Cory Nichols – Managerial Economics – MSDS – 2017-05-09

**4. Managers at Du Pont de Nemours and Company expect a profit of 2.9 billion in 2012. Does this mean that Du Pont’s expected economic profit will equal 2.9 Billion? Why?**

No, Du Pont’s economic profit will not equal 2.9 billion if that profit is considered ACCOUNTING profit because accounting profit does not take into account opportunity cost. If Du Pont had an investment opportunity of 1.0 billion that was passed up, economic profit would be 1.9 billion. If Du Pont considers economic profit and includes opportunity cost, profit types will be equal.

**5. William Howe must decide whether to start a business renting beach umbrellas at an ocean resort during June, July, and August of next summer. He believes he can rent each umbrella to vacationers at $5 a day, and he intends to lease 50 umbrellas for the three-month period for $3,000 (this is a cost). To operate this business, he does not have to hire anyone (but himself), and he has no expenses other than the leasing costs and a fee of $3,000 per month to rent the business location. Howe is a college student, and if he did not operate this business, he could earn $4,000 for the three-month period doing construction work.**

(a) If there are 80 days during the summer when beach umbrellas are demanded and Howe rents all 50 of his umbrellas on each of these days, what will be his accounting profit for the summer?

Earnings:

50 umbrellas \* 5 dollars per day \* 80 days: 20000

Costs

Materials Leasing Costs: 3000

Rent Costs: 9000

**Accounting Profit: 8000**

(b) What will be his economic profit for the summer?

Accounting Profit: 8000

* Opportunity Cost: 4000

**Economic Profit: 4000**

**6. On March 3, 2008, a revival of Gypsy, the Stephen Sondheim musical, opened at the St. James Theater in New York. Ticket prices ranged from $117 to $42 per seat. The show’s weekly gross revenues, operating costs, and profit were estimated as follows, depending on whether the average ticket price was $75 or $65:**

A. With a cast of 71 people, for each scenario, what is the payback period?

$75 avg ticket price:

Profit of 165K per week

**Payback period (in weeks) for $10M: ~61 weeks**

$65 avg ticket price:

Profit of 80K per week

**Payback period (in weeks) for $10M: ~125 weeks**

B. There is a 2/3 chance of losing money with each show, which means there is substantial risk involved with losing the entire investment of $10M. Example A considers best-case scenario: sold out shows and average operating costs. Variability in these scenarios will obviously lead to differing outcomes from a profit perspective. Combine this with the assumption that two out of three shows are unprofitable and the payback period above looks far grimmer, if even possible. That being said, if we have expected profit numbers, for instance if we had a 1/3 chance of making $100M in profit, we could expect profit to be (2/3)(-10M)+(1/3)(100M) = +40M in profit. In this case, the risk may be worth the reward.

C. The profit figures should definitely be interpreted with caution given the qualitative feedback. Economic analysts must account for this industry-type trend where “money isn’t made” because Wall Street is only seen a launching pad for future earnings and not an earnings platform in and of itself. Profits from future shows are also not accounted for.

D. Yes, this will be a reward for bearing the risk. Risk is embedded in the return scenario.

**7. Equilibrium Price and Quantity: If the demand curve for wheat in the US is P = 12.4-QD and supply curve is P = -2.6 + 2QS**

Demand Curve: P = 12.4 – QD

Supply Curve: P = -2.6 + 2QS

12.4-Q = -2.6+2Q

**Q = 5**

**Equilibrium price = 7.4 dollars per bushel**

**Equilibrium quantity = 5B bushels**

If we consider a product to be at equilibrium price and quantity, demand and supply are equal and actual price should equal equilibrium price.

Actual price may not equal equilibrium price, though it will trend toward the equilibrium price, if there is a lack of supply for instance. Cost, goods availability and other factors contribute to the actual price not equaling the opportunity cost.

**8. Lumber Industry Problem**

This was due to a left shift in the demand curve. Less people were demanding new homes overall (as seen by the glut of unsold homes). This means that the demand for lumber was less, shifting the demand curve for lumber to the left. If supply stays the same, price drops.

**9. Gold and USD Devaluation**

A. It was primarily due to a shift in the demand curve to the right and a movement along the supply curve up and to the right because of the right shift in demand. Prices on supply side will tend to trend upward to equilibrium due to the shift in demand because of speculative purchases. It could be assumed, however, that a falling dollar would also result in higher production costs for refining gold. This means that the supply curve for gold could shift left, driving prices higher as well.

B. The right shift in the demand curve and resulting price increase will shift the supply curve for gold jewelry to the left as inputs for gold jewelry become more expensive.