

Merger Policy and Innovation: Sector-Specific Issues and Remedies

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Merger and Innovation: Four Main Questions

- With horizontal overlap downstream, an un-remedied merger raises prices and hence profit-margins. Higher margins mean more innovation. Should one accept an increase in prices to foster innovation?
- Are innovation-specific efficiencies likely to be significant?
- Can a merger reduce innovation even when the relevant markets in which innovations would be useful are not yet known?
- How do we apply these principles to specific sectors of activity?

Answer 1

- See Motta-Tarantino, Federico-Langus-Valletti: with downstream overlap and constant prices a merger decreases innovation. This effect is stronger, the more extensive the downstream overlap is.
- Under fairly general conditions, this effect dominates the pro-innovation effect due to increased profit margins.
- Pragmatically, there is no reason to refrain from divesting the overlap simply because the resulting price increase might be good for innovation.

Answer 2

- There are indeed many sources of potential innovation-related efficiencies decreasing the cost of innovation, increasing incentives to invest in innovation or both.

| Efficiency | Cost Reduction | Increased Incentives |
|---------------------------------|----------------|----------------------|
| Internalising Spillovers | | + |
| Internal Diffusion of Knowledge | | + |
| Duplication Avoidance | + | + |
| | | |
| Sequential Innovation | | + |
| Legal Certainty | + | + |

When are significant efficiencies likely

| Efficiency | Conditions | Evidence |
|------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Spillovers | A and B's products rely on similar technologies Weak IPR | Technology Licensing uncommon. Trade Secrets ineffective. Large workforce turnover |
| Internal Diffusion | A and B's products rely on similar technologies Weak Patents | Technology licensing uncommon. Reverse engineering difficult |
| Duplication Avoidance | Directed R&D. A, B Pursue similar technologies | A and B obtain similar patents (EPO X Y) at similar dates |
| Sequential Innovation | Rapid innovation A and B pursue similar lines of research | Rapid changes in market shares. Mutual patent citations |
| Legal Certainty | Scope of IPRs unprecise A and B 's technologies and IPRs potentially infringe each other. | Litigation/oppositions between the parties No cross-licensing |

Links between spillovers and Internal Diffusion

| | Increased Diffusion | Increased Incentives |
|----------------------------------------------|---------------------|----------------------|
| Perfectly Efficient Licensing, no Spillovers | 0 | 0 |
| Inefficient Licensing, no Spillovers | + | + |
| Complete Spillovers | 0 | + |
| Inefficient Licensing, Incomplete Spillovers | 0/+ | + |

Answer 3

- Innovators do not compete downstream
- Firms interested in the resulting technology do not compete downstream either
- First-mover advantages → incentive to be first to discover (R&D “race”). Merger → slower innovation.
- Sources of first-mover advantage: reputation, brand, installed base, IPRs.
- The stronger/broader the IPRs the stronger the incentives to race → greater potential harm from a merger.

Answer 3: What to Look For?

- History of patenting/inventing in same broad technological areas
- Reciprocal citing of past innovations
- Commonality of patents/scientific papers cited in patent applications
- Movement of scientific personnel between the two firms
- Scientific publications of employees
- Specialised (expensive and lumpy) equipment?

Different Sectors, Different Challenges

- Pharmaceutical
- Telecoms

Example 1: Pharma

- Long lag between initial research and market introduction
- Substantially targeted research
- Still some companies have strengths in broad fields (e.g. oncology)
- Only moderate continuous improvements of current products
- Strong but fairly narrow patents
- Fairly well-defined patents
- “Me too” drugs

Pharma

- Often vertically Integrated and material overlap downstream → negative effect on innovation but divestment of products or product divisions effective.
- Pipelines are just a special case of overlap. One can think of them in terms of potential entry.
- Even longer term effects: importance of R&D capacity (Glaxo-Novartis).
- Strong first-mover advantages → plausible “innovation market” theories of harm → possible divestment of research capacity.

PHARMA

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Example 2: Telecoms

- Abuse of dominance might be harder to detect, understand, and correct.
- “Continuous” innovation
- “Disruptive” innovation

Telecoms

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