Harmonic hearing case study essay sample

1.) Please refer to the spreadsheet for the FCF model. Under the debt scenario, the terminal value of the company is $45, 289, 826. Under the equity scenario, the terminal value of the company is $106, 237, 503. 48. For all debt, there will be a $13M cash outflow to buy back the building, a $7. 25 M cash outflow to pay back the mortgage to Collin Bank of Commerce and Bank of McKinney, and a $500k purchase of equipment. For all equity, the company will pay 2/3 of the cash flow in Year 7 to Comet Capital. Comet Capital is expected to earn a 25% before-tax internal rate of return.

2.) We will be able to calculate the net cash proceeds from the repurchased price of the real estate from Frank Thomas by setting NPV = 0 where NPV = PV (net cash proceeds from the repurchase price) + PV (Annual cash flows from the property) – Thomas initial investment, calculated at a 15% IRR. With an IRR of 15%, the present value of all the annual cash flow is $770, 347. 27.

PV (net cash proceeds) = $770, 347. 27 – $2, 100, 000 = -$1, 329, 652. 73

FV = $1, 329, 652. 73*(1. 15)^7

Net cash proceeds = $3, 536, 902. 7

Calculations of capital gains tax owed:

(0. 2)(X – $8, 669, 384) = Y

Calculations of net cash proceeds:

X – Y – $7, 250, 677 = $5, 245, 075. 08

X – 0. 2X + $1, 733, 876. 8 – $7, 250, 677 = $3, 536, 902. 7

0. 8X = $9, 053, 702. 2

X = $11, 317, 127

Harmonic must repurchase the building from Frank Thomas at $11, 317, 127 to produce his 15% after-tax required rate of return.

3.) Please refer to my calculations in the sheet named " Question #3". 59% of year 7's terminal value must be distributed to Comet Capital to produce its required 25% before-tax rate of return. The value created under the debt scenario is $37, 089, 386. 37. The value created under the equity scenario is $53, 099, 690. 74.

4.) Please refer to my calculations in the sheet named " Question #4". The rate of return for the debt scenario is 1756%. The rate of return for the equity scenario is 290%.

5.) For the all debt capital structure, one advantage is that Burns and Irvine will be able to retain 100% ownership of Harmonic. However, fixed payments such as rent, lease, and interest expenses are large, continuous obligations of the company. If forecasted cash flows fall short of expectations, the company would fall into financial distress. Another disadvantage is that there will not be enough funds to immediately manufacture the new hearing aids which will delay potential sales.

For the all equity capital structure, one disadvantage is that Burns and Irvine's ownership stake will be significantly reduced. However, with the extra equity capital from the investment, the company will be able to invest in the working capital and equipment required for internal manufacture of the new device. In addition, the new hearing aids will generate revenue sooner and at higher gross margins than in the all debt scenario. I would recommend Burns and Irvine accept Comet's Capital's offer and finance the company through private equity funds. There seems to be an error in my calculations of the sale price to repurchase the real estate from Frank Thomas. The rate of return for equity should be higher than the rate of return for debt. There is too much risk of potential bankruptcy with debt financing.