

Chapter 8 – Example 1

Conventional is considering investing \$37.5 million today in a new retail store. The new store will fall into the 15-year MACRS class and will be built on land Conventional acquired a year ago for \$3 million. This land could be sold today for \$4 million. Conventional expects revenues a year from today to equal \$500 million. In the following years, sales are expected to grow by 2% per year. Conventional estimates that variable costs be the same as at existing stores and thus will equal 75% of revenues and that fixed costs associated with the store will equal \$87.5 million per year. The \$100 million per year spend operating Conventional's corporate headquarters will not change as a result of the new store, but 10% of this cost will be allocated to the new store. Net working capital (in millions) associated with the store will be as follows:

when the accounting department calculates the store's profits

Year	0	1	2	3	4	5
Cash	0.00	30.00	31.31	32.95	32.88	35.30
AR	0.00	16.25	16.24	17.56	18.52	18.35
Inv	0.00	63.75	66.45	69.20	72.40	73.49
AP	0.00	62.50	62.95	63.14	67.25	72.73

Set up the calculations needed to determine the new store's unlevered net income and free cash flow today and four years from today if Conventional's marginal tax rate equals 35%.

$$UNI_0 = 0$$

$$FCF_0 = 0 + 0 - (37.5 + (4 - 3)(.35)) - 0$$

$$UNI_4 = (R_4 - E_4 - D_4)(1 - .35)$$

$$R_4 = 500(1.02)^3$$

$$E_4 = .75R_4 + 67.5$$

$$D_4 = 37.5(.0770)$$

$$FCF_4 = UNI_4 + D_4 - 0 - \Delta NWC_4$$

$$\Delta NWC_4 = NWC_4 - NWC_3$$

$$NWC_4 = 32.88 + 18.52 + 72.4 - 67.25$$

$$NWC_3 = 32.95 + 17.56 + 69.2 - 63.14$$