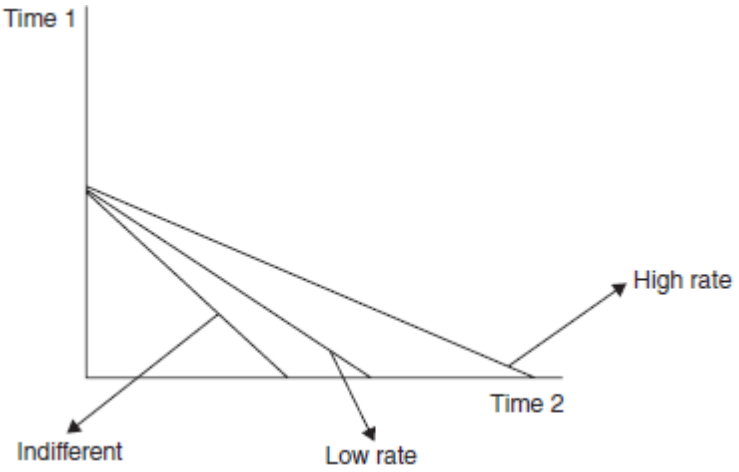
Farm Business Management: The Fundamentals of Good Practice

Chapter 7: Investment Analysis (Answers)

1. 

2. Adjusting monetary sums from different time periods so they become comparable with respect to time preference and other interest rate theories.

3. The average rate takes no account of the timing of cash flows, and decisions should be based on the marginal rates.

4. Because it only considers the periods up to the payback time, and it doesn't logically allow for time preference.

5. The internal rate of return for this point input–point output case is 9.5%.

6. By calculating the period cash flows and summing each's discounted value using an appropriate discount rate.

7. Assuming the cash flows on the first day of each year, the internal rate of return is close to 11.6%. Whether this investment is worthwhile depends on the return from the alternative investments. A return of 11.6% is quite high relative to ruling interest rates, so it is likely to be worthwhile.

8. Assuming the cash in any one year occurs on the first day of the year, the investment ratio (V / C) is 1.21, and the net present value (NPV) is $1295.04.

9. The annuity equivalent of a NPV of $10,000 for 10 years is $1295.04.

10. Because the investment ratio is just that, a ratio, it does not change with the quantity of units of development. But this assumes the efficiency of the project does not vary as the number of units of development increases.

11. The investment ratio will remain the same because it is a ratio, with the numerator and denominator changing in proportion. The changes will depend on whether the cash flows are discounted to the present in both cases before the ratio is calculated.

12. Assuming the cash flow occurs on the first day of each year, that the $18,000 is borrowed and thus the interest and principal repayments, and that the $10,000 net income that carries on throughout the programme is cash, the net cash flow after tax is each year $3500, −$2600, $3700 and $6100. This gives a NPV of $10,700.

13. One carried out using the records of an investment that has already been concluded.