
BUSINESS
2023/2024
REVIEW QUESTIONS
LESSON 5

1. *Michael James* is 63 years old and his salary is €40,000. He forecasts that his salary will increase at the steady rate of 1 percent per annum until his retirement at age 65. If the discount rate (his cost of capital) is 8%, what is the present value of these present and future salary payments?
2. *PINTEL, Inc* plans to pay a €5 dividend the next two years. At that point in time the price of the share, that is €50 nowadays, may have increased by 10%. If our cost of capital equals 6%, would it be a good investment? How much would you earn per share if you acquire them today?
3. *Falcon Lines* is considering the purchase of a new ship for \$20 million that will be useless in two years time. The forecasted revenues are \$30 million the first year and \$40 the second year. Operating costs are \$10 million and \$20 million respectively. Falcon Lines pays \$1 million for the maintenance of all their ships and the new one is not going to modify this amount. Assume that the previous quantities are both cashed in and cashed out each year. If the discount rate is 12 percent, what is the rate of return that the ship could provide?
4. You plan to go to Australia to visit some friends in three years. Your parents have deposited €6,000 for you in a bond paying 4% interest annually, maturing three years from now. Imagine that at that time your friends have moved back to Spain and you renounce to the trip. If you spend these savings in even amounts over the subsequent 2 years, how much can you spend each year? Your discount rate is 5%.
5. How much would you pay at most for a microwave that would save you 200 euros a year on eating out? The microwave consumes 30 euros a year in energy and takes up 0.1% of the place where you live, for which you pay a rent of 300 euros a year. You can use the microwave for the two years that you will be living in rent and then you could sell it on the second hand market for 40 euros.
If your cost of capital is 4%, what would be the profitability of the microwave if it finally cost 320 euros? (The data in the previous section remain the same, except that the price of the appliance is now known).