

# Refusal to License: A Transaction Approach

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# Overview and Roadmap

- Voluntary licensing – Market for technology
- IP versus other types of property: A transaction based perspective
- Refusal to license as “disproportionate leverage” – towards a cost-benefit framework

# Market for technology

- Increasing licensing and tech trade in 1990s
  - Active or emerging tech markets in chemical processes, Biotechnology, Semiconductors
- Estimated size of market for technology
  - \$50 billion per year (royalty flows)
  - \$20-35 billion per year (licensing plus R&D)
  - 10-15% of civilian R&D
- Crisp and strong IPR facilitate market for tech.
- Market for technology make pricing of tech easier

# IPR are like other property rights

- Traded in markets (albeit imperfect ones).  
Therefore, pricing difficult but not impossible.
- Market power in markets for technology can be a concern
  - Dow-Carbide
  - Shell-Montedison
- Immunizing IPR against anti-trust challenge can lead to undesirable consequences in a world with lots of software (and lots of embedded software)

# **BUT: IPR are *different* from a transaction perspective**

- Unclear metes and bounds.
- Use often requires complementary know-how.
  - Access German patents after WW I not enough for US firms to enter organic dyestuffs, nitrogen fixation, synthetic rubber.
  - After WW II, patents not enough. Need detailed plant tours, hire consultants and trade for know-how.

# Importance of Know-How: Policy Implications

- Compulsory licensing of *technology* likely to be difficult
  - Monitor know-how transfer
- Greater flexibility in contracts needed (for voluntary licensing)
  - Know-how transfer may require bundling of patents, equipment and know-how

# Refusal to License: Preliminaries

- *Refusal to deal may reduce social welfare*
- *No special immunity to IP*
- *Intervene only if firm has market power*
  
- Trade off incentives to innovate versus static consumer welfare.
- Incentives for follow on and complementary innovation also important
  - ICI licensing (due to anti-trust) of polyethylene patents helpful for development of process tech by UCC, others

# Refusal to License: A Cost-Benefit Approach?

- Why is a license needed? Why not substitute?
- Superior technology (no duty to license)

OR

Leveraging existing market power / standard  
(possible intervention)

- Principle: Social benefit of innovation *versus* Private benefit -- No disproportionate leveraging

# Implementation

- Counterfactual analysis.
  1. Spin-off IP in separate firm, with independent, profit maximizing management.
  2. Estimate value of spin-off and compare with market being leveraged.
  3. If value of spin-off much less than market, ask if genuine complementarity, or leveraging. (e.g. Microsoft case?)
  4. If leveraging, consider challenging refusal to license

# Estimating “stand alone value” (value of spin-off)

- Need model of strategy of hypothetical spin-off for exploiting IP
  1. Refuse license. Exploit itself → efficiency rationale for refusal to license. → No anti-trust action needed
  2. Exclusive license (possibly to original firm) – Estimate price. Compare with estimated profits from market being leveraged. → Action may be needed
  3. Non-exclusive license. Estimate price. Compare with estimated profits from market being leveraged. → Action may be needed

# Virtues of proposal

- Cost-benefit framework
- Only applies if firm has market power – no leveraging otherwise
- Efficiency rationale for refusal built in

# Economic Objections (all valid !)

- Arbitrary exclusion of some benefits possibly contemplated by IP holder when investing. Impair incentives to innovate
  - True, but only applies to firms that achieve market power (and therefore, likely a return)
  - True, but incentives to innovate for others
- Patents contemplate monopoly – right to exclude
  - True, but this is inevitable if you want anti-trust. Only way out of this doctrinal dead end is to surrender arms

# More Economic Objections (all valid !)

- Stand alone valuation ignores legitimate complementarities
  - True, but proposal includes right of firm to demonstrate this. Monopolist may bundle for non-efficiency reasons.
- Stand alone valuation has problems if patents apply to many markets
  - True, but can carry out the analysis as if spin-off had exclusive field of use license and rights to license ?
- Too difficult to do ?
  - True, but growing market for technology offers hope of comparable market data