**EFFECTIVE FINANCIAL MANAGEMENT**

**Learning Outcome 5: ACTIVITY 4**

**Calculation of payback, accounting rate of return and net present value**

Remember that the WACC can be used as the discount rate for investment appraisal techniques such as net present value (NPV).

Road Toll Ltd has been offered the chance to bid to operate a new toll road that connects mainland India to a nearby island. You will return to this case study later in the module. Some of the terms in the case study may be unfamiliar at this stage. For now, consider the data in the context of sensitivity analysis.

The company has undertaken significant analysis of the likely level of demand over the next three years. The company has asked you as the Finance Manager to undertake further investment appraisal of the project to help it create the right kind of bid proposal. The following information is available.

The company has debt which costs 11% and its estimated equity cost of capital is 15%, it is geared 50:50.

The cost of the toll for using the road has been extensively researched and the marketing department has arrived at a fee of $10 per vehicle, per journey as acceptable to motorists.

The Finance team has estimated that running the toll service will cost $1,200,000 per annum.

The contract is for three years and the likely acceptable bid price for exclusive rights to operate the toll road is $1,000,000. All fixtures and fittings required to operate the toll road are included in this price, as is ongoing maintenance of the road and the toll facilities.

The analysis so far has predicted the following demand levels:

Estimated Demand

Year 1 2 3

Number of journeys 150,000 185,000 350,000

These could vary by as much as 10%, i.e. they could be 10% higher or 10% lower than this estimate.

The company has a hurdle payback period of two years, a companywide average return on investment of 25%.

So far the company has invested $100,000 in research and administration.

#### In small groups

Use the data to apply the following investment appraisal techniques to the investment opportunity:

1. Payback period
2. Accounting rate of return
3. Net present value.