Assessing Non-Horizontal Mergers

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Assessing non-horizontal mergers
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Overview

- Introduction
- Input foreclosure
- GE/Avio: total input foreclosure
- vGUPPI: partial foreclosure
- Customer foreclosure (time permitting)
- Conglomerate mergers (time permitting)
- Questions
Introduction
A taxonomy of mergers

“Horizontal”

Substitutes

“Vertical”

Complements

“Diagonal”

“Indirect substitutes”

Complements

“Non-horizontal”

“Conglomerate”

No relationship

Sugar beet farm

Sugar cane factory

Stella Artois, Jupiler, Oreo, John Deere, Sugar beet farm, Sugar cane factory, Microsoft, banana
Mergers in the presence of substitutes and complements

**Horizontal mergers**
- producers of substitute goods

\[ \uparrow p_A \rightarrow \downarrow q_A \text{ and } \uparrow q_B \]

- merger eliminates a direct competitive constraint and this may lead to a price increase

**Non-horizontal mergers**
- producers of complementary goods

\[ \downarrow p_A \rightarrow \uparrow q_A \text{ and } \uparrow q_B \]

Pre-merger, no incentive to boost demand for the complementary product

Post-merger, internalisation of externality may lead to a price decrease
Non-horizontal mergers are more likely to be pro-competitive...

“Much of the controversy associated with non-horizontal merger enforcement arises from the widely held view that anticompetitive harm from such a transaction is unlikely (and if present is difficult to identify) and therefore that the motivation for non-horizontal mergers is not to enhance or preserve market power, but to realize efficiencies.”

— J. Church, “The Impact of Vertical and Conglomerate Mergers on Competition” (2004), Report for the European Commission

“Efficiency effects … are likely to dominate in most cases”


“[11] Non-horizontal mergers are generally less likely to significantly impede effective competition than horizontal mergers, [12] […] vertical or conglomerate mergers do not entail the loss of direct competition, [13 ][and] provide substantial scope for efficiencies. [92] […] conglomerate mergers in the majority of circumstances will not lead to any competition problems, […]. ”

...but in some cases they can also give rise to anti-competitive effects

Non-horizontal mergers may still be anti-competitive if they permit post-merger behaviour that is able to exclude rivals.

Most non-horizontal theories of harm focus on anti-competitive foreclosure: using strength in one product market to foreclose rivals in the other neighbouring market, ultimately harming consumers.

**Vertical/diagonal mergers:**

- **Input foreclosure:** merged firm may deny its horizontal competitors access to the vertically-related good (or allow access but charge higher prices).
- **Customer foreclosure:** merged firm may refuse to purchase from horizontal rivals.

**Conglomerate mergers:**

- by tying the sales of the products together, a firm enjoying significant market power in one market (the “tying” market) might be able to leverage this power into another market (the “tied” market).
Input foreclosure
Input foreclosure: the basic idea

- Refusing to supply downstream rivals – or charging a higher price
  - in order to affect their competitiveness and capture further sales downstream

Extra profit from diverted sales downstream

Foregone upstream profit

Market power? Costs raised?

Consumers

Upco

Downco

Upco’s rivals

Downco’s rivals
Assessing non-horizontal mergers in practice: the European perspective

- Old approach largely based on “abstract” theories of harm rather than empirical analyses
  - Foreclosure often seen as concern in and of itself

- Following the adoption of the NHMG (2008), Commission changed this and also introduced the new term “anti-competitive foreclosure”
  - Para 18: “foreclosing or raising rivals’ costs matters only in the presence of an adverse impact on consumers”
  - In line with EC Art.102 Guidance Paper (on abuse of dominance)

- Application of this “competition, not competitors” principle requires an assessment of the following “closely intertwined” factors:
  - Ability – is the merged entity able to foreclose?
  - Incentive – is it profitable for the merged entity to foreclose?
  - Effects – would final consumers suffer?
Input foreclosure: ability

- Focus is on assessing market power in the upstream market
  - Degree of competition among Firm A’s rivals, ease of entry, buyer power, dynamic effects (e.g. self-supply, vertical integration of rivals).
  - Absence of market power for Firm A makes input foreclosure unlikely
- BUT not only about market power in the upstream market: also depends on importance of the upstream good for the downstream rivals
  - Harming rivals’ ability to compete becomes easier (a) as the share of input as % of rivals’ marginal costs increases, or (b) if the input is essential
Input foreclosure: incentives

Would the strategy be profitable?

Incentive to foreclose only if additional downstream margins (benefits) are larger than foregone upstream margins (costs). Key parameters include:

- **Diversion ratios downstream**: diversion to Downco only from affected rivals. Gains from diversion weakened by presence of unaffected rivals (due to self-supply, credible threats to switch, terms secured by long term contracts, etc.).

- **Margins**: higher upstream margins imply greater foregone profit relative to downstream units gained
  - Ratio of inputs:outputs must also be considered.
  - If foreclosure through higher prices, we must consider increase in upstream unit margins too

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Input foreclosure: effects

- **Final price** involves balancing **efficiency** and **cost-raising effects**
- Balancing may be implicit, e.g. only intervening in cases where cost-raising effects are found to be significant

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**What impact on final prices?**

*Pushes downstream price upwards*

**Supplies at cost. Pushes downstream price downwards**

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Final consumers
Input foreclosure can be *total* or *partial*

- “Total” means *refusing to supply* the input to downstream rivals
- “Partial” means continuing to offer the good *but at a higher price*

From a theoretical viewpoint, a partial input foreclosure strategy with a *very* high price is akin to a total input foreclosure strategy

**Focus on *total* input foreclosure first!**

- If there is an incentive to engage in *total* input foreclosure, there will be an incentive to engage in *partial* input foreclosure too
- If there is no incentive to engage *total* input foreclosure, there may still be an incentive to engage in *partial* input foreclosure
Case study: GE/Avio

An assessment of total input foreclosure
GE produces **aircraft engines**

- Sells to airframers / airlines
- Only a small number of engine models are “certified” to operate on each airframe

Avio produces a number of **components** for aircraft engines

- Components are Power Gearboxes, Accessory Drive Trains, Oil Pumps and Tanks, Combustion Chambers, etc.
- Components are to some extent bespoke for each engine model
- Relevant components are a very small fraction of the cost of an engine (around 5-10% in total), but are essential for it to function

GE and Avio do not compete – Avio is upstream of GE in the production chain – so no direct loss of competition

So what was the concern?
Concern: Avio would refuse to supply rival engine producers with components in the hope of increasing sales of GE engines

Would GE have both the ability and incentive to engage in such a foreclosure strategy?

Partial input foreclosure unlikely at the outset
- Components only small % of engine price – no significant switching expected from higher prices
- Stringent quality regulations imply no scope for varying non-price parameters

Only total foreclosure considered in more detail
Would GE/Avio have the **ability** to foreclose?

Avio does not possess **market power** in the supply of engine components as customers could switch to alternative sources of supply

- Engine manufacturers own the IP surrounding the design of their components, so they could use alternative sources of supply
- Engine manufacturers already self-supply part of their own components, and could quickly ramp-up the scale of this in-house production
- Low market share (between 1% and 30%) under all meaningful market definitions
- A large number of effective rival suppliers would be able to produce these components

Commercial relationship between Avio and P&W/RR governed by Long-Term Agreements, which include comprehensive contractual protections against any type of supply disruption (and also price/quality changes).

→ **GE/Avio unlikely to have the ability to foreclose.**
Would GE/Avio have an incentive to foreclose? (1/2)

Would the likely benefits of a foreclosure strategy outweigh its likely costs?

The benefits of foreclosure are likely to be modest:

- **Limited additional GE engine sales:**
  - Any disruption to sales of rival engines will only be **short-lived**
  - As a result of **self-supply** only a partial disruption of competitors would be possible
  - Customers with an **installed base** of the rival engine are very unlikely to want to switch.
  - GE unable to sell additional engines due to **capacity constraints**

- **Limited benefit to GE of any additional sales:**
  - GE would only gain a fraction (50%) of the profits from additional engine sales, as the “GE engines” are actually produced by a **joint venture** with another firm
Would GE/Avio have an **incentive** to foreclose? (2/2)

The **costs** of foreclosure are likely to be high:

- **Loss of component sales** for the entire duration of the rival engine programme
- **Loss of associated spare parts** sales
- **Substantial damages** for breach of contract (even if non-wilful)
- **Retaliation**, for example engine manufacturers switching their purchases of other products away from Avio, airframers not certifying GE engines on future airframes
- **Substantial reputational damage**, in an industry where firms necessarily have to engage in long-term relationships with each other

→ **GE/Avio unlikely to have an **incentive** to foreclose.**
vGUPPI

Assessing the incentive to engage in partial foreclosure
vGUPPI: starting with the standard GUPPI approach

Horizontal overlap (standard approach)

What is the diversion from independent retailer to Walmart store?

What is the margin earned at Walmart stores (in absolute terms)?

Increase in retail price.

Recaptured sales

Independent retailer  Walmart store

Final consumers
vGUPPI: accounting for “leakage”

Vertical/diagonal overlap

Other wholesalers

Increase in wholesale price

What probability of independent switching to different wholesaler?

Independent retailer

Pass-on – higher retail price

How much of the wholesale price increase is passed on as a higher retail price?

Final consumers

Recaptured sales

What is the diversion from independent retailer to Walmart store?

What is the margin earned at Walmart stores (in absolute terms)

vGUPPI is the standard GUPPI, scaled down to account for the various “leakages” shown in red
vGUPPI: some measurement issues

**Diversion ratios**

- Past switching? Consumer surveys?
- “Critical diversion ratio”
  - How much diversion is required to produce vGUPPI of 5% / 10%?
  - Is this plausible/realistic?

**Retail switching to other wholesalers following wholesale price increase**

- Wholesale price elasticity
- Inferences from wholesale margins?
  - In principle yes: inverse relationship between variable margins and elasticity
  - But relationship not always straightforward

**Pass-through**

- Often (but not always) between 50-100% - complex theory
- Empirical analysis usually required
Cases where authorities explicitly mention the use of vGUPPI

- McKesson’s acquisition of Katz Group’s healthcare business in Canada
  
  http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04174.html
  

- Tesco/Booker case in the UK
  
  https://assets.publishing.service.gov.uk/media/5a3a7d9ae5274a73593a0cc7/appendices_and_glossary_tesco_booker_final_report.pdf

- AT&T/Time Warner in Chile
  

Authorities have so far relied more on vertical arithmetic tools than on vGUPPI
Customer foreclosure
Customer foreclosure: theory

- Firm B is a **critical source of demand** for Upstream Rivals and Firm B refuses to purchase from Upstream Rivals...

- Failure to access Firm B leads to a **denial of substantial scale economies** for Upstream Rivals...

- Upstream Rivals operate at a **higher level of cost**...

  - Upstream Rivals charge higher prices to Downstream Rivals, resulting in end customers switching to Firm B, thus benefiting Firm B

  and/or

  - Firm A can charge higher prices to Downstream Rivals, benefiting Firm A
Key question: does merged entity have the ability to raise rivals’ costs by refusing to purchase from them?

- Substantial scale economies and Firm B critical to achieving them?
- Upstream Rivals cannot induce Downstream Rivals to grow (and capture share from Firm B)?
- Upstream Rivals cannot forward integrate or supply end customers directly?
- Downstream Rivals do not have alternative sources of supply whose cost base is not dependent on selling to Firm B?
Customer foreclosure: incentive and effects on consumers

Incentive: will the merged entity find it profitable to engage in this behaviour?

- Impact of foregoing Upstream Rivals’ input
  - raises Firm B’s costs / reduces Firm B’s revenues?

- How does this negative impact compare to the benefits to Firm A and/or B?

Effects on consumers

- Only relevant if ability and incentive both exist

- Higher cost to Downstream Rivals offset by Firm B’s efficiency gain?
  - e.g. reduced double marginalisation, Firm A produces more efficiently, environment for investment?
  - If Firm B lowers prices, Downstream Rivals may not be able to pass on higher costs – no impact on end customers in that case?
Conglomerate mergers
• Conglomerate theories of harm usually only raised in cases where merging products are closely related, e.g. complementary goods

• Theory of harm: leverage strong position in one market to another market, through tying or bundling
  – Tying: purchase of good A conditional on good B also being purchased
  – Pure bundling: A and B only sold together
  – Mixed bundling: discount offered if A and B are both purchased

• Tying and bundling is usually pro-competitive: elimination of “double marginalisation” (Cournot effect), technical efficiencies etc.

• Anticompetitive effects only occur in (very) rare cases – see next slide.
Conglomerate mergers: assessment of theory of harm

**Ability to foreclose** (not mere ability to engage in tying of bundling!)
- Significant market power in leveraging or tying market? “Must-have” products?

**Incentive to foreclose**: is the strategy profitable? Trade-off between:
- **Costs** associated with bundling or tying (some customers may stop buying altogether)
- **Gains** from expanding sales (e.g. customers now also purchasing good B) and possible higher prices (if market power is created)

**Overall effect on consumers**
- Will customers accept or resist the tie/bundle?
- Is rivals’ **ability to compete** affected? Mere loss of sales not a problem. Economies of scale?
- Will merged entity ultimately increase prices?
Thank you for your attention – Q&A
Locations and contact

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