

LAW AND ECONOMICS

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Week 3

Acquisition of property

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Structure of the week

- I. Acquisition: receiving titles – overview
- II. Original acquisition
 1. First possession
 2. Loss and recovery
 3. Adverse possession
- III. Transfer from non-owner
- IV. Sale
- V. Inheritance

I. Acquisition: receiving titles – legal concepts

- Original acquisition
 - Independent from the rights of former owner (and other right holders) – e.g. bidding.
 - Clear, full property rights created.
- Derivative acquisition
 - From former owner.
 - Only the rights of former owner transferred.

II. Original titles

1. First possession
2. Loss and recovery
3. Adverse possession

+1 Transfer from non-owner

II.1. First possession

- Two forms in law: property right of the *object* vs. the *flow of income* (Now: only of objects!)
- Incentives? –
 - Searching, speed => resources used for search
- Efficiency:
 - Cost of searching $c(x)$, vs. expected value of the object (innovation) $p(x)V$, where $P'(x) > 0$, $p''(x) < 0$
 - When are property rights created (Demsetz thesis)? When social benefit is highest:

$$V^{SB} = \int_{t^s}^{\infty} [R(x^*(t))e^{-(r-g)t} dt] - Ce^{-rt^s}$$

- IMPORTANT assumption: increase in net revenue (without extra investment) :
 $g < r$ (for example: increase in demand, reduction in cost of protection)
- Optimal timing:

$$R^* e^{-(r-g)t} = rCe^{-rt^s}$$

- When the cost of waiting (the unrealized revenue in a year) = present value of the opportunity cost of creating property rights
- ASSUMPTION: homogenous players

II.1. First possession: single potential finder

- All social costs and benefits are private
 - Private benefits: $\max_x PB = p(x)v - c(x)$
 - Same as social benefits and costs
- All costs and benefits are private – optimal timing

II.1. First possession: many potential finders

- Private chance reduces the chances of others.
- Increase in private chance is higher than overall (social) increase in chance => supraoptimal investment

How many searchers?

The chance of success is the same for all: $p(n) \quad p'(n) < 0$

Social optimum:

$$\max_n SB = np(n)v - nc \Rightarrow n^* : c = p(n)v + np'(n)v$$

Private choice: how large a group shall I join? :

$$n^{**} : c = p(n)v$$

$$n^{**} > n^* \quad , \text{ because } \quad p(n^*)v = c - n^* p'(n^*)v > c$$

II.1. First possession wasteful competition

When? Present value of total expected income flow = present value of cost of acquisition

$$\int_{t^*}^{\infty} [R(x^*(t))e^{-(r-g)t} dt] = Ce^{-rt^*}$$

If we wait longer, someone else will acquire (since there is net revenue)
Result: the value of asset is reduced to zero because of too early acquisition

II.1. First possession: solutions

- Private solutions (Demsetz thesis)
 - Dividing search area – monopoly for searching (private chance DOES NOT reduce the chances of others),
 - cooperation,
 - information-sharing.
- Government
 - Reducing private benefit – taxation,
 - regulation of searching activities (permissions, constraining methods, timing, etc. – e.g. fishing number of permissions, location, techniques, time),
 - monopoly for searching (oil franchises).

II.2. Loss and recovery

- Two clear rules: original ownership vs. finder-keeper
- Incentives? Searching (as first possession) + prevention
- Differences between social and private benefits and costs:
 - If others find it, private loss, but not social loss (difference in incentive to protect)
- Efficiency: social optimum:

$$\min_{y,x} SB = y + q(y)[x + (1 - p(x))v]$$

- Backward induction:
1st step – optimum in search:

$$\min_x SB(x) = x + (1 - p(x))v \quad x^* : p'(x)v = 1$$

- 2nd step – optimum in protection:

$$y^* : -q'(y)[x^* + (1 - p(x^*))v] = 1$$

- Private optimum of protection

$$\min_{y,x_i} PB = y + q(y)[x_i + (1 - p(x_i))v] \quad y^{**} : -q'(y)[x_i^* + (1 - p(x_i^*))v] = 1$$

- Social optimum:

$$p'(x^*)v = 1$$

from which

$$y^* < y^{**}$$

- *Original owner has a good chance to find*
 - Original owner rule: private benefit, cost = social benefit, cost
no supraoptimal search,
no supraoptimal protection.
 - Finder-keeper rule: supraoptimal incentives,
(i.e. first possession in case of single potential finder).
- *Original owner has NO good chance*
 - Original owner rule: supraoptimal incentives for searching.

- Finder-keeper rule: supraoptimal protection + optimal (single potential finder) or supraoptimal (many potential finders) search.
- Additional rules:
 - Mandatory reward for finder – how much? (trade-off: search vs. protection)
 - Trespasser – no right to keep (i.e. good chance... + property rights)
 - Abandoned: no chance... + little value for original owner
 - Discovered by chance: no incentive effects
 - Finding the original owner: incentive for labeling
 - Cost of guarding
 - Administration cost of original owner rule – enforcement (if no witness)
- Hungarian law: mandatory report – no clear meaning
 - E.g. Where? place of finding vs. place of residence
 - Administration cost (control)

II.3. Adverse possession

- Use of others' property
 - a) 10-15 years,
 - b) publicly,
 - c) in good faith (Hungarian law: „possessed as own” – BUT bad faith is excluded: violence, fraud)

Typical: invalid contract (e.g. oral contract for sale of real property)
- *Basic arguments:*
 - Using unused resources (e.g. abandoned property in Roman civil war, unused property of Indians) – BUT not using may be a long term investment (i.e. protecting the environment).
 - Safety of sales (transactions) – if you possess, you own (no need to search back for more than 15 years).
- Transaction costs:
 - Why adverse possession – why not purchase? If I know it is not mine – searching the owner (?)
 - Supraoptimal protection – incentive to use empty property, perhaps owner will not learn – adverse possession is successful.

II.3. Adverse possession: investment decisions

$$\max_x PB = (1 - p(t))[V(x) - m(t)] - x \quad x^* : (1 - p(t))V'(x) = 1$$

t – length of required period for adverse possession,

$p(t)$ – chance that original owner will appear,

$m(t)$ – the cost of control for the owner.

$$\frac{\partial x^*}{\partial t} = \frac{p' V'}{1 - p V''}$$

Optimum: $\max_t SB = V(x^*(t)) - m(t) - x^*(t)$

from which: $p(t)V'(x)\frac{\partial x^*}{\partial t} = m'(t)$

l. h.s.: reduction in investment...

r. h.s.: changes in cost of control because of a longer required period

III. Acquisition from non-owner (original acquisition)

- Bona fide (protection of buyer in good faith) vs. original owner rule
- Hungarian:
 - „bone fide” – in commercial sale or if owner gives the property to the seller
 - original owner – outside commerce
- Incentives: who protects against the theft?
- Risk allocation: who bears the risk of theft? (both?)

- Bona fide:
 - Weak against *theft*: only if the thief is caught in action + price is not reduced.

- Burden of proof on original owner – the seller (should) have known about the theft.
- Safety of transactions – BUT weak disincentive effect: the buyer will not spend a lot to find out whether there was theft or not (chance of theft is low; chance of finding by the original owner is low)
- Labeling (by original owner)– BUT: no labeling anyway: fixed cost; low expected benefit (i.e. chance of recovery).
- Is bona fide necessary? Who examines it?

IV. Transfer of property: sale

- Delivery vs. consensual system: transfer of title when?
 - Good is received (upon delivery).
 - Agreement is reached (or at a point defined in contract) (consensual).
- Why delivery system?
 - Principle of publicity: third party knows who is the owner (?) – vs. other contracts (e.g. leasing back)
 - Risk-bearing (possessor bears the risk) – ownership of future objects (e.g. in case of a production contract – when it is produced or when it is delivered).

V. Transfer of property: inheritance

- Why not gift? (pleasure in the lifetime of settlor)
 - Lack of information – not exact information on future needs or worthiness.
 - Risk – no information about length of life, heritage = unable to consume during lifetime (residual) => annuity? BUT it reduces opportunities (income instead of asset – less flexible) + difference in taxation.
 - Life insurance? – if principle of equivalence.
 - Control over heirs – why not reward (Christmas gift, reward for graduation, etc.)?
 - Taxation – more advantageous? (vs. sale).

- Will: change – changes in circumstances (unforeseeable changes! – otherwise conditional will) + unalterable (doubt in own future deliberation).
- Enforcement? Dead hand rule
 - Problem: if not, reduced incentives for work, savings, etc.
 - Fairness: elite survives.
 - Heir without inheritance – government must provide => mandatory part.
 - Bounded rationality (paternalism).
 - Future changes (dead hand)? – BUT does the testator consider them? (e.g. conditional will – if heir will have a child)
 - New (unforeseeable) opportunity for fulfilling the will – no transaction (which he would prefer if...).
 - External effect / against public interest – discrimination
 - Distributive motives – among generations (current, future): enforcement = protecting current, weakening future generations (???)

Practice

Revision

- What incentives in case of...?
 - ...first possession?
 - ...loss and recovery?
 - ...adverse possession?
 - ...transfer from non-owner?
- What is wasteful competition?
 - Too many
 - Too early

Problem

The owner of a forest and a timber-merchant strike a deal about the sale of a given quantity of timber. Their agreement states that the owner must cut down the trees by a certain date and then leave them in the forest until the merchant ships them off.

The merchant intends to take the timber a week after the cutting down of trees.

However, it turns out that the police have (mistakenly) sequestered the timber.

The merchant asks that the forest owner nevertheless provide him with the agreed upon quantity of timber (i.e. cut down the same number of trees once more).

Is it efficient if the court enforces the merchant's request?

Solution

- Basic problem: delivery of consensual system
- Who is the owner? Who bears the risk?
- Least-cost risk-bearer (1st week)
- Why forbid regulation by contract?
- Transaction (contractual) cost; bounded rationality vs. entrepreneurs: higher standards required.

Problem

In Hungary, all raw materials under the surface of the earth belong to the state rather than the owner of the land on the surface. Exploration and mining require permissions from the state.

If the state provides a permission, the owner of the surface must tolerate the mining activity on his land. However, the miner must restore the land in its original state and return it to the land owner when the mining is finished.

Would it be an efficient rule to assign ownership rights to subsurface materials to the surface owner and thus entitle him to make decisions about mining?

Solution

- Alternative? BARGAINING
- Transaction (bargaining) costs
- Potential hold-up problem
- Problems in evaluation: value of mining vs. value of current property
- Public choice explanations: lobby for mining (or lobby of current owners).

Problem

A dog is lost. Its owner announces that the finder will receive a prize of 100 000 Forints.

The finder returns the dog but is unaware of the prize. When the owner realises this, he pays the finder 10 000 Forints only. However, the finder soon notices the announcement, and demands the missing 90 000 Forints.

Is it a good idea (is it efficient) to oblige the owner to pay the full prize?

Solution

- Basic problem: division of rent – finder's willingness to accept vs. original owner's willingness to pay.
- Rent has NO incentive effect in case of discovery by chance.
- Enforcement: incentive for search
- If not, increase the chance (and the amount) of reward
 - Professional finder (investment!) knows and demands.
 - The payoffs of professional finders increase.

Problem

Assume that

the assignment of (ownership rights to) internet domain names is regulated as follows:

- a) one must request a given domain name;
- b) the request is made public in a database;
- c) if nobody turns up in a given period (of a few weeks) requesting the same name, then

the domain name is awarded to the person who initially requested it.

Some propose that a fourth step should be added to the procedure:

- d. if the owner of the domain name does not start to use it within a year, he should lose the right, which could then be re-assigned to anyone else requesting it.

What would be the consequences if this procedural step was added?

Solution

- Basic problem: incentives under the rule of first possession
- Constraining wasteful competition
- Constraining monopoly power