

Business Interruption Insurance

Module 1: The Basics of BI

Introduction

Business Interruption (“BI”) insurance and claims are built on a few basic principles and if these are well understood the mystery of the subject is resolved. This article is the first of a series that will provide an introduction at a student level covering issues of policy response, what financial loss is insured, calculation of the reduction in turnover, Gross Profit as a rate and Gross Profit as a sum insured.

Loss of Profit Resulting from Business Interruption

Business Interruption insurance is based on a simple concept. There are only two ways in which a business can suffer an operating loss – either its sales reduce or its costs increase. Both these loss factors are typically insured by the Gross Profit Item of the policy.

Unfortunately the simplicity of this statement is sometimes lost in the detail of the policy document and in the calculation of claims, which can be complicated. The first complication is that in virtually all circumstances of loss of sales there will be offsetting savings in some of the expenses.

To illustrate the principles of BI insurance I have abbreviated a Statement of Financial Performance, which simply records the sales of a business over a period and the expenses incurred to achieve those sales.

Sales		\$12,000,000
Cost of Sales		
Opening Stock	\$100,000	
Purchases	\$8,350,000	
Wages- Manufacturing	<u>\$2,200,000</u>	
	\$10,650,000	
Less Closing Stock	<u>\$150,000</u>	
Cost of Sales		<u>\$10,500,000</u>
Gross Profit		\$1,500,000
Other Expenses		
Depreciation	\$250,000	
Rent	\$150,000	
Salaries	\$500,000	
Wages - Admin	\$225,000	
Other	<u>\$412,000</u>	
Total Other Expenses		\$1,537,000
Net Operating Profit/Loss		<u>-\$37,000</u>

You will see that the profit or loss of the business is the balancing figure between sales and costs. In this example, because expenses are greater than sales, there is an Operating Loss. Just think of it as a negative profit and wherever I refer to "profit" I mean "profit or loss".

The profit reduces if sales reduce (or if it is already a loss, it becomes a greater loss).

The profit reduces if costs increase.

Savings in expenses will reduce the impact on profit of the lost sales.

To illustrate these effects I have re-arranged the above financial statement to show Material Costs (or Cost of Sales) more clearly.

First, I have moved Direct Wages down the statement to separate it clearly from Purchases and Stock.

Sales	<u>\$12,000,000</u>
Cost of Sales	
Opening Stock	\$100,000
Purchases	\$8,350,000
Wages- Manufacturing	\$2,200,000
sub-total	\$10,650,000
Less Closing Stock	<u>-\$150,000</u>
	\$10,500,000
Gross Profit	<u>\$1,500,000</u>
Other Expenses	
Depreciation	\$250,000
Rent	\$150,000
Salaries	\$500,000
Wages - Admin	\$225,000
Other	<u>\$412,000</u>
Total Other Expenses	\$1,537,000
Net Operating Profit/Loss	<u><u>-\$37,000</u></u>

Sales	<u>\$12,000,000</u>
Cost of Sales	
Opening Stock	\$100,000
Purchases	<u>\$8,350,000</u>
sub-total	\$8,450,000
Less Closing Stock	<u>-\$150,000</u>
Material Costs	<u>\$8,300,000</u>
Gross Profit	<u>\$3,700,000</u>
Wages- Manufacturing	\$2,200,000
Other Expenses	
Depreciation	\$250,000
Rent	\$150,000
Salaries	\$500,000
Wages - Admin	\$225,000
Other	<u>\$412,000</u>
Total Other Expenses	\$1,537,000
Net Operating Profit/Loss	<u><u>-\$37,000</u></u>

You will notice that the figure labelled Gross Profit has been increased by moving Wages down below the Gross Profit line. This illustrates that Gross Profit is not a fixed value. It is a label applied to a subtotal that can be drawn at different points in the Statement of Financial Performance. Gross Profit should always be defined in a BI policy so that the insured and insurer know what is covered.

Then I have consolidated the Opening Stock plus Purchases less Closing Stock and labelled it "Material Costs".

Sales	<u>\$12,000,000</u>
Cost of Sales	
Opening Stock	\$100,000
Purchases	<u>\$8,350,000</u>
sub-total	\$8,450,000
Less Closing Stock	<u>-\$150,000</u>
Material Costs	<u>\$8,300,000</u>
Gross Profit	<u>\$3,700,000</u>
Wages- Manufacturing	\$2,200,000
Other Expenses	
Depreciation	\$250,000
Rent	\$150,000
Salaries	\$500,000
Wages - Admin	\$225,000
Other	<u>\$412,000</u>
Total Other Expenses	\$1,537,000
Net Operating Profit/Loss	<u><u>-\$37,000</u></u>

Sales	<u>\$12,000,000</u>
Material Costs (or Cost of Sales)	<u>\$8,300,000</u>
Gross Profit	<u>\$3,700,000</u>
Wages- Manufacturing	\$2,200,000
Other Expenses	
Depreciation	\$250,000
Rent	\$150,000
Salaries	\$500,000
Wages - Admin	\$225,000
Other	<u>\$412,000</u>
Total Other Expenses	\$1,537,000
Net Operating Profit/Loss	<u><u>-\$37,000</u></u>

These are the accounts of a manufacturer. For a trader, the Opening Stock plus Purchases less Closing Stock would be called "Cost of Goods Sold" or just "Cost of Sales".

These adjustments have not changed the profit/loss at the bottom of the statement, which is still -\$37,000.

Now I can illustrate a commercially realistic situation that involves a loss of sales. The next table shows a reduction in sales of 30%, or \$3,600,000. Almost inevitably there will be a directly proportional saving in the Material Costs. A 30% saving is \$2,490,000. In my example there are also savings of \$60,000 in several of the Other Expenses (say, Electricity and Repairs & Maintenance).

It is likely that there will also be increased costs, say, additional Direct Wage costs to minimise the interruption by working extra productive overtime or airfreight on replacement plant to reduce the reinstatement time. I have included \$300,000 for additional Wages.

	Standard	Actual (after fire)	Reduction
Sales	\$12,000,000	8,400,000	3,600,000
Material Costs (or Cost of Sales)	8,300,000	5,810,000	2,490,000
Gross Profit	<u>3,700,000</u>	<u>2,590,000</u>	<u>1,110,000</u>
Wages- Manufacturing	2,200,000	2,500,000	-300,000
Other Expenses			
Depreciation	250,000	250,000	
Rent	150,000	150,000	
Salaries	500,000	500,000	
Wages - Admin	225,000	225,000	
Other	412,000	352,000	60,000
Total Other Expenses	<u>1,537,000</u>	<u>1,477,000</u>	<u>60,000</u>
Net Operating Profit/Loss	<u><u>-\$37,000</u></u>	<u><u>-1,387,000</u></u>	<u><u>1,350,000</u></u>

You will see that the total impact of this interruption is an additional loss of \$1,350,000. The individual elements, which have transformed a \$37,000 loss into a \$1,387,000 loss, are:

Loss of Sales -30%	\$3,600,000
Less Savings in Raw Materials -30%	<u>-\$2,490,000</u>
Subtotal	\$1,110,000
Less Savings in Other Expenses	-\$60,000
Plus Increased Costs	\$300,000
Total Interruption Losses	<u><u>\$1,350,000</u></u>

BI Policy Response

This business would be compensated precisely for its interruption loss if its BI policy were to reimburse it for the loss of sales, less savings in expenses plus increased costs, which total \$1,350,000.

Sales		\$8,400,000
Material Costs		<u>\$5,810,000</u>
(or Cost of Sales)		
Gross Profit		\$2,590,000
Other Expenses		
Wages	\$2,500,000	
Depreciation	\$250,000	
Rent	\$150,000	
Salaries	\$500,000	
Wages - Admin	\$225,000	
Other	<u>\$352,000</u>	
Total Other Expenses		<u>\$3,977,000</u>
		-\$1,387,000
Plus Insurance Claim		\$1,350,000
		<u><u>-\$37,000</u></u>

This is exactly what is provided by the business interruption policies commonly used in New Zealand.

If a business is reimbursed for its lost sales, and increased costs, less expenses that are saved it can pay all the expenses that are not saved and have exactly the same profit margin left over, as it would have achieved but for the loss.

Before looking at the words in the BI policy (in the next article in the series) I would make a couple of comments about this illustration.

First, it answers the question:

“Do I need to insure for loss of profits if my business is not making a profit?”

You will see that this business was making a net loss but the interruption resulted in a much worse net loss. It went from a \$37,000 loss to \$1,387,000 but the insurance claim returned it to precisely the same \$37,000 net loss result that it would have achieved but for the interruption.

Secondly, you will recall that in one layout of the Statement of Financial Performance the Gross Profit is shown as \$1,500,000 and in the other it is \$3,700,000.

The difference is in where the Manufacturing Wages have been shown, either above the Gross Profit line or below it. Neither is wrong.

But this illustrates that the term Gross Profit can mean different things to different people and when we consider how to insure a business and set the sum insured, we must not assume that the “Gross Profit” in the financial accounts is the appropriate Gross Profit for BI insurance.

In concluding I will recap the fundamental concept of business interruption insurance.

- 1 There are only two ways in which an interruption can cause a business to suffer a loss of profit. Either its sales go down or its operating costs go up.**
- 2 If a business loses sales it is almost certain that it will save some of its costs. Raw material cost or cost of goods sold is a good example.**
- 3 To be indemnified, its BI insurance policy must reimburse it for the loss of sales less saved expenses plus the increased costs of working. It will then be able to meet all expenses that were not saved and have the same surplus or deficit (i.e. profit or loss) that it would have achieved from normal operations.**

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