EnCom Corporation[1]

INTRODUCTION

EnCom is a fictitious corporation that is designed to illustrate (i) the impact of aggressive and conservative accounting on the quality of earnings and (ii) the correspondence between the discounted free cash flow model (DCF) and residual income model (RIM) approaches to equity valuation.

EnCom is a very simple corporation that operates a business for just five years. At the end of each year, all free cash flow generated by the business is paid out to the owners as a dividend. The case proceeds in three stages:

1. We value EnCom using the traditional DCF approach and we also compute EnCom's internal rate of return (IRR) and prepare accrual-based financial statements for EnCom. This first-stage analysis serves as a benchmark for the second two stages.
2. We introduce a marketing project representing an incremental investment opportunity for EnCom. By considering different methods of accounting for the marketing project, we illustrate the impact of aggressive and conservative accounting on the quality of earnings.
3. We use the RIM approach to valuing EnCom. This stage illustrates the correspondence between the DCF and RIM approaches to valuation and also illustrates the robustness of RIM valuations to accounting distortions.

INITIAL CASE FACTS

EnCom commences business and engages in operating activities for five periods, with data as follow:

• The initial required investment in property plant at the beginning of the first period is $1,000. The equipment has a five-year useful life and zero salvage value. For accounting purposes, the equipment is depreciated using the straight-line method and all depreciation is treated as a period expense (i.e., it is not part of cost of goods sold).

• Sales per period are $1,200, with half of the sales revenue received in cash at the end of the period in which the sale is made and the other half received in cash at the end of the following period.

• The cost of goods sold is $720, with all inventory acquired for cash at the beginning of the period in which the sale is made (i.e., at the end of the previous period).

• There are no other expenses or sources of income and no other required working capital or investment requirements.

• At end of each period, all positive free cash flow is paid out as a dividend and all negative free cash flow is funded by additional capital contributions (so the cash balance is always zero).

• The discount rate is 10 percent.

STAGE ONE QUESTIONS

1. What is the total initial investment that is required at the beginning of the first period in order to start EnCom?
2. Compute the value of EnCom immediately after the initial investment at the beginning of period one using the discounted free cash flow method.
3. Compute EnCom's internal rate of return.
4. Prepare financial statements (income statements and balance sheets) for EnCom for each of the five periods that it is in business.
5. Compare EnCom's free cash flows and earnings for each of the five periods. Overall, which of the two measures do you think provides the best measure of EnCom's periodic performance? Why?
6. Compute EnCom's return on equity (ROE, computed as earnings for the period divided by

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[1] This case was prepared by Professor Richard Sloan as the basis for class discussion, rather than to illustrate either effective or ineffective handling of a business situation.

book value of equity at the beginning of the period) for each of the five periods. Compare EnCom's ROE for each period to EnCom's IRR and provide a qualitative explanation for any major differences.

ADDITIONAL CASE FACTS FOR STAGE TWO

An incremental investment project is available to EnCom, with data as follow:
• EnCom can engage in a marketing campaign during period one, with total marketing costs of $300, payable in cash at the end of period one.
• The marketing project produces incremental sales and cash inflows at the end of periods one, two, and three by $150 per period.
• All other facts remain the same.

STAGE TWO QUESTIONS

1. Compute the value of EnCom with the incremental project immediately after the initial investment at the beginning of period one using the discounted free cash flow method. Should EnCom invest in the incremental project?
2. Compute EnCom's IRR with the incremental investment project.
3. Assume that EnCom accounts for the incremental marketing project by expensing all marketing costs in the period they are incurred. Prepare financial statements for each of the five periods under this accounting assumption. Do you think this accounting assumption is aggressive, conservative, or neutral?
4. Assume that EnCom accounts for the incremental marketing project by capitalizing marketing costs and then amortizing them in proportion to the benefits received. Prepare financial statements for each of the five periods under this accounting assumption. Do you think this accounting assumption is aggressive, conservative, or neutral?
5. Assume that EnCom accounts for the incremental marketing project by capitalizing marketing costs and then expensing all of these costs in the first period in which no benefits are received from the project. Prepare financial statements for each of the five periods under this accounting assumption. Do you think this accounting assumption is aggressive, conservative, or neutral?
6. Which of the above three accounting methods do you think provides the best measure of EnCom's periodic performance? Why?
7. Compute EnCom's ROE for each of the five periods using each of the above three accounting methods. Explain how each of the different accounting methods impacts EnCom's ROE.
8. Using the insights from the EnCom example, provide a qualitative explanation of the impact of aggressive and conservative accounting on a firm's ROE relative to its IRR.

STAGE THREE QUESTIONS

1. Provide a separate residual income valuation for EnCom immediately after the start of business using each of the three accounting methods from stage two.
2. In question 1 above, you should have arrived at the same valuation regardless of the accounting method employed. Provide a qualitative explanation as to why the different accounting methods have no impact on the valuation.