Year-end accounting balance sheet.

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| --- | --- | --- | --- |
| Current Assets | $500,000 | Accounts Payable | $400,000 |
| Net Fixed Assets | $1,600,000 | Short-Term Debt | 500,000 |
|  |  | Equity | 1,200,000 |

Equity on the balance sheet represents the sum of all the accounting “equity” accounts.

Expected sales for the upcoming year are $4,100,000. Costs of goods sold are 65% of sales and other operating expenses are $850,000. The interest rate on ABC’s short-term debt is 10% per annum. ABC’s tax-rate is 23%. Ignore depreciation in this problem.

(c) ABC intends to expand its operations. Sales are expected to increase by $1,000,000 per annum (thereafter into the indefinite future). You do not expect that “other” operating expenses will change. You do not expect cost of goods sold as a fraction of sales to change.

With this increase in future sales, will ABC’s EBITDA margin increase or decrease?

This change indicates that sales are a primary determinant of the EBITDA margin (other things equal).

The above business expansion requires an incremental investment of $400,000 in trade capital (to be maintained at this higher level indefinitely without yearly increase) and a capital expenditure in the amount of $300,000. ABC expects to pay dividends equal to net income. ABC intends to finance these two investments with long-term debt (financing is at the end of the year). ABC also expects to maintain the current level of its short-term debt. Find free cash flow for the upcoming year using both the operational and the financial definitions.

What is the rate of return (after tax) on ABC’s *incremental* investment in business activity? (Hint: because the benefit of the investment is ongoing, per annum, indefinitely into the future, the investment return is the increment to the firm’s after tax and after depreciation EBITDA, that is, the increment to after tax net operating income, divided by the increment to invested capital, which is the increment to trade capital plus capital expenditure).