



ASSESSING INNOVATION THEORIES OF HARM IN EU MERGER CONTROL

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AGENDA

My objectives today:

- to provide a **broad overview** of theories of harm exploring the relationship between mergers and innovation
- to highlight some **similarities/differences** in issues btw **traditional and digital** contexts

Focus not restricted to so-called “Innovation Theory of Harm” developed in Dow/DuPont and by Chief Economist’s Team

- Background: why it is a relevant topic
- Innovation-related theories of harm in merger control in traditional industries
- Innovation-related theories of harm in merger control in digital industries

BACKGROUND

A topic that increasingly attracts policymakers' attention

“

....protecting innovation is important in our merger policy. So important, in fact, that we're considering whether to change our rules to do it more effectively.

”

Commissioner Vestager, *Competition: the mother of invention*, 18 April 2016

REASONS FOR THE HYPE

- Consolidation wave both in the US and, to some extent, in the EU
- “Serial” digital acquisitions by large digital firms/ecosystems
- Innovation seen as the engine of growth and the antidote to entrenched market power
- Innovation not only one of the parameters of competition, but a key parameter of competition
- Perception of the limits of current understanding and the need for more refined
 - Theoretical approaches to the assessment of non-price effects of mergers
 - Methodologies and tools for the assessment

INNOVATION THEORIES OF HARM IN MERGER CONTROL IN TRADITIONAL INDUSTRIES

TWO MAIN TYPES OF INNOVATION-RELATED THEORIES OF HARM IN EU CASE PRACTICE

Horizontal merger ↓ competition
created through innovation
[focus on external R&D rivalry]

Potential competition

FIRM 1
IN the market

FIRM 2
ABOUT TO enter
the mkt

Future competition in product mkt

FIRM 1
ABOUT TO enter
the mkt

FIRM 2
ABOUT TO enter
the mkt

Horizontal merger ↓ innovation
[focus on internal R&D rivalry]

Future competition/cannibalization

FIRM 1
IN the mkt or
MAY enter the
mkt

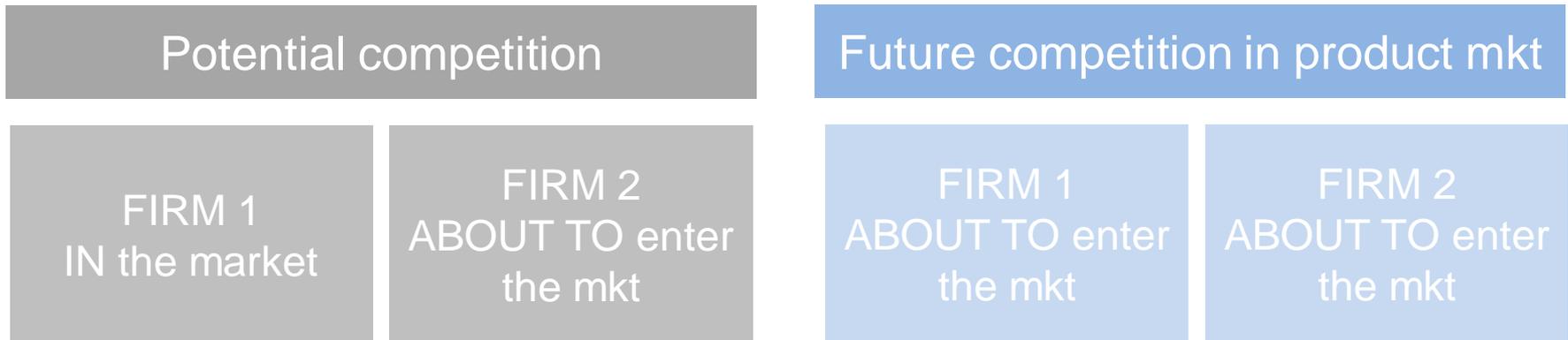
FIRM 2
MAY enter the
market

Competition in innovation/ItoH

FIRM 1
has R&D in
“innovation mkt” or
“innovation space”

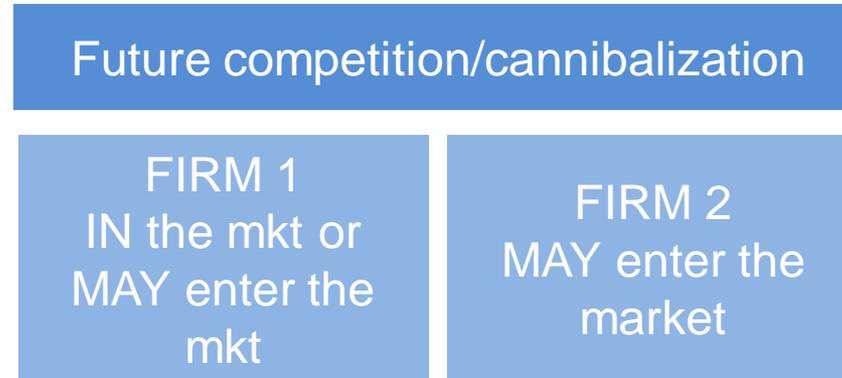
FIRM 2
has R&D in
“innovation mkt” or
“innovation space”

Merger ↓ competition created through innovation



- Anticompetitive effect (well established in EU legal framework, e.g. EU HMG)
 - Standard static unilateral effects on price (internalization of negative pricing externality) **on existing market**, recently considered also on **future markets**
 - Focus on **innovations close to market** (e.g., Phase III pharmaceutical research – **Case Pfizer/Hospira**)
 - Merger with a potential competitor may have similar effects as merger between current competitors because it eliminates an important competitive force
- Key elements of the assessment (EU HMG)
 - **Closeness of competition**: the **potential competitor** must already exert a **significant constraining influence**, or it must be sufficiently likely that it would grow into an effective competitive force
 - **External product rivalry**: there must not be a sufficient **number of other potential competitors**

Horizontal merger ↓ innovation/1



- Anticompetitive effect
 - Discontinuation of an (upstream) R&D project of one of the merging firms (e.g., Phase I, II, and III Pharmaceutical research) because of a “negative innovation externality” [e.g., **GSK/Novartis Oncology**]
 - Extension of the unilateral effect analysis from price to innovation: effect of increased concentration on innovation presumed to be negative, but for redeeming efficiencies
- Key elements of the assessment
 - Likelihood of success of the R&D
 - Time horizon longer than the usual 2-3 years
 - Strength of future competitors

Horizontal merger ↓ innovation/2



- Anticompetitive effect
 - Key idea is that competition in product mkt may not fully reflect competition in innovation
 - Negative unilateral effects on innovation may occur even absent static unilateral effects or even absent any direct link with current or future mkts
 - Horizontal merger reduces rivalry and allows firms to internalize broad “negative innovation externalities”

Horizontal merger ↓ innovation/2

“Innovation markets”

(Gilbert and Sunshine, 1995; US DoJ and FTC 1995 Antitrust Guidelines for the Licensing of Intellectual Property; similar concept – “R&D poles” – in EU R&D Coop Guidelines)

*“the research and development directed to particular new or improved goods or processes, and the close substitutes for that R&D. The close substitutes are R&D efforts, technologies, and goods that significantly constrain the exercise of market power with respect to the relevant R&D, for example by limiting the **ability and incentive of a hypothetical monopolist to retard the pace of R&D.** The Agencies will delineate an innovation market **only when the capabilities to engage in the relevant R&D can be associated with specialized assets or characteristics of specific firms.”***

↓ R&D rivalry →
↓ R&D spending

The theory applies as long as specific R&D activities having an effect on specific product market can be identified

Horizontal merger ↓ innovation/2

“Innovation spaces” or “Innovation theory of harm”

(Federico et al., 2017 and 2018; EU **Case Dow/DuPont**)

↓ rivalry → ↓ R&D efforts (including R&D spending)

- **Cannibalization:** ↑ incentive to shut down R&D projects targeting same “innovation spaces” (this, even though the Commission acknowledged that “*it may not be able to identify precisely which early pipeline products or lines of research the parties would discontinue, defer or re-direct*”)
- **Harm to firm innovation:** ↓ Firm’s “overall innovation incentives” (This effect “likely to be significantly larger than the first” according to EU Com in Dow/DuPont)
- **Harm to innovation for “industry as a whole”:** ↓ Industry’s “overall innovation incentives”

Horizontal merger ↓ innovation/2

Whether and to what extent the IToH applies, as per its proponents, depends on the **importance of innovation** and on the same elements taken into account in assessment of unilateral price effects:

- **Market concentration:** harm more likely if merger brings together two of a limited number of competitors in the same innovation space
- **Closeness of competition:** harm more likely if parties are close competitors (not necessarily closest competitors) in innovation
- **Barriers to entry and expansion in R&D:** harm more likely if loss of dynamic competition unlikely to be mitigated by external R&D rivalrily
- **Countervailing efficiencies:** harm more likely if limited positive pre-competitive effects

OPEN ISSUES FROM AN ECONOMIC STANDPOINT/1

- Presumption that increased concentration through mergers → ↓ R&D
 - Dow/DuPont represents a very fact-intensive analysis that identifies specific domains of R&D competition
 - IToH proponents have become ever more careful in stressing that no presumption underlines IToH and case-by-case assessment is required
 - Yet, the very idea that IToH is an extension of unilateral effects analysis from price to innovation suggests the well-known underlying logic that increased concentration is presumed to have anticompetitive effects, but for the existence of countervailing efficiencies
- Is such a presumption warranted in light of economic analysis?

OPEN ISSUES FROM AN ECONOMIC STANDPOINT/2

- Role of efficiencies in the competitive assessment
 - In the unilateral price effect analysis, efficiencies are assessed after a theory of harm has been put forward and need to satisfy a very demanding test, as they have to be **(a) passed on** to consumers; **(b) verifiable**; and **(c) merger-specific**;
 - In the analysis of the anticompetitive effects of mergers on innovation, what matters from an economic standpoint is the **net effect** of the merger, considering the internalization of both positive and negative externalities
- Is it sound policy to assess asymmetrically positive and negative impacts of the merger on innovation?
- In particular, is there some specific type of efficiency that deserves to be analysed at the stage of the assessment of anticompetitive effects? (e.g., efficiencies from *innovation sharing* as suggested by Denicolò and Polo, 2018)

INNOVATION THEORIES OF HARM IN MERGER CONTROL IN DIGITAL INDUSTRIES

SOME SPECIFICITIES OF MERGER CONTROL IN DIGITAL INDUSTRIES

- Particularly relevant to preserve **competition for the market** (e.g., fringe competition) by avoiding creation of barriers to entry as competition in the market is typically limited
- **Internalization of positive externalities** may turn out to be a competitive concern: it simultaneously increases value for consumers and raises barriers to entry
 - Network effects
 - Data-driven network effects
 - Complementarities and efficiencies from combining product innovations
- **Boundaries of current product markets** may not fully capture all dimensions of competition
 - **Ecosystems** of related products rather than straightforward horizontal overlaps
 - Traditional concept of **potential competition** difficult to apply

CONGLOMERATE MERGERS AND FUTURE COMPETITION/CANNIBALIZATION

Bourreau/de Stree (2019)

- Propose to adapt the future competition/cannibalization theory of harm (“innovation markets”) to digital markets in a conglomerate context
 - Large digital conglomerates may eliminate future competition by a start-up by acquiring it to delay or cancel its innovation (an issue of **internalization of negative innovation externality**)
 - Horizontal overlaps may be limited/non-existent, but start-up may become future competitor
 - “innovation markets” in the digital context defined on the basis of capabilities and inputs needed to pursue “upstream” research, e.g. data, engineering skills, computation power and risk capital
- Is this outcome likely in light of the context of generalized increasing returns they consider?

Conglomerate mergers and potential competition in “users’ spaces”/1

Crémer, de Montjoye and Schweitzer (2019)

Report to the EU Com “Competition Policy for the Digital Era”

- Propose to consider potential competition in “technological spaces” or “user spaces” broader than narrowly defined product markets (\neq *upstream* innovation spaces)
- Acquisition of start-up in same “user space” by large dominant firm may raise concerns if:
 - start-up has large (and growing) user-base
 - high degree of concentration
 - high barriers to entry due to network effects (highly entrenched dominance) and data-driven network effects
- Anticompetitive effects:
 - \uparrow barriers to entry
 - Expansion of the **ecosystem** controlled and dominated by the acquirer
 - Reduction of the prospect of independent decentralized innovation

Conglomerate mergers and potential competition in “users’ spaces”/2

- ToH emphasizes strengthening of market power due to **internalization of positive (innovation) externalities**
- Merger may “strengthen dominance as it fortifies dominance of the ecosystem, in part because the **new services** add value to the consumers for which they are **complements** and in part because they help retain other users for which they are **substitutes**”
- Relevant test is whether merger reduces rivalry w.r.t. counterfactual where start-up would have survived stand-alone or been bought up by a competitor
- No presumption of illegality, but even trickier to raise efficiency defense, as efficiencies are the very source of anticompetitive effects

CONCLUSIONS

- In traditional industries, innovation-related ToH emerging from EU case practice focus on horizontal effects and have evolved in the direction of:
 - A significant expansion of the time horizon considered for the assessment of relevant competitive dynamics (from products close to mkt to “innovation spaces”)
 - An asymmetric treatment of the effect of mergers on the internalization of negative innovation externalities and of positive countervailing efficiencies
- In digital industries, new innovation-related theories of harm emerged in the policy debate (not yet in case practice) focus on conglomerate effects and highlight
 - Concerns similar to those addressed by the notion of “innovation markets”, thus emphasizing the internalization of negative externalities through mergers
 - But also, concerns for the anticompetitive effects of the internalization of positive externalities through mergers
- Both developments open up interesting legal and economic issues, to be debated in our seminar!