

## Contractual Problems

- Specific Investments
- The Role of Contracts
- Strategies when Contracts are Weak

## Contractual Problems

- Specific Investments
  - The “Fundamental Transformation”
  - Renegotiation
  - The Hold-up problem

## The “Fundamental Transformation”

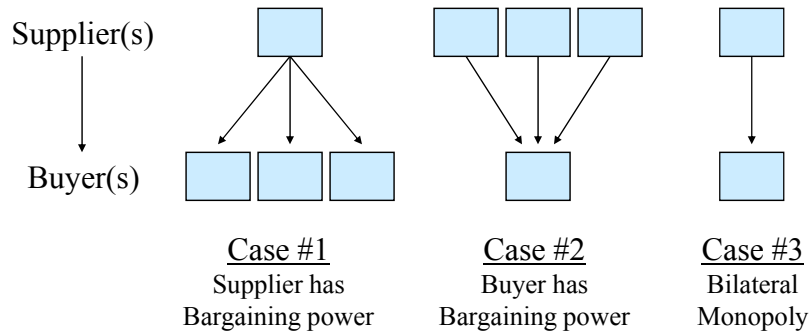
- *Bargaining outcomes* depend on outside options
  - The better your outside options, the better your bargaining outcome in the relationship at hand
- *Specific investments* reduce your outside options
  - A specific investment is an investment that has a particular use to one party, and less use to others
- The “*fundamental transformation*”
  - Prior to making a specific investment, a party may have many options and a strong bargaining position
  - After making a specific investment, a party may have very few outside options and a weak bargaining position

## An Example

- I offer \$5 in cash to the highest bidder
  - \$5 is worth the same thing to everyone; namely, \$5
  - It is the ultimate non-specific investment
  - The highest bidder should be willing to pay \$5
- I buy a \$5 cashier’s check and put someone else’s name on it
  - Check is worth \$5 to that person, \$0 to everyone else, including myself
  - My \$5 has become an entirely *specific investment*
  - I would be willing to accept a payment less than \$5
  - By putting someone’s name on the check, I’ve made the *fundamental transformation* and hurt my outcome
- Lesson: Specific investments create a unique counterparty and worsen your bargaining position

## Bargaining Power

- The fundamental transformation tends to create monopoly power for one or both parties
- Being the unique counterparty means you can extract profits



## Types of Specific Investments

- Site specific investments
  - A roadway in Bangkok
  - New coal mine to feed neighboring electricity plant
  - Infrastructure investment in general
- Process specific investments
  - Aluminum smelter tailored to bauxite in particular mine
  - Specialized machinery in general
- Specific investments in human capital
  - Learning firm-specific computer programs
  - Training on any tasks that have little use outside firm

### Example: A Power Generation Project

- The investment opportunity
  - InterGen can make a *specific investment* of \$200M in power plant in the Philippines
  - LEC is the intended buyer for the electricity, which it will resell to consumers and earn \$300M
  - Total profit in project is  $\$300M - \$200M = \$100M$
- An initial agreement
  - Parties decide how to split the \$100M in expected profit
  - Agree that LEC will pay InterGen \$250M
  - Each party will earn \$50M in profit

### Understanding the Initial Negotiation

- Two elements to deciding result of a negotiation
  - Income at stake
  - Bargaining power
- Income at stake (initially)
  - \$100M to bargain over
  - Each party walks away unless they receive at least \$0M
- Bargaining power
  - LEC may see many construction companies willing to bid, and each construction company may be considering many projects to bid on, so assume equal bargaining power
  - Let outcome of initial negotiation be for InterGen and LEC to each get \$50M

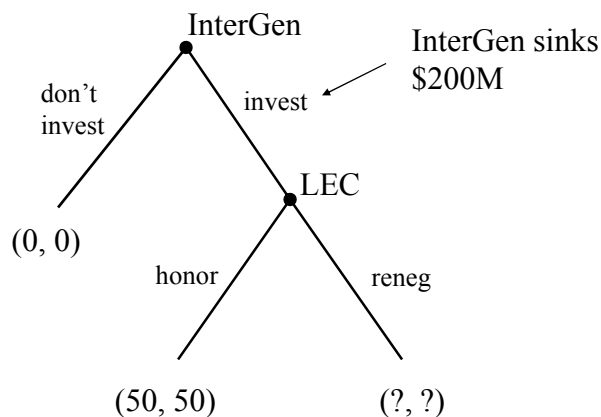
## Understanding the Renegotiation

- Once InterGen has built the power plant, we have undergone the *fundamental transformation*: now parties are in a bilateral monopoly
  - Only one buyer of electricity (LEC)
  - Only one supplier of electricity (InterGen)
- How much income remains to be realized from the project?

Future Income = \$300M

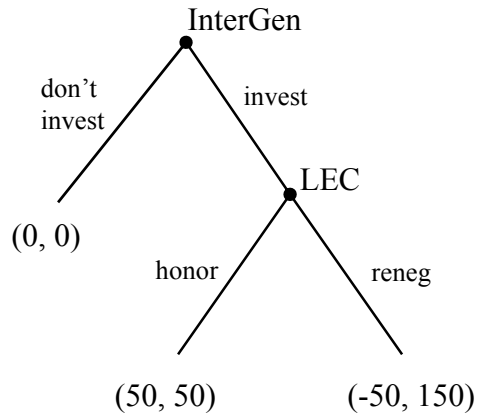
- Earlier “agreement” is irrelevant
- A new bargaining game
  - Income at stake is \$300M
  - Bargaining power decides outcome

## What will LEC do if InterGen Invests?



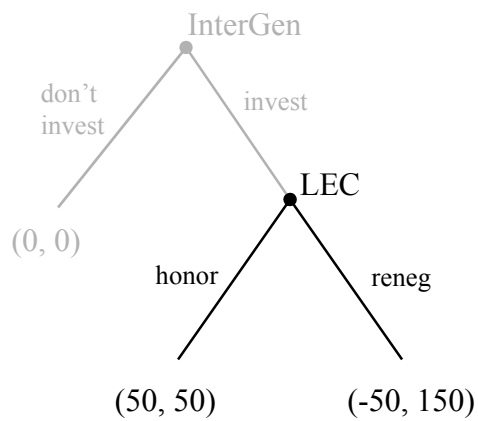
- If renegotiate, InterGen will accept no less than \$0M and LEC will pay no more than \$300M

### What will LEC do if InterGen Invests?



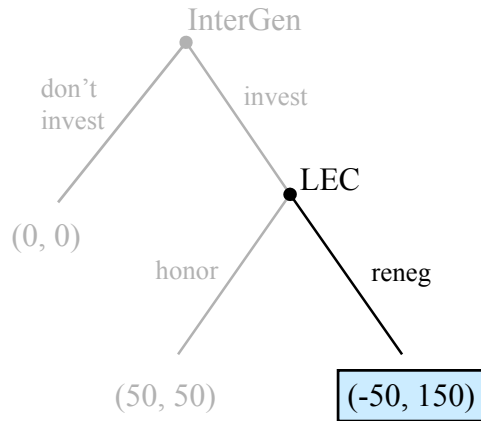
- Assume they will split the difference: InterGen accepts payment halfway between \$0M and \$300M, or \$150M

### LEC's Decision

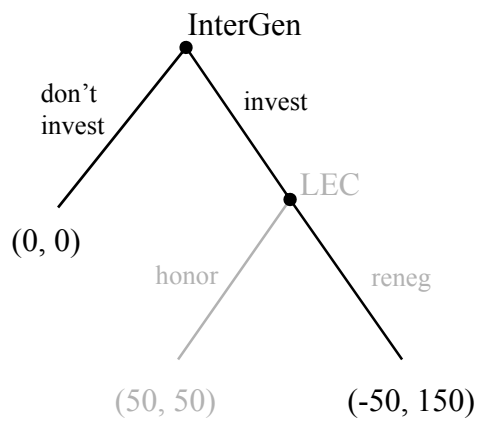


- If LEC renegotiates it gets \$150M
- If LEC honors original contract, it gets \$50M

### LEC will renegotiate

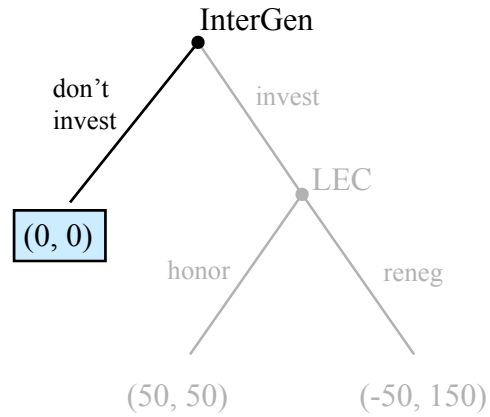


### InterGen's Decision



- If InterGen invests, it gets  $-\$50M$
- If InterGen does not invest, it gets  $\$0M$

## InterGen will not Invest



## The Hold-up Problem

- InterGen's fear of renegotiation results in no investment taking place
- Yet investment is profitable: \$100 million in potential profits to be split by parties
- The *hold-up* problem
  - Naïve managers are taken advantage of?
  - Or profitable ventures do not occur
  - Private investors miss out on opportunities
  - Nations miss out on development opportunities
- How can this problem be solved?

## Contractual Problems

- Specific Investments
- **The Role of Contracts**
- Strategies when Contracts are Weak

## The Role of Contracts

- The value of contracts
  - Contracts can specify terms of relationship between parties *before* the specific investment is made
  - Contracts in principle prevent renegotiation and solve hold-up problem
- Caveat #1: Can a contract be written?
  - Complex situations may prevent complete contracts from being written, leaving significant room for renegotiation
- Caveat #2: Can a contract be enforced?
  - Contracts are only as useful as they are enforceable
  - Nations with weak market institutions typically do not enforce contracts strongly

## Evidence on Contract Enforceability

- Data Source: *World Business Environment Survey*  
(World Bank data)
- Survey of managers' perceptions in 81 countries
  - Enforceability of contracts
  - Confidence in legal system to resolve disputes fairly
  - Consistency of legal system in resolving disputes
- Per-capita income strongly correlated with quality of courts.  
A doubling of per-capita income is associated with:

17% ↑ in Enforceability

17 % ↑ in Confidence

18% ↑ in Consistency

## Example: Origion

- “A baffling trip through China’s arbitration system”
- Origion invests in China
  - Investment group interested in Chinese retail market;  
“Sank \$10 million” in renovating indoor mall
  - City government shuts building down for lack of a commercial license / building safety issues
  - Origion blames local partner for failure to get license
- Dispute resolution
  - Parties try Chinese arbitration system
  - Evidence of political interference, and arbitration court eventually refuses to rule
  - Origion forced to pay arbitration fees

## Example: Thai Roadway

- “Thais make a mess of their muddling”



## Example: Thai Roadway

- BECL signs contract to build and operate highway in Bangkok
  - Kumagai Gumi, a Japanese firm, is major partner
  - Builds elevated expressway (\$1 billion project)
  - Specified in contract that BECL to earn 30 Baht toll per car
  - Government decides 30 Baht toll will be unpopular
  - After 20km built, govt. announces charge will be 20 Baht
- Dispute resolution
  - Can you take a sovereign nation to court?
  - BECL brings international pressure
  - Damage to Thailand's reputation
  - Unhappy partners in BECL eventually bought out
  - Kumagai said to break even at best on five-year project

## Contractual Problems

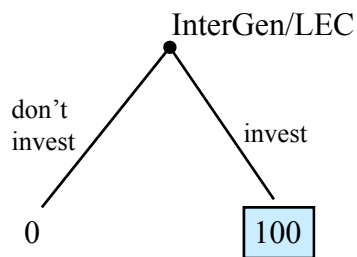
- Specific Investments
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- **Strategies when Contracts are Weak**

## Contractual Problems

- Strategies when Contracts are Weak
  - Integration
  - Reputation concerns
  - Technological tricks
  - Leverage creation

## Integration

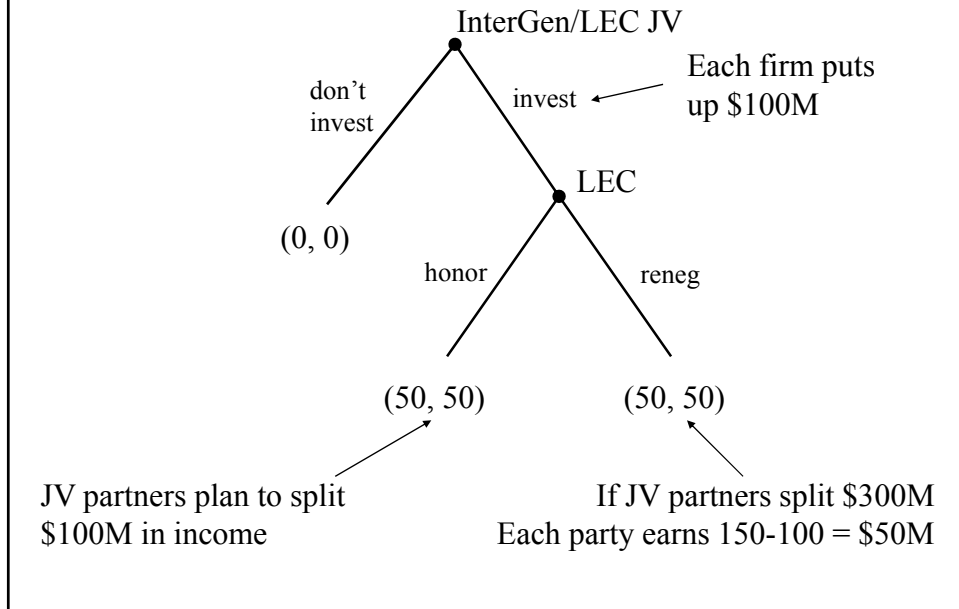
- Expand firm boundaries to incorporate both parties
- If InterGen buys LEC, then hold-up becomes impossible
  - All profits accrue to new, larger firm
  - No motive to negotiate/renegotiate how income is split
  - Contracts become unnecessary



## Partial Integration

- Corporations might form *joint venture* instead of fully integrating. Does this solve hold-up problem?
- Profit-sharing JV
  - LEC and InterGen create JV with each parent company receiving a 50% stake in project income
  - Will JV stay together once InterGen parent company has sunk \$200 million in power plant?
  - This JV is just a contract: Planned sharing of *future* profits does not solve fundamental hold-up problem
- Investment-sharing JV
  - LEC and InterGen each invest \$100M
  - Neither party has incentive to renegotiate ex-post

## Partial Integration

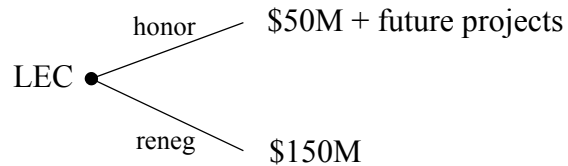


## Reputation

- Willingness of partners to make relation-specific investments will depend on the *reputation* of the counterparty
  - Many business interactions are *repeated*
  - Parties won't take advantage of partner if the short-term gain is outweighed by long-term losses
  - Contracts may be unnecessary when reputation counts
- A reputation game
  - LEC would like InterGen to build a large number of power plants all over Luzon
  - InterGen will refuse to participate in all future projects if LEC renegotiates any contract
  - How many projects must lie ahead for InterGen to be willing to build a plant?

## Reputation

- Consider counterparty's incentives



- Assessing the importance of reputation to your counterparty
  - Is counterparty interested in future business from you?
  - Are they interested in future business from anyone?
  - Can you credibly threaten not to do future business with them?
  - Can you successfully impugn their reputation publicly?

## Reputation & Jurisdiction Choice

- The jurisdiction for dispute resolution is often written into a contract
- If local environment does not provide a strong legal system, parties can agree in contract to resolve disputes in London, New York, etc.
- This strategy only works if parties care about their reputation in the jurisdiction chosen
  - Local businesses may not care about international reputations
  - Choose jurisdiction that will maximize bargaining power in case of dispute

## Technological Tricks

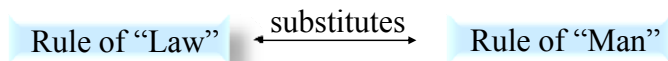
- Trick #1: Make investment less specific
  - The more your investment is worth in its next best use, the harder it is for counterparty to hold you up
  - Examples:
    - Electricity barges – solve site specificity
    - Design machinery to have general uses
    - Avoid firm-specific software that workers won't want to train on
- Trick #2: Make investment multi-stage
  - Create repeated game
  - Reputation becomes important
  - Example: InterGen sequentially builds 3 small plants instead of 1 large plant

## Example: A Power Plant in the Philippines



## Create Political Leverage

- Enforceable contracts are essentially a way to increase bargaining power
- There are many *substitute* ways parties increase bargaining power if contracts can't be written and/or enforced
- Political leverage



- Foreign entrant can actively create political connections to guard against renegotiation
  - Origon: Arbitration outcome apparently determined by relative strength of disputants' political connections
  - BECL: What if counterparty is the government itself?

END