ECON 522 - DISCUSSION NOTES ON CONTRACT LAW

I Contracts

When we were studying property law we were looking at situations in which the exchange of goods/services takes place at the time of trade, but sometimes in trade situations the actual exchange is delayed. Contract law covers trade in which the exchange of goods takes place after the deal, which essentially makes contracts promises to perform in the future. Most of our analysis of contracts examines how to design the law so that individuals make contracts when there are potential gains from trade, and also break contracts when performance becomes so costly that it is inefficient.

I.1 Bargain Theory

A contract is a promise, but should every promise be a legally binding contract? The answer, for efficiency's sake, is definitely no. But if not all promises are legally enforceable, we need to figure out which types of promises should be enforceable. The Bargain Theory is one attempt to answer this question. Think of the bargain theory as theoretical guidelines for a court to decide when a promise (contract) should be enforceable. This does not necessarily imply that courts only enforce contracts if they fit the bargain theory criteria, or that they enforce all contracts that do, but the theory is a good benchmark to get us thinking about efficient enforcement.

The lecture notes lay out and explain the theory, but remember that it says in order for a promise to be a legal contract it must be part of a bargain, and a bargain has three components:

(i) Offer

(ii) Acceptance

(iii) Consideration

I.2 Damages Part 1

All right, so contracts are promises, but only certain promises should be enforceable as contracts. Now we need to decide what enforcement mechanisms will be efficient.

One key concept that pops up throughout our contract law studies (and pretty much everything else too) is that an individual's actions can produce *externalities*. With contracts, if the promisor decides to *breach* (break) a contract, then there is the negative externality of lost benefit to the promisee. The point is that when deciding to breach, the promisor only takes into account his own costs, not the costs to the promisee, so he may breach even if total social welfare would be higher without breach. The solution is to force the promisor to *internalize* the externality, by requiring him to pay the promisee whatever expected value is lost due to the breach. This penalty is called *expectation damages*.

Expectation damages are great because they guarantee efficient breach. However, there are other dimensions of a contract that we also want to be performed efficiently, and we

I.3 Reliance

Recall that *reliance* is investments made by the promisee to improve the value of the contract (e.g. the hangar for the plane, or furniture for my new house). The main point in our analysis of reliance is that it may be efficient to have some reliance, but it's very difficult to design an enforcement mechanism that provides incentive to rely the optimal (efficient) amount. Once again the problem is externalities, which we'll discuss below.

So we've decided expectation damages are good because they give us efficient breach, but now we have the problem of figuring out if expectation damages should include reliance. Remember that expectation damages are equal to the expected benefit of a contract to the promisee. If the promisee has relied at all, then clearly the expected benefit of the contract increases to the promisee (recall the airplane and hangar example: if I don't get my plane, then the hangar isn't worth anything to me, but my plane is worth a lot more to me if I have a hangar to put it in). However, if we include reliance in expectation damages, then people will *over*-rely.

The reasoning is as follows: if I know that any dollar that I invest in reliance is going to give me my expected return with probability one (with certainty), then I will invest as if the probability of breach is zero. However, if the probability of breach is not zero (there's some probability that the contract must be broken by the promisor), then the promisor is forced to pay me for my investment, at no cost to me. Thus every dollar that I decide to invest in reliance imposes a negative externality on the promisor. Since I don't have to pay at all for that negative externality, I will over-rely.

Solution: Don't include reliance in expectation damages. If reliance is not included in expectation damages, then every dollar that I invest in reliance only gives a return if the contract is not breached. Thus I pay the total cost of any investment in reliance; I internalize the externality, so that I rely the efficient amount. But...

One problem may be that I can't accurately predict the probability of breach, so my reliance still may not be optimal. But even in a world of perfect information, excluding reliance from expectation damages affects how much the promisee invests in performance, which we'll discuss next.

I.4 Investment in Performance

Investment in performance is what the promisee does to reduce the probability of breach. For example, if I decide to pay a contractor to build me a new house the contractor can buy fire extinguishers to reduce the chance that the house burns down mid-project, or it can buy the materials ahead of time to secure prices and reduce the probability of breach due to cost increases. But these actions cost something, they aren't free. Thus, when the promisee is deciding whether or not to invest in performance, he will compare how much benefit he gets from the investment (the increased probability of successfully completing the contract and getting paid) to the cost (what the investment costs, and what the expected cost of breach will be based on the probability of breach).

What we saw in lecture was that if expectation damages include reliance, then a promisor will invest the efficient amount in performance, but if reliance is not included in expectation damages then there will be under-investment in performance.

The reasoning is just as before. If I'm the promisor, then if I don't have to pay back reliance in expectation damages, I won't take into account the fact that the promisee loses the money

invested in reliance if I breach. Thus every dollar that I *don't* invest in performance imposes a *negative* externality on the promisee (or, every dollar that I *do* invest imposes a *positive* externalty). To force me to internalize this externality, we have to include reliance in expectation damages, as the following example (from lecture) shows.

Example: You hire me to build you a plane, and I have the ability to reduce the probability of breach by investing in performance. My ability to reduce the probability of breach is described by the function: $p(z) = \frac{1}{2}e^{\frac{-z}{40000}}$, where $p(z)$ is the probability of breach, and z is the amount in dollars that I invest in performance. Your expected payoff from the plane is \$150,000, but on top of that you've built a hangar (this is an example of reliance) that will give you a return of \$180,000 if you get the plane. My payoff from the contract is \$100,000 minus however much I decide to invest in performance, but if I breach I have to pay some damages D.

Point: We haven't decided what D should be. We're going to solve this problem to figure out what D has to be so that I have the incentive to invest the efficient amount in performance.

Efficiency requires that social welfare is maximized. With probability $p(z)$ the contract is broken, so I must pay you damages D, but that is a transfer and has no effect on efficiency. With probability $(1 - p(z))$ we get a combined payoff of $150000 + 180000 + 100000 = 430000$. And for sure I have to pay z (I choose what z to pay, but I spend it before the realization of breach/no breach). Thus, social utility is:

$$U = (1 - p(z))(430000) - z$$

So, we figure out the optimal z by taking first order conditions. Note that:

$$p'(z) = -\frac{1}{2}\frac{1}{40000}e^{\frac{-z}{40000}} = -\frac{1}{40000}p(z)$$

So,

$$U(z) = 430000 - 430000p(z) - z \Rightarrow U'(z) = -430000p'(z) - 1 = \frac{430000}{40000}p(z) - 1$$

Set this equal to zero to see the optimal z is such that $p(z) = \frac{40000}{430000}$

When I decide how much to invest in performance, I don't care at all that you've relied. All I care about is that if I breach I'll have to pay D. So my utility is $u(z) = (1 - p(z))(100000) + p(z)(-D) - z$, since if I breach I pay D, and if I don't I get \$100000, and in either case I pay z. So I take first order conditions to get:

$$u'(z) = -100000p'(z) - Dp'(z) - 1 = -p'(z)(100000 + D) - 1 = \frac{100000 + D}{40000}p(z) - 1 = 0$$

$$\Rightarrow p(z) = \frac{40000}{100000 + D}$$

Take a look at the efficient $p(z) = \frac{40000}{430000}$ versus the $p(z) = \frac{40000}{100000+D}$ that I choose. In order to get me to invest the optimal z, we must have $D = \$330,000$, which is *exactly* what expectation damages are if we include reliance! Thus we need to include reliance in expectation damages if we want efficient investment in performance, but we've already seen that this will result in over-reliance. What to do?

Solutions: One solution is to only include efficient reliance in expectation damages. This probably isn't feasible. To implement this rule a court would have to determine the probability of breach and the expected benefit of all reliance to the promisee, which would be difficult.

Another solution was"anti-insurance," where individuals in a contract would sell the right to capture the difference between expectation damages with and without reliance. This is also unlikely, since it would be difficult to establish a healthy market for "anti-insuarance" (but there are some pretty strange markets out there, so maybe this isn't so unbelievable).

I.5 Damages Part 2

We've seen that expectation damages are good because they promote efficient breach, but they still may not promote efficiency in other areas. There are two other kinds of damages that we mentioned in lecture: opportunity cost damages and reliance damages. Opportunity cost damages are designed to make individuals indifferent between breach of contract and their next best option, and reliance damages are designed to bring individuals back to their initial state of wealth before the contract. Based on these definitions we can see that:

$$\text{expectation damages} \geq \text{opportunity cost damages} \geq \text{reliance damages}$$

Keep the picture of the indifference curves in the hairy-hand case in your head. If a rational economic agent chooses to take part in a contract, then it must be that the utility reached from that contract is higher than any other contract available. More specifically, the expected utility from the chosen contract must be greater than the utility reached from not taking part in the contract, and it must be higher then the next best contract. In the hairy-hand case you can see very clearly that expectation damages will be the largest of the three types of damages, since the only axis that we can compensate the man with the hairy hand is the money access, and in order to get him to his highest indifference curve it takes more money.

I.6 One last math note

We decided in lecture that the 6th role of contract law is to promote enduring relationships. We motivated this by examining an investment game played over multiple periods. In the game, player A gives player B some money, and player B invests it. The investment gives a return with 90% probability, and once the return is realized player B can return some of the money to player A or steal the money and run away. The payoff of running away is a one time payment of \$200, and if player B sticks to the contract he gets \$50 every period that the there is positive return. We decided that if the present value of \$50 now until forever is greater than \$200, then it's a subgame perfect equilibrium for B to cooperate. Let $X =$ the presents value of getting \$50 today and forever. Then:

$$X = 50 + .9(50) + .9^2(50) + .9^3(50) + \ldots = 50 + .9(50 + .9(50) + .9^2(50) + .9^3(50) + \ldots) = 50 + .9X$$

$$\Rightarrow X - .9X = 50$$

$$\Rightarrow .1X = 50$$

$$\Rightarrow X = \$500$$

Just a reminder on how to do this type pf geometric infinite sum.

I.7 Default Rules

The point of default rules is that transaction costs are too high to include every possible scenario, detail, contingency, etc. that could be included in a contract. For example, if I hire you to paint my house, and we write a contract, it may not seem worth it to stipulate what will happen if a tornado comes and destroys my house, or what happens if it rains, or what happens if it rains for three weeks then is sunny for two days then rains again, or ... You cant include everything; its just not possible. Whatever isnt included in the contract is called a *gap*, and *default rules* are rules that the court uses to fill these gaps. Its quite possible (likely) that a gap wont need to be filled: there probably wont be a tornado. But if the gap does need to be filled, courts fill them "by default with the default rules (hence the name). You can think of the court as having some ultimate contract that has no gaps that they refer to whenever a case comes before them because of a gap in a contract. The court simply takes the default rule and plugs the hole.

All right, then how do the courts design default rules? One way is to establish *efficient default rules*. The thought process is this: Suppose there is a gap in a contract and whatever wasnt included in the contract ends up occurring (e.g. the tornado comes and destroys my house). The efficient default rule is the rule that the contracting parties *would have* written into their contract if they had filled the gap *before* the realization of the event. This is efficient, since the rule that two parties would agree upon must be efficient (if there were gains from some other rule then they would renegotiate the contract to collect the surplus). This seems reasonable, but we also saw that sometimes we want an inefficient rule ...

Penalty default rules are default rules that penalize individuals for not filling gaps in contracts, and thus are purposefully *inefficient ex post* (or at least *not always efficient* ex post). However, these rules can be efficient *ex ante* because they give contracting parties incentive to fill gaps in contracts. Refer to the home-selling example from lecture. When people sell houses they often hire a realtor. The reason they do this is because the real estate market is complicated, and a realtor has expertise in this area. When a buyer puts up an offer for the house, that buyer pays a deposit called "earnest money as collateral, and they lose that deposit if they back out of the deal. A contract with a realtor should stipulate who gets that earnest money in case the buyer backs out. If the contract doesnt say anything, then that is a gap. If its efficient for the realtor to get that money, then that is what the efficient default rule should be, but if its efficient for the seller to get that money, then that is the efficient default rule. It may be difficult (impossible) for a court to decide which is the efficient outcome, so instead the court can use a penalty default rule to force the parties to fill the gap initially. The penalty default may be that the seller always gets the money, regardless if its efficient or not. Then, since the realtor knows the market and the rules (including the default rules), if its efficient for the realtor to get the earnest money, the two sides can negotiate and write a different rule to fill the gap. Note: If the penalty default were that the realtor always gets the

earnest money, chances are the first time home-seller does not know this. So even if its efficient for the seller to get the earnest money, a gap will be left in the contract since the realtor has no incentive to fill that gap, and the seller doesnt realize there is a gap.

This brings us to our last point about default rules: When gaps are left in contracts because then transaction costs of filling them are too high, then efficient default rules work well. When gaps are left due to asymmetric information, penalty default rules work well.

Important: default rules can be negotiated around. Default rules are only implemented if theres a gap, but contracting parties are allowed to fill gaps in ways different from the default rule (in fact, you probably only want to fill a gap if your way of dealing with it is different from the default rule, since theres always some cost of filling it). You cannot, however, write contracts that derogate public policy (i.e. you cant write a contract that breaks the law).

I.8 Some thoughts on "Dire Constraints and other ways to back out of a contract

We saw that there are different ways to set up damages in case of breach, but sometimes we want contracts to simply be annulled, with no penalties for anyone. Recall that there are two main classes of excuses that are reasonable to void a contract: Formation Defenses (we never had a valid contract) and Performance Defenses (things have changed). The main formation defenses that we examined were the "dire constraint examples: you cannot form a valid contract with someone under duress or in a situation of necessity. We decided that the "under duress example was pretty straightforward, since, even though at the time of a contract both parties may want the contract enforceable and thus it must be efficient, we dont want to promote crime. We had a tougher time showing the necessity example made sense. However, we also pointed out that many contracts are formed under some sort of duress (e.g. "give me a raise or I quit), and we decided that duress is OK as long as the threat is to not create new value, rather then destroy already existing value (e.g. "give me a raise or I destroy all of the office computers is not OK). One way to think about necessity situations is that if youre negotiating with someone who really *needs* something, then youre implicitly threatening to destroy value. Also, someone really in need is probably not at their most rational or competent state of mind.

Last note: Take a look at the performance defense list. We decided that bilateral mistake may be a reason to void a contract, but unilateral mistake often is not. Thus, if I know that a car Im buying from you is an antique and you dont, and I subsequently buy the car at a very low price, thats a valid contract. This "unites knowledge with control, and gives people incentive to collect information. Presumably I get more value from the car then you do, and Ill be able to use it more efficiently, thus the deal is a net increase in social welfare. However, we also decided that one of the roles of contract law is to promote disclosure of information, which would seem to imply that unilateral mistake should be grounds to void a contract. So, sometimes the rules are set up to protect the uninformed, and sometimes they arent.