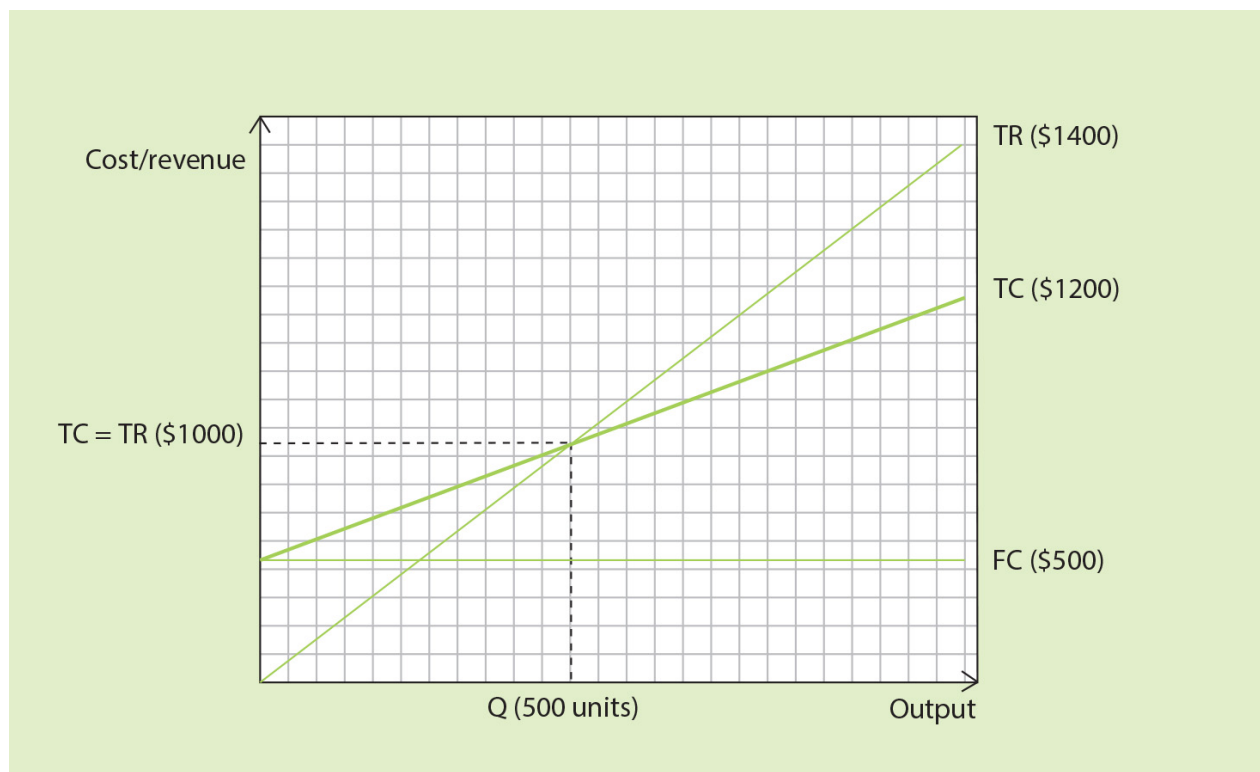




Section 3.3

Activity 3.3.1

1. The 'break-even point' is the level of output at which total costs equals total revenue.
2. Hamburger stall break-even diagram:

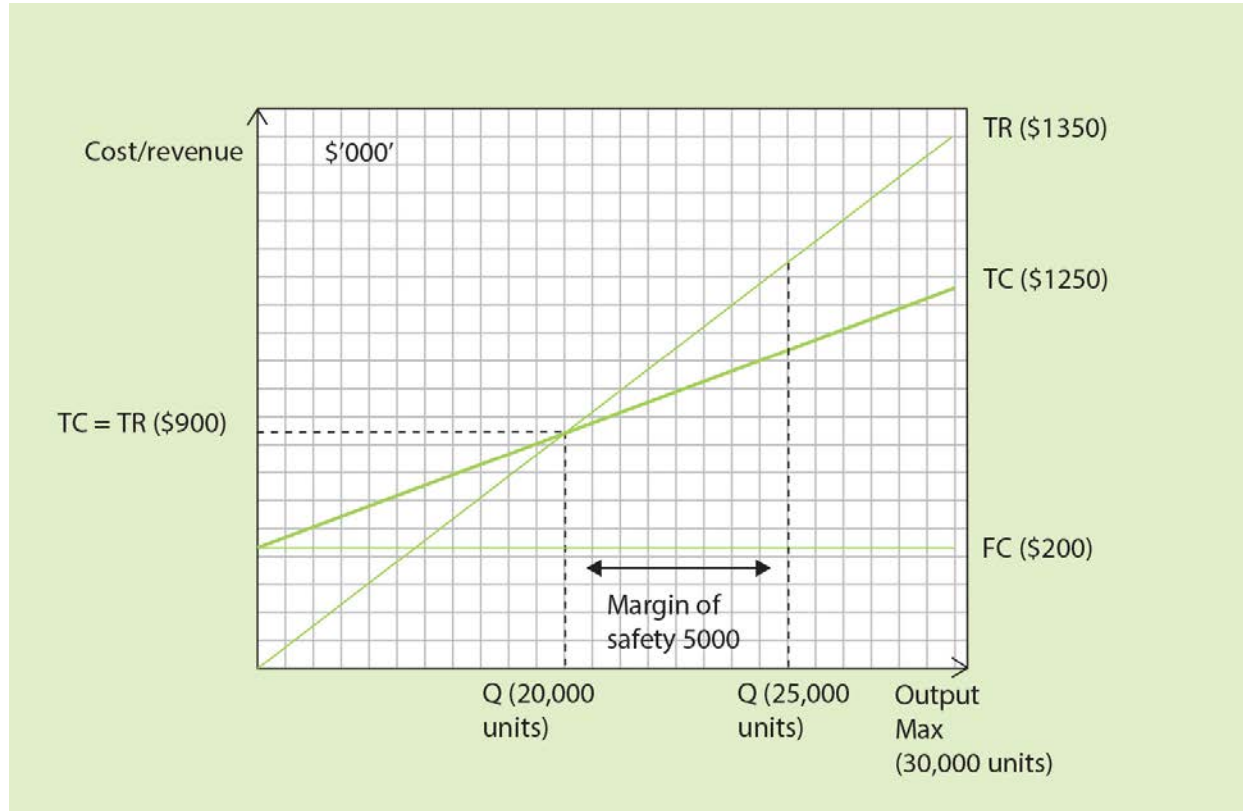


Activity 3.3.2

1. 'Unit contribution' is the selling price of the product minus its unit variable cost.



2. La Pitch's break-even diagram:



La Pitch profit:

| | | \$'000 |
|--------------|---------------|--------|
| Sales | 25,000 x \$45 | 1,125 |
| Direct costs | 25,000 x \$35 | 875 |
| Contribution | 1,125 - 875 | 250 |
| Fixed cost | | 200 |
| Profit | | 50 |

3. The advantages to La Pitch reducing the price of its tents might be:

- Lower price leading to a rise in units sold and sales revenue if demand is price elastic
- Higher sales leading to economies of scale
- Rise in market share increases La Pitch's name and power in the market.



The disadvantages might be:

- Fall in contribution means the firm has to sell more to cover fixed costs
- Lower price leads to a rise in units sold but sales revenue falls if demand is price inelastic
- Makes the product's quality seem lower in the mind of the consumer.

Activity 3.3.3

1. 'Direct costs' are costs that can be clearly identified with each unit of production and can be allocated to a cost centre.
2. $[\$0.5\text{m} + \$2.8\text{m}] / [\$50,000 - \$18,000] = 103 \text{ units.}$
3. Marab Sports might reduce its direct costs by:
 - Cutting the pay to direct labour
 - Making direct labour redundant
 - Negotiating a cheaper direct material price with suppliers.
4. The advantages of Marab reducing costs to increase profits might be:
 - It has more control over reducing costs than trying to increase sales
 - Cost reduction can be made quickly
 - Reduced costs can lead to reduced prices that increase sales.

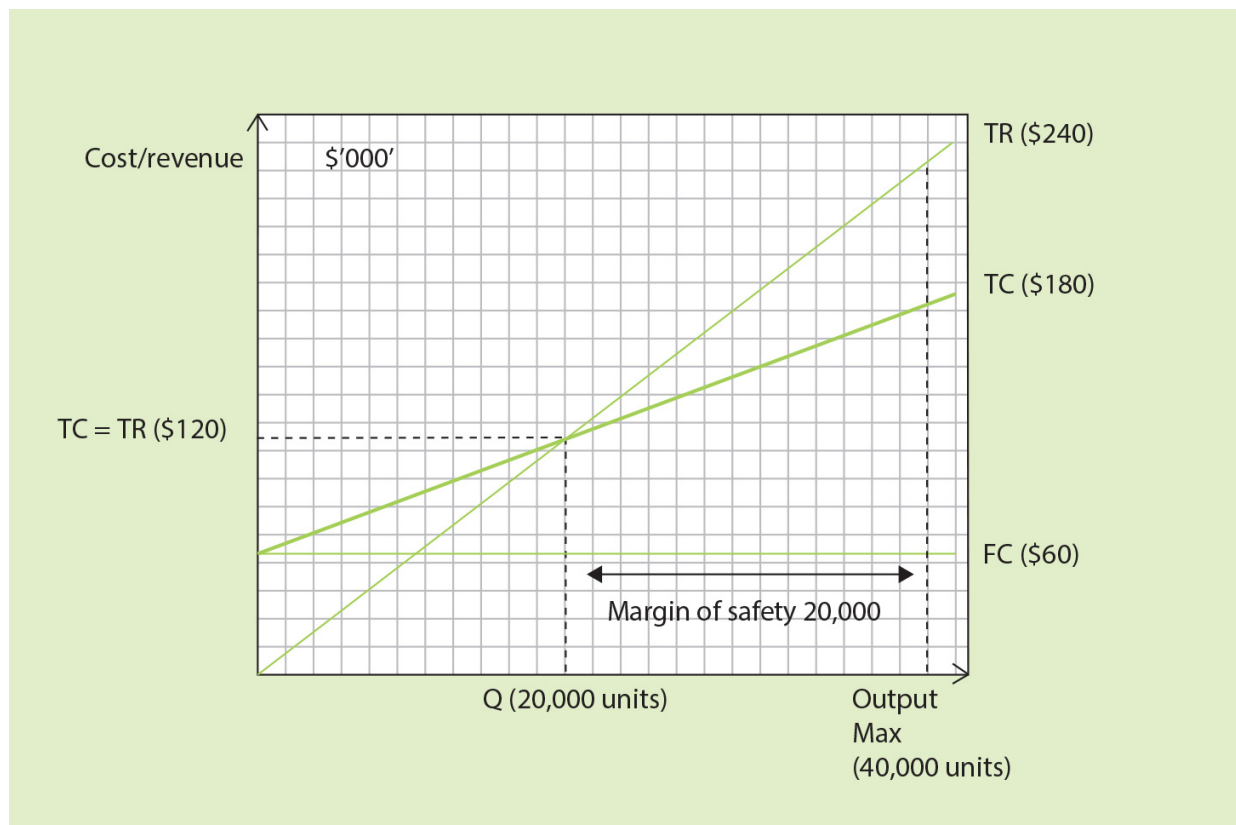
The disadvantages might be:

- Lower direct costs demotivate staff
- Lower direct materials could be lower quality
- Cutting costs damages the reputation of the business.



Activity 3.3.4

1. Site A break-even chart:

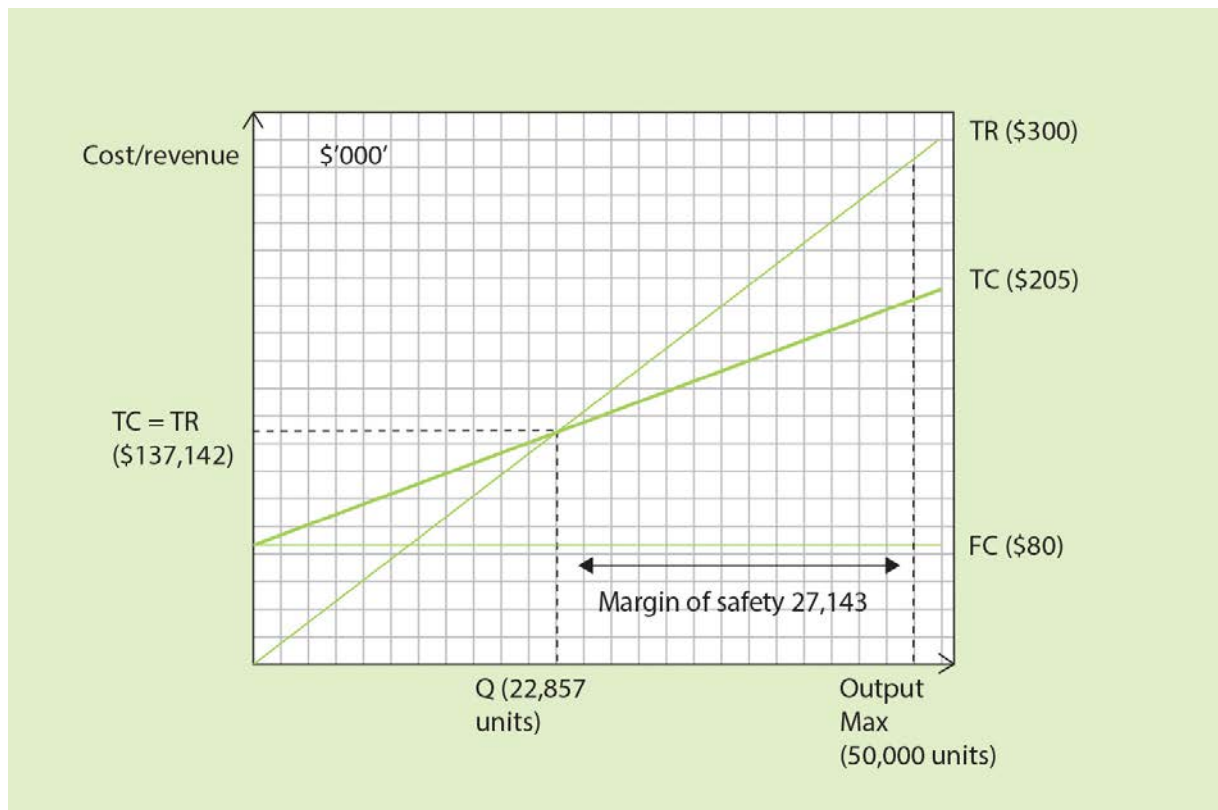


Saber Ltd profit:

| | | \$'000 |
|--------------|--------------|--------|
| Sales | 40,000 x \$6 | 240 |
| Direct costs | 40,000 x \$3 | 120 |
| Contribution | 240 - 120 | 120 |
| Fixed cost | | 60 |
| Profit | | 60 |



Site B break-even chart:



Saber Ltd profit:

| | | \$'000 |
|--------------|----------------|--------|
| Sales | 50,000 x \$6 | 300 |
| Direct costs | 50,000 x \$2.5 | 125 |
| Contribution | 300 - 125 | 175 |
| Fixed cost | | 80 |
| Profit | | 95 |

2. a. Break-even output:

Site A 20,000 units

Site B 22,875 units

b. Margin of safety:

Site A 20,000 units

Site B 27,143 units



c. Profit at maximum capacity:

Site A \$60,000

Site B \$95,000

3. Saber might choose:

- Site A because it has the lower break-even point and less risk
- Site B because it has the higher profit.

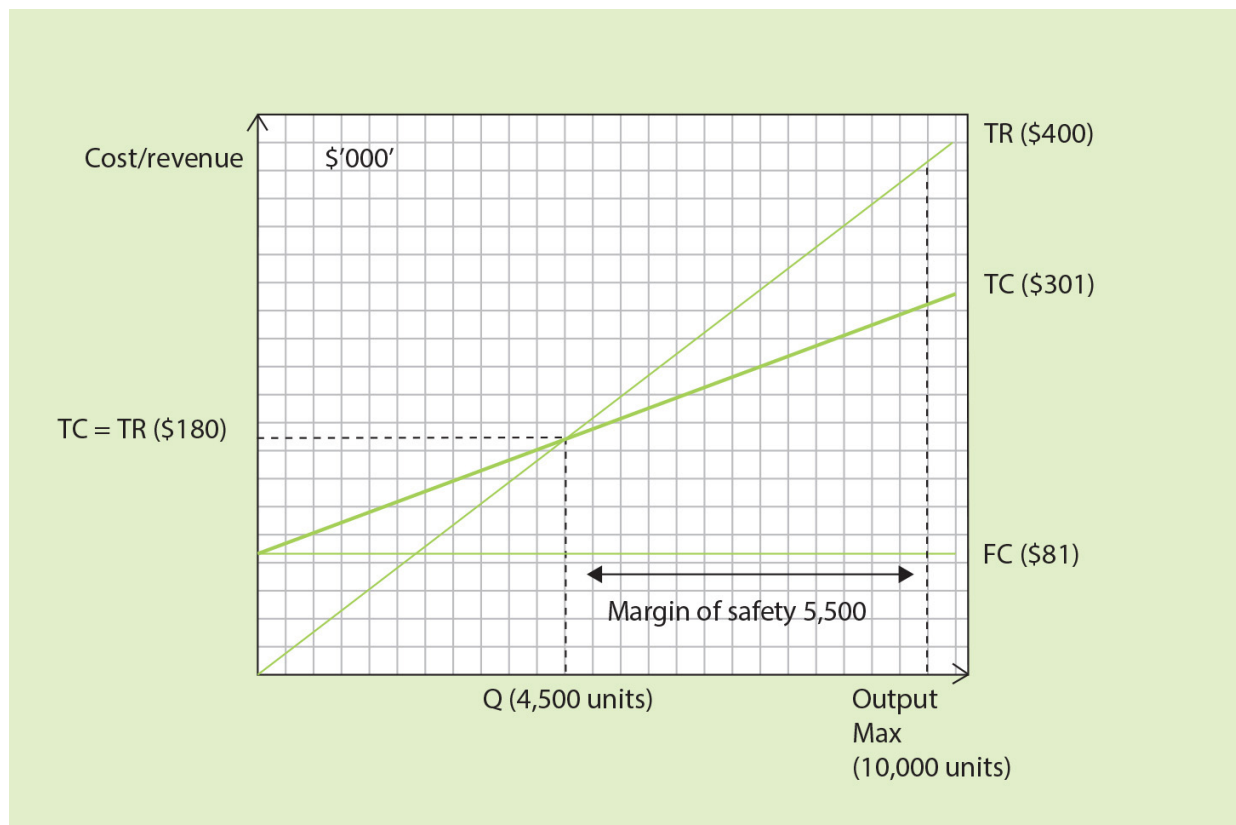
4. Other factors Saber might take into account when deciding on location include:

- Transport links
- Skilled work force
- Location of its suppliers.



Exam practice question

1. Break-even chart, Option 1:

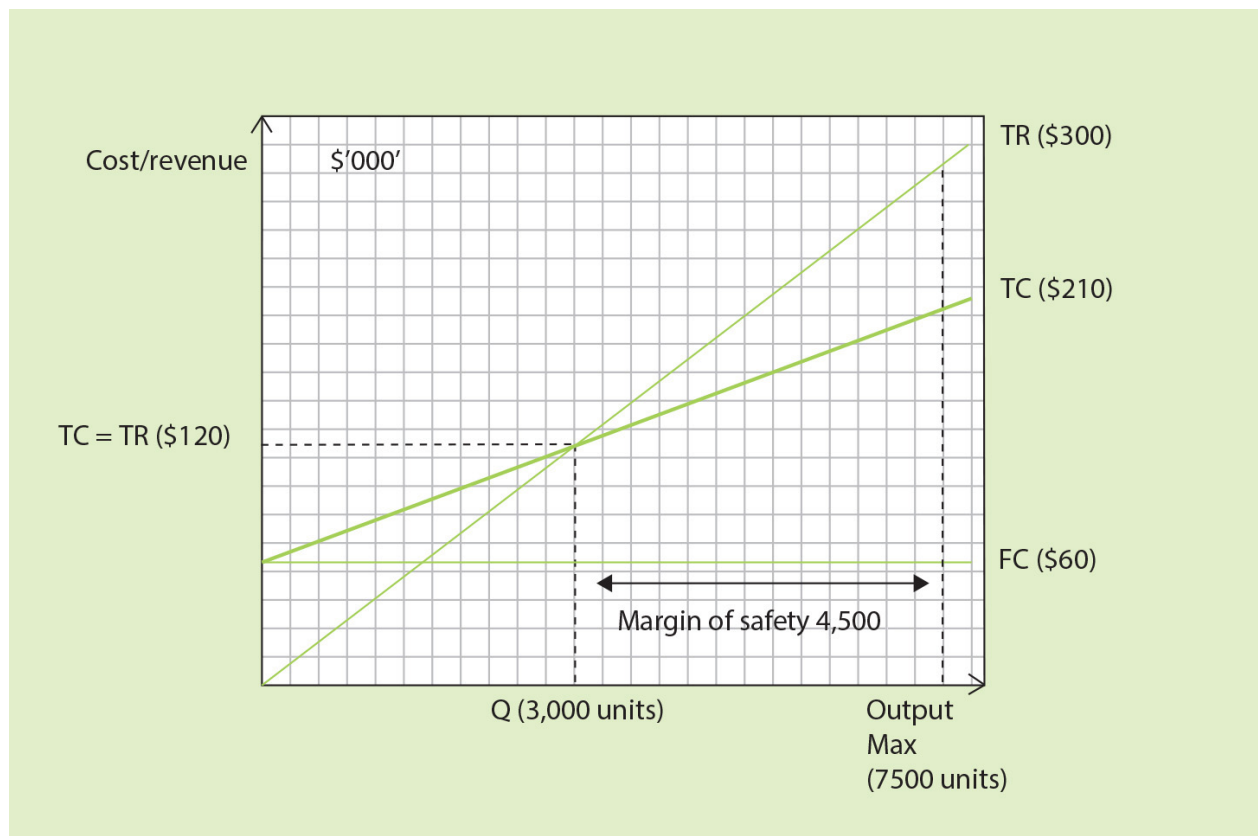


Windcheater profit:

| | | \$'000 |
|--------------|---------------|--------|
| Sales | 10,000 x \$40 | 400 |
| Direct costs | 10,000 x \$22 | 220 |
| Contribution | 400 - 220 | 180 |
| Fixed cost | | 81 |
| Profit | | 99 |



Break-even chart, Option 2:



Windcheater profit:

| | | \$'000' |
|--------------|-----------------|---------|
| Sales | 7,500 x \$40 | 300 |
| Direct costs | 7,500 x \$20 | 150 |
| Contribution | 300 – 150 = 150 | 150 |
| Fixed cost | | 60 |
| Profit | | 90 |



2. Windcheater might choose:

- Option 1 because it has the higher profit
- Option 2 because it has the lower break-even point and less risk.

3. Break-even analysis might be useful to a business like Winchester because it has the following strengths:

- Gives a graphical view of a decision, which is good for presentations
- Shows how costs, revenues and profits are affected by business activity
- Gives an assessment of risk through break-even and margin of safety.

It has the following weaknesses:

- Struggles to deal with semi-variable costs
- Assumes linear variable costs and revenues
- No allowance is made for non-monetary factors.

Key concept question

Business models like break-even might be useful to support business strategy because they:

- Give a graphical view of a decision, which is good for presentations
- Show how costs, revenues and profits are affected by business activity
- Give an assessment of risk through break-even and margin of safety
- Are an important planning tool
- Give an assessment of the financial consequences of resources
- Can be used as a guide to resource needs.

They have the following weaknesses:

- They are based on forecasted information where there is always some inaccuracy
- They assume the business has the resources to meet the variables in the model
- They struggle to deal with semi-variable costs
- They assume linear variable costs and revenues
- No allowance is made for non-monetary factors.