

Gamma PLC is appraising an overseas investment project which has an expected life of four years and which will not be repeated. The initial investment, payable at the start of the first year of operation, is \$6 million. Scrap value of \$750,000 is expected to arise at the end of four years.

There is some uncertainty about what selling price can be charged for the units produced by the project, as this is expected to depend on the future state of the economy. The following forecast of selling prices and their probabilities has been prepared:

Future economic state	Weak	Medium	Strong
Probability of future economic state	30%	45%	25%
Selling price in current price terms	\$27 per unit	\$31 per unit	\$34 per unit

These selling prices are expected to be subject to annual inflation of 2% per year, regardless of which economic state prevails in the future.

Forecast sales and production volumes, and total nominal variable costs, have already been forecast, as follows:

Year	1	2	3	4
Sales and production (units)	140,000	260,000	410,000	310,000
Nominal variable cost (\$000)	2,400	4,300	7,100	6,200

Incremental overheads of \$450,000 per year in current price terms will arise as a result of undertaking the investment project. A large proportion of these overheads relate to energy costs which are expected to increase sharply in the future because of energy supply shortages, so overhead inflation of 6% per year is expected.

The initial investment will attract tax-allowable depreciation on a straight-line basis over the four-year project life. The rate of corporation tax is 20% and tax liabilities are paid in the year in which they arise. Gamma Co has traditionally used a nominal after-tax discount rate of 10% per year for investment appraisal.

Required:

Calculate the expected net present value of the overseas investment project and comment on its financial acceptability