Law And Economics

Contract Law II

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Efficient Breach

When is efficient to breach an enforceable contract?

- Unforeseen changes can render the contract inefficient.
- Ideal contract law should generate incentives for parties to breach contracts only when it is efficient to do so.

Reasons for Efficient Breach

- Reasons for efficient breach:
  - Realized high cost of promise keeping (Hold-up model from before)
  - Realized low value.
  - Third party that values more.
  - Third party that can produce cheaper.

Efficient Breach Model

The Efficient Breach Model

- In this model, we focus on uncertainty about costs.
  - Value for Buyer V (deterministic).
  - Cost for Seller C (random variable).

- Timing:
  - Parties contract: decide a price P.
  - **Reliance**: Buyer makes investment R that is not *salvageable*.
  - C is realized and publicly observable.
  - Seller decides if goes ahead with production ($a = 1$) or not ($a = 0$).

Goal

- Let ψ be the damages that the seller must pay in the event of breach.

$$\begin{aligned} \text{Seller:} \quad & a(P-C)-(1-a)\psi \\ \text{Buyer:} \quad & a(V-P)+(1-a)\psi-R \\ \text{Society:} \quad & a(V-C)-R \end{aligned}$$

- **Goal**: determine the value of ψ that induces the seller to breach efficiently.
  - Only efficient to breach when $C > V$.
- What can ψ depend on? C, P.

Seller's Decision

- The seller will choose to breach ($a = 0$) when:

$$P - C < -\psi \qquad \Rightarrow \qquad \underbrace{C}_{\text{cost of perform}} > \underbrace{P + \psi}_{\text{cost of breach}}$$

Trivial Implementation

- The seller is *"killed"* if she breaches inefficiently.

$$\psi = \begin{cases} \infty & C < V \\ 0 & C \geq V. \end{cases}$$

- Efficiency is achieved!
- Issue: Depends on C.
  - Might be unobservable.
  - Seller might inflate costs.

Damages in Practice

- **Expectation damages**: ψ leaves the promisee as well of as if the contract had been performed.

$$\underbrace{V - P - R}_{\text{contract performed}} = \underbrace{\psi - R}_{\text{breach}} \qquad \Rightarrow \qquad \psi^{ED} = V - P$$

- **Reliance damages**: ψ that leaves the promisee as well of as if contract was never made.

$$\underbrace{\psi - R}_{breach} = \underbrace{0}_{nocontract} \qquad \Rightarrow \qquad \psi^{R} = R$$

No Damages

$\psi^{ND} = 0$.

- Seller chooses breach ($a = 0$) iff

$$C > P + \psi^{ND} \qquad \Rightarrow \qquad C > P$$

- Efficiency is, in general, not achieved.
  - $P \leq V$. Why?
  - Whenever breach is efficient, the seller will breach.
  - Seller does breach inefficiently often.

Expectation Damages

$\psi^{ED} = V - P.$

- Seller chooses breach ($a = 0$) iff

$$C > P + \psi^{ED} \qquad \Rightarrow \qquad C > P + V - P = V$$

- Efficiency is achieved!
- Rule does not depend on C.

Reliance Damages

$\psi^R = R$.

- Seller chooses breach ($a = 0$) iff

$$C > P + \psi^R \qquad \Rightarrow \qquad C > P + R$$

- Efficiency is, in general, not achieved.
- $P + R \leq V$. Why?
- Whenever breach is efficient, the seller will breach.
- The Seller does breach inefficiently often (although less than with no damages).
- Rule does not depend on C or V.

Incentives for Efficient Reliance

- Value V depends on the *level* of Reliance.
  - Value for Buyer $V(R)$ (deterministic concave function).
  - Cost for Seller C (random variable cdf F).

- Timing:
  - Parties contract: decide a price P.
  - **Reliance**: Buyer makes investment R that is not *salvageable*.
  - C is realized and publicly observable.
  - Seller decides if goes ahead with production ($a = 1$) or not ($a = 0$).

Buyer's Decision

- If performance was certain:

$$\max_{R} \quad V(R) - P - R$$

- $V'(R) = 1$.

- When perfomance is uncertain (Probability p), the Buyer's investment is lower.

$$\max_{R} \quad p[V(R) - P] - R$$

- $V'(R) = 1/p$.

Efficient Reliance

- Efficient decisions:

$$a^* = 1_{\{C \leq V\}} \qquad R^* = \frac{1}{F(V)}$$

- Would Expectation Damages achieve efficiency in this case?

(Unlimited) Expectation Damages

$\psi^{ED} = V(R) - P$

- Assume efficient breach, so $p = F(V)$. Buyer's decision:

$$\max_R \quad F(V)[V(R) - P] + (1 - F(V))[\underbrace{\psi^{ED}}_{V(R)-P}] - R$$

- Solution: $\hat{R}$.
- There is over-investment in reliance.

Limited Expectation Damages

$\psi^{LED} = V(R^*) - P$

- Again, we assume efficient breach, so $p = F(V)$. Buyer's decision:

$$\max_R \quad F(V)[V(R) - P] + (1 - F(V))[\underbrace{\psi^{LED}}_{V(R^*)-P}] - R$$

- It achieves efficiency!
  - It does not depend on R.
  - It does depend on R^*, so implementation requires knowing something about distribution of costs $F(V)$.

Extensions and Discussion