

Taxes and Business Strategy (15.518)
Sloan School of Management
Massachusetts Institute of Technology
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Problem Set 5 - Due Lecture #25

Show all computations.

Toxico Chemicals is planning to acquire Happy Cows Ice Cream in expectation of significant synergies between the two operations. Toxico is a processor of hazardous chemicals and is currently under investigation by the EPA, while Happy Cows is a maker of premium ice cream whose motto is “cows with self-esteem make better ice cream.” Happy Cows has an extremely strong brand name and much customer loyalty due to its progressive image. Speaking about the proposed acquisition of Happy Cows, Toxico’s CEO Billy Pilgrim, effuses “at Toxico, our core competency is processing. It doesn’t matter to us whether we are processing Benzene or Butter Brickle. We can find ways to save money and believe me, Happy Cows is a bloated operation.” Mr. Pilgrim has retained you to advise him how to structure the acquisition.

Assume the following:

	<u>Happy Cows (in \$ millions)</u>		
	Estimated	Book	Tax
<u>Happy Cows</u>	<u>FMV</u>	<u>Value</u>	<u>Basis</u>
Land	\$200	\$200	\$200
Equipment	300	100	100
Goodwill		<u>0</u>	<u>0</u>
		<u>\$300</u>	<u>\$300</u>
Liabilities	\$100	\$100	\$100
Equity		<u>200</u>	<u>200</u>
		<u>\$300</u>	<u>\$300</u>

1. All amounts are in \$ millions.
2. Happy Cows has an NOL carryforward of \$300 after current year operations.
3. Happy Cows is privately held by two brothers who each own 50% of the stock. Each has a basis of \$300 for a total basis of \$600. The brothers expect to hold any Toxico stock they receive until death.
4. Toxico can depreciate equipment over 5 years straight line for both tax and financial accounting purposes.
5. Assume any goodwill will be amortized the same for both tax and financial statement purposes – straight line over 15 years.
6. Assume that 8% is the applicable discount rate for all purposes, including any Section 382 limitations.
7. Toxico estimates that future net cash flows of Happy Cows have a present value of \$1600 to Toxico before taking into account the value of any step-up in tax basis. Note that these are net cash flows so they include paying off Happy Cows' \$100 of liabilities.
8. Toxico estimates that Happy Cows will generate \$120 of taxable income and pretax financial statement income per year in perpetuity before considering the effects of any step-up in basis or the effects of any NOL carryforwards.
9. Assume all ‘boot’ is taxable at capital gains rates.
10. Tax rates are as follows:
 - Corporate tax rate is 35%
 - Capital gains rate for individuals is 20%
 - Personal tax rate is 40%

Consider the following scenarios:

1. Toxico buys all the assets and assumes liabilities of Happy Cows for \$1600. Happy Cows liquidates.
2. Toxico buys all the assets and assumes liabilities of Happy Cows in exchange for Toxico stock worth \$1400. Happy Cows liquidates, distributing the Toxico stock to the brothers.
3. Toxico buys all the stock of Happy Cows in exchange for \$400 cash and \$1000 of Toxico stock. Happy Cows is merged into HC Acquisition, a newly formed subsidiary of Toxico.
4. Toxico buys all the stock of Happy Cows for \$1300.
5. Toxico buys all the stock of Happy Cows for \$1300 and makes a Section 338 election.
6. Toxico buys all the stock of Happy Cows for \$1400 of Toxico Stock

Answer the following questions for each scenario:

- a. How much tax will Happy Cows pay on the sale?
- b. How much tax will Happy Cows shareholders pay on the sale?
- c. How much after tax cash, if any, do Happy Cows shareholders get?
- d. How much Toxico stock do Happy Cows shareholders get, if any? What is their basis in the Toxico stock?
- e. What basis does Toxico take in the assets of Happy Cows and any Happy Cows stock (if any) it owns?
- f. What is the present value of Happy Cows in the hands of Toxico?
- g. What is the NPV of the acquisition from Toxico's perspective?

Then identify the acquisition method(s) that:

1. Maximizes the NPV of Toxico.
2. Maximizes the after tax wealth of the Happy Cows shareholders.
3. What are your recommendations?