

WHAT SALES DO I NEED TO PAY FOR MY OVERHEADS?

BREAK EVEN SALES

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Break Even Sales

1. Finding the Break-Even Sales

Here are some monthly profit figures of a business that has had its overheads increased:

Sales	10 000
Less Cost of Sales	6 000
Gross Profit	4 000
GP % to Sales 40%	
Less overheads	5 000
Taxable Net Profit/(Loss)	(1 000)
Less Drawings	1 200
Final Net Profit/(Loss)	(2 200)

As you can see this business has a problem. Its gross profit of \$4000 is not enough to pay for its overheads of \$5000. Sales must be increased so that additional gross profits can be made.

But how much more sales are needed? What sales levels must be reached so that there will be enough gross profit to pay for the overheads?

To find this figure simply divide the overheads by the GP %

$$\text{ie. } 5000 / 40\% = \$12\,500$$

Do it on your calculator.

In other words sales of \$12 500 will produce a gross profit of

$$\$12\,500 \times 40\% = \$5000$$

which is just enough to break-even, with no profit or loss.

This is the Break-Even Sales.

If this sales figure is an impossible target you need to either give the game away or make big changes.

If on the other hand you can manage these sales without too much trouble, then you can press on with confidence.

Either way, you should know just what the break-even sales figure is.

2. What Happens If I Drop My Prices?

Two assumptions are made in the break-even calculations;

- i The GP % will stay the same
- i The overheads will remain fixed.
- i The GP % will stay the same unless;

- i Bigger discounts are given to get the higher sales, or
- i Prices are cut.

If either of these happen it will have a dramatic effect on the break-even figure.

A 5% drop in prices would lower the GP % to 35%, because sales would drop but costs would remain the same. The break-even figure would now be

$$\$5000 / 35\% = \$14\,285$$

So a small drop in prices to achieve higher sales can mean that even higher sales must be reached to break-even. This can be a real trap.

Overheads do not of course remain completely fixed from month to month. Telephone or electricity bills do not come in every month and care repair costs can be big one month and very little the next. And over a long enough period all overheads will rise even if only because of normal price increases.

But usually the rises and falls in overheads will even themselves out, and overheads, on average will remain fairly steady.

That is, unless

- i Costs are not controlled and no limits are placed on entertainment costs, telephone usage etc.
- i Costs and overheads are cut through drastic action
- i The business expands to a point where higher overheads are inevitable. Higher rent for bigger premises is a good example.

Say that the business in this example not only dropped prices by 5%, but also spent an extra \$1000 a month on advertising. This means it must now achieve sales of

$$\$6000 / 35\% = \$17\,142$$

per month to break-even.

If this sales target is achievable, then this may be the right thing to do. But there may be other ways.

3. Did I Make a Profit This Week?

Knowing your break-even sales is say \$12 500 a month means that you can tell each week or each day if you have made a profit.

\$12 500 a month is roughly \$4000 a week.

So if sales are less than \$4000 a week you have not made a profit. Or, if the articles you stock or purchase

sell for an average of \$200 each, you need to sell 20 a week, or 4 a day.

A very simple way to set sales targets or to keep an eye on how you are going.

4. What Sales Do I Need to Pay *ME* a Decent Wage?

Very few people are in business for the fun of it. so you not only want to pay for the overheads, but you also want enough left over to live on, and perhaps a little more.

In the example given, the owner is drawing out \$1200 a month to live on and gets no other wage. What sales must be reached so that the business will have enough profit left over to let him continue to do this?

Simply add the drawings figure to the overheads and calculate as before:

$$\$5000 + \$1\ 200 = \$6\ 200$$

$$\$6\ 200 / 40\% = \$15\ 500$$

So \$15 500 sales will cover overheads and leave exactly \$1 200 for him to draw out.

5. What Sales Do I Need to Give Me A Reasonable Return On My Investment?

You paid \$30 000 for the business. You could have put the money in some safe investment returning say 15% per annum and gone out to work for someone else instead. (The opportunity cost of the business mentioned).

Because you have chosen a riskier investment you should expect a greater return - say 25%. In other words, in addition to the business earning good profit to pay you a wage, it should also be able to give a Final Net Profit of

$$25\% \text{ of } \$30\ 000 = \$7\ 500 \text{ per annum}$$

Divide this figure by 12 to get a monthly figure. Then add it to the overheads and drawings figures and divide by the GP %.

For example

$$\$7\ 500 / 12 = \$625$$

$$\$6\ 200 + \$625 = \$6\ 825$$

$$\$6\ 825 / 40\% = \$17\ 062$$

This is the monthly sales needed to give you both a wage and the desired return on your investment.

6. Buying a Business - Using the Break-Even Sales to Check It Out.

What is the difference between the small corner-store milk bar and the one in the large shopping-centre?

The answer is the overheads in the shopping-centre will be higher. The GP % should be about the same, ie. the industry average.

Use this knowledge this way;

- i Add up the overheads of the prospective business, going through each item carefully. This should not be difficult as most can be easily checked ie. rent, telephone, staff wages, etc.
- ii Where you would operate the business differently, work out what the overheads would cost you and use that figure.
- iii Compare the industry average GP % to that of the business as explained in the previous chapter.
- iv Calculate the break-even sales.
- v Compare with the actual sales of the business.

Has the break-even sales been reached by the business? If not, see if it is achievable without increasing overheads.

If you have to spend extra on overheads, the business might not be a good buy.

If the target sales are easily achievable, you may have a bargain.

The following pages list the average gross profits of a range of businesses and the results of strategies, both increase and discounts.

GROSS MARGIN PERCENTAGES

<i>Retail</i>	<i>GP%</i>		<i>Retail</i>	<i>GP%</i>
Butchers	30.0		Mens Fashions	36.8
Delicatessens	27.7		Milk Bars	42.3
Electrical	56.0		New Car Dealers	16.1
Flower & Garden	45.8		Newsagents	24.7
Footwear	35.9		Record & Music	29.2
Fruit & Vegetable	37.1		Service Stations	21.5
Giftware	37.2		Sporting Goods	30.4
Hardware	30.7		Tyre & Battery Dealers	35.2
Jewellers	42.9		Womens Fashions	39.3
Liquor	21.3			

<i>Service</i>	<i>GP%</i>		<i>Service</i>	<i>GP%</i>
Building Contractors	23.4		Hotels	44.0
Commercial Printers	38.2		Private Hospitals	30.1
Credit Unions	81.9		Restaurants	59.0
Dry Cleaners	71.3		Smash Repairers	57.5
Electrical Contractors	56.0		Single Truck Operators	54.6
Hairdressing Salons	83.6		Travel Agents	50.0

<i>Professionals</i>	<i>GP%</i>		<i>Professionals</i>	<i>GP%</i>
Accountants	66.2		Pharmacies	36.3
Architects	65.0		Real Estate Agents	57.0
Legal Practices	66.5		Surveyors	67.3

<i>Manufacturing</i>	<i>GP%</i>		<i>Manufacturing</i>	<i>GP%</i>
Bakers	45.4		Wooden Furniture	23.4

Source: Financial Management Research Centre, University of New England, Armidale, NSW

PRICING STRATEGY

If you adopt a premium pricing strategy the following table show the amount by which your sales would have to decline following a **price increase** before your gross profit is reduced below its present level. For example, at the same 40% margin a 10% increase in price could sustain a 20% reduction in sales volume.

If your present margin is....

20%	25%	30%	35%	40%	45%	50%	55%	60%
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And you increase
your price by...

Your sales could decline by the amount shown
below before your gross profit is reduced.

2%		9%	7%	6%	5%	5%	4%	4%	4%	3%
4%		17%	14%	12%	10%	9%	8%	7%	7%	6%
6%		23%	19%	17%	15%	13%	12%	11%	10%	9%
8%		29%	24%	21%	19%	17%	15%	14%	13%	12%
10%		33%	29%	25%	22%	20%	19%	17%	15%	14%
12%		38%	32%	29%	26%	23%	21%	19%	18%	17%
14%		41%	36%	32%	29%	26%	24%	22%	20%	19%
16%		44%	39%	35%	31%	28%	26%	24%	23%	21%
18%		47%	42%	38%	34%	31%	29%	26%	25%	23%
20%		50%	44%	40%	36%	33%	31%	29%	27%	25%
25%		56%	50%	45%	42%	38%	36%	33%	31%	29%
30%		60%	55%	50%	46%	43%	40%	38%	35%	33%

DISCOUNTING POLICY

The following table indicates the increase in sales that are required to compensate for a price **discounting policy**. For example, if your gross margin is 30% and you reduce price by 10% you need sales volume to increase by 50% to maintain your profit. Rarely has such a strategy worked in the past and it's unlikely that it will work in the future.

If your present margin is.....

20%	25%	30%	35%	40%	45%	50%	55%	60%
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And you reduce your price by...

To produce the same profit your sales volume must increase by...%

2%		11%	9%	7%	6%	5%	5%	4%	4%	3%
4%		25%	19%	15%	13%	11%	10%	9%	8%	7%
6%		43%	32%	25%	21%	18%	15%	14%	12%	11%
8%		67%	47%	36%	30%	25%	22%	19%	17%	15%
10%		100%	67%	50%	40%	33%	29%	25%	22%	20%
12%		150%	92%	67%	52%	43%	36%	32%	28%	25%
14%		233%	127%	88%	67%	54%	45%	39%	34%	30%
16%		400%	178%	114%	84%	67%	55%	47%	41%	36%
18%		900%	257%	150%	106%	82%	67%	56%	49%	43%
20%		-	400%	200%	133%	100%	80%	67%	57%	50%
25%		-	-	500%	250%	167%	125%	100%	83%	71%
30%		-	-	-	600%	300%	200%	150%	120%	100%