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Econ 304—Bethany College

**Homework 07**

Answer all the following on a ***typed, stapled*** (if applicable)separate sheet of paper. Make sure that you justify your answers, use your own words, and show your work. All questions are equally weighted.

1. I mentioned two examples of the tragedy of the anti-commons—bio-patents and land ownership for expanding runways. Describe a different example, making sure to explain how you know that underutilization of the resource comes from too many property rights. Do not use hypothetical examples.

*Software patents—indeed any kind of patents—are subject to the anti-commons tragedy. With so much technology dependent on previous technology, the “patent thicket” prevents an inventor from taking the technology one step farther. If one organization owned all these bits, or some bits were part of the intellectual commons, the tragedy would diminish.*

*The same problem can be extended to copyright. As musicians might have discovered, taking multiple different styles and mixing them into a new style—the origin of many styles including jazz—is impractical when ownership to a style is assigned to someone. This is doubly hard for a specific piece of music where not only something new would require more pieces but the copyright protecting them is stronger.*

*Whenever anything very large needs to be built—highways, pipelines, hospitals—private developers often have trouble getting property owners to sell; they easily enter the holdout problem since any one person can veto production. Eminent domain—taking the property and compensating with the “fair market value”—solves this tragedy of the anti-commons problem.*

*In the U.S. Senate, senators can effectively veto any legislation with a filibuster (there are limits to this since a two-thirds majority can overrule a filibuster). The threat of this veto hampers legislative activity and we get fewer laws passed (though because of the large negative externalities of these laws, I consider this “tragedy” a good thing).*

1. We discussed double marginalization in class, going over the math Spengler used to illustrate why one monopoly is more socially beneficial than two monopolies at different stages of production. Explain why this idea makes sense without using math. (Thinking in terms of externalities would be helpful.)

*This is really a story of externalities. When you have double marginalization consumers buy based on the combined price from each monopoly. If one monopoly increases its price, the additional revenue is outweighed by the drop of customers. The other monopoly also gets fewer customers without any additional benefit. Or, raising pricing externalizes a cost onto others. Since this is a negative externality, we get prices that are too high (higher than they would be under vertical integration).*

1. In principles of microeconomics this week, I will pass out to each student a puzzle piece and some poker chips. Each chip represents one extra credit point on homework which they will cash in at the end of the class. Each puzzle piece will be worth one point as well, also to be cashed in at the end of class. But if any one student collects all twenty-five puzzle pieces, the assembled puzzle is worth 100 points at the end of class. Students can borrow points from me, incurring negative extra credit points, to get chips for trading purposes. Predict what will happen and justify your answer. (NOTE: This is an experiment which I’ve never tried nor have heard of anyone trying. The quality of your answer will based solely on your justification.)

*This is an example of the tragedy of the anticommons. In theory, no one will be able to assemble the puzzle because of the holdout problem. Too much private property will grind exchange to a halt and everyone will be holding just a few pieces.*

*As noted, this is exactly what happened in the first section. In the second section, someone assembled the puzzle but it was very hard. It took about half an hour of trading to get it made. Next time, I’ll add a time limit.*

1. Why does a large β suggest a lot of nondiversifiable risk? Provide an example of an investment which probably has a lot of nondiversifiable risk. Justify your answer.

*People are risk adverse so if an option is risky, yields must increase proportionally more so the expected gains are higher than the expected gains of a safe option. This “risk premium” over the safer option comes about because there are not a lot of places you can diversify your risk away. Your risk is nondiversifiable.*

*Relationships are like this. Social convention suggests you cannot seriously date multiple people and the law prevents you from marrying multiple people. Thus you must put all your eggs (time and energy) into one basket (person). You cannot diversify some of your risk from devoting your life to one person by dating or seeing others. You are all in, so to speak.*

1. Recall Lecture 28 depicts a yield curve with a slightly convex shape in the first 100 months to maturity. How does the curve normally look and why? What would cause it to be so strangely shaped now and why?

*The big news article which would explain this is the announcement by the Fed that it will keep interest rates low; it certainly won’t increase them. That means they will either stay the same or go lower. That can only put downward pressure on future rates, encouraging people to buy bonds now which then reduces yields on current rates. But since in the long run no one expects this to be the rule—interests will increase in 10 years—the curve returns to normal.*