(64,800 ÷ 100) x 70			

Gross profit (Balance)		19,440	30

Finally, opening inventory + purchases = $78,000, cost of sales is $45,360 with closing undamaged inventory of $5,860 then the closing inventory lost in the fire must be $26,780.

		$	%
Sales		64,800	100
Opening inventory	28,400		
Purchases	49,600		
	78,000		
Less closing inventory	(5,860)		
Inventory destroyed by fire	**(26,780)**		
Cost of sales		45,360	70
(64,800 ÷ 100) x 70			
Gross profit		19,440	30

Another example;

There is a $100 cash float in the till at the year end Scone, but the accountant has discovered that some cash has been stolen. At the beginning of the year there was $50 in the till and sales in the year were $230,000. Cash and cheques banked from the till were $160,000. Scone had paid wages of $2,000 per month and made cash purchases of $45,000.

How much cash was stolen during the year?

Open a cash account and put in all the information you have.

Cash Account

	Dr		**Cr**
Balance b/d	50	Cash banked	160,000
Sales	230,000	Wages (12 x 2,000)	24,000
		Purchases	45,000
		Balance c/d	100
Balance b/d	100		

Balance the account and the balancing figure should be the cash that has been stolen. This style of question could also be applied to a bank account or use drawings as the missing figure rather than cash stolen.

Cash Account

	Dr		**Cr**
Balance b/d	50	Cash banked	160,000
Sales	230,000	Wages (12 x 2,000)	24,000
		Purchases	45,000
		CASH STOLEN (balance)	**950**
		Balance c/d	100
	230,050		230,050
Balance b/d	100		

Answers to practice questions:

Cash Account

	Dr		**Cr**
Balance b/d	300	Cash banked	50,000
Sale of vehicle	5,000	Wages	12,000
		Drawings	2,000
SALES	**59,100**		
		Balance c/d	400
	64,400		64,400
Balance b/d	400		

Trading account

	$	$	**%**
Sales		140,000	**100**
(84,000 ÷ 60) x 100			
Opening inventory	17,000		
Purchases	91,000		
	108,000		
Less closing inventory	(24,000)		
Cost of sales		84,000	**60**
Gross profit		56,000	**40**