

## Payback and ARR (%)

### Pilgrim's choice (1)

Pip Pilgrim did not usually suffer from uncertainty. His business experience to date showed him to be a clear decision-maker, who was admired for his determination and confidence. However, the sudden influx of new ideas had taken him by surprise. He was certain that the board of directors would not agree to all of the new projects. He had been asked to rank them in order of priority, with a comment on whether they should be accepted or rejected on financial grounds. Pip studied the details:

#### Project 1: the advertising campaign

Production and advertising costs would be £800,000. The increase in sales would provide the following returns for the company:

Year 1:	£650,000
Year 2:	£200,000
Year 3:	£100,000

#### Project 2: converting to cell production

The Operations Manager estimated that increased productivity from this project would provide an annual return of £250,000 to the firm for each of the next 8 years. However, the initial investment costs would be £950,000. Staff training would add £50,000 to the initial costs, before any benefits could be gained from the project.

#### Project 3: the new computer network

The previous system had dated quickly and after 3 years it was deemed to be out-of-date and in need of replacement. The salesperson from the software company had been very helpful and persuasive. If they acted quickly, the software could be installed for £500,000 (a bargain according to the salesperson!). Pip reckoned it would lead to cost savings of £200,000 in each of the next 3 years.

#### Exercise 1 12 marks

For each of the three projects calculate:

- (a) the payback period (3 marks)
- (b) the average rate of return (%) (6 marks)

Based on these calculations, recommend which, if any, should be selected. Give your reasons. (3 marks)

#### Exercise 2 7 marks

Analyse reasons why it might be difficult to draw firm conclusions from your answers to Exercise 1.

#### Exercise 3 16 marks

- (a) Explain the main factors that would influence a firm's decision in agreeing an acceptable payback period for a project or investment. (6 marks)



(b) Using the factors identified in (a), place the following six projects in rank order of payback time. Explain the reasons for your rank order.

- the release of a new CD by Boys 'R' Us
- an outdoor activities training programme designed to improve teamwork and employee motivation
- the building of a new brewery
- a television advertising campaign
- the introduction of a new product by a toy company
- a 5-year sponsorship of the England hockey team

(10 marks)

