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Conglomerate mergers

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[Joint work with Zhijun Chen]

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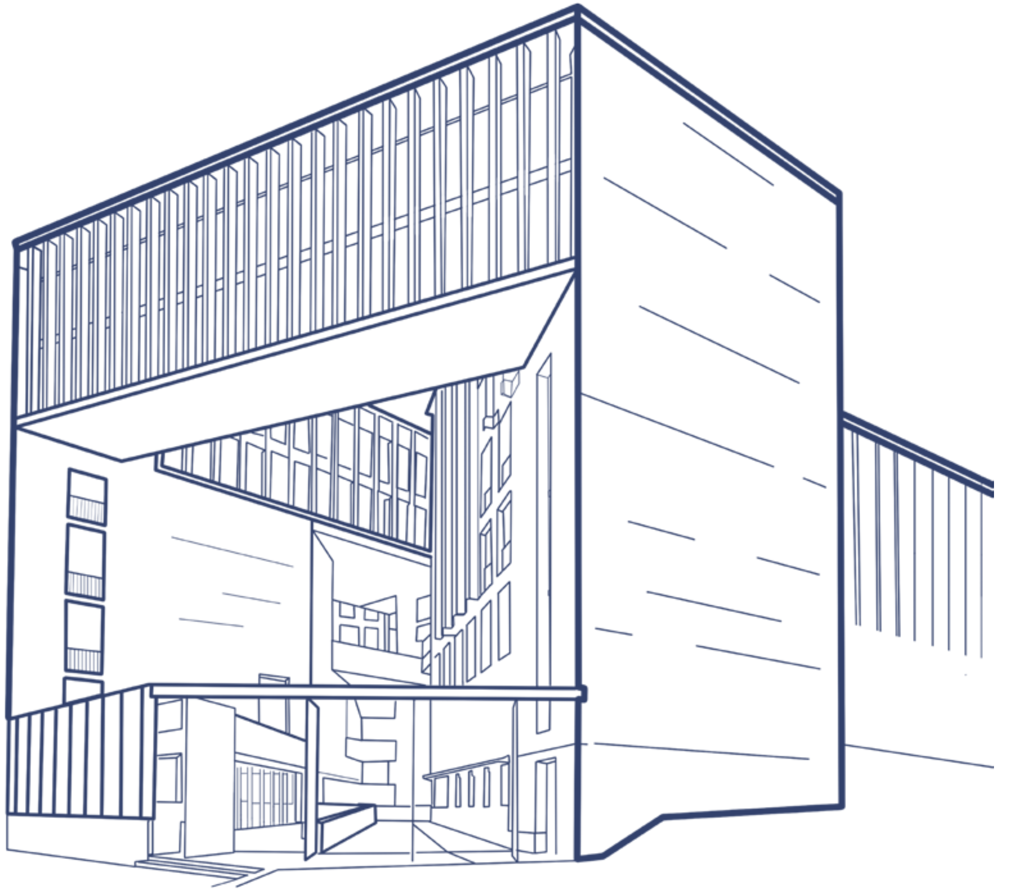

Definition

- Antitrust: neither horizontal nor vertical
  - Separate product markets (non-substitutable products)
  - Same customer (independent / complementary products)
- EU Merger guidelines (2008)

  "Conglomerate mergers are mergers between firms that are in a relationship which is neither horizontal (as competitors in the same relevant market) nor vertical (as suppliers or customers). In practice, the focus of the present guidelines is on mergers between companies that are active in closely related markets (e.g. mergers involving suppliers of complementary products or products that belong to the same product range)."
- [Finance: broader definition – fully unrelated activities]

Cases

- Recent wave in digital economy
  - 2014: *Google/Motorola*, $12.5 billion; *Facebook/WhatsApp*, $22 billion
  - 2015: *AT&T/DIRECTV*, $48.5 billion; *Dell/*EMC, $67 billion
  - 2016: *Microsoft/LinkedIn*, $26.2 billion
  - 2018: *Qualcomm/NXP*, $47 billion
  - 2019: *Nvidia/Mellanox*, $6.9 billion
  - 2020: *Google/Fitbit*, $2.1 billion; *Facebook/Giphy*, $315 million
  - 2023: *Booking/eTraveli*, $1.7 billion [Disclosure]
- Other sectors as well
  - 2016: *ASL/Arianespace*, €150 million
  - 2018: *Luxottica/Essilor*, €46 billion

End of a policy divide?

- Four decades of US—EU divide
  - US: no antitrust concerns
    - Robert Bork (1978): “no threat to competition”
    - Merger Guidelines: concerns disappear in 1982
    - No prohibition in 40 years
  - EU: exclusionary concerns based on “portfolio effects”
    - *GE/Honeywell* (2001): upheld by CFI on non-congl. grounds
    - *Tetra Laval/Sidel* (2002): overturned by CFI/ECJ
    - No prohibition afterwards for 20 years
- Recent developments
  - US: Merger guidelines (December 2023)
  - EU: *Booking/ETG* (September 2023)

Efficiency benefits

- Double marginalization [Cournot 1838]

  Applies to all complements (“vertical” / “horizontal”)
  - Reducing price of one component boosts demand for others
  - A merger leads to lower prices
- Can be transposed to investment, R&D and innovation
  - Reducing cost / increasing quality boosts demand for compl.
  - A merger leads to greater investment
- Tying, technical integration
  - Pervasive (cars and smartphones are “bundles”)
  - Lower transaction costs, consumption synergies

Theories of harm: foreclosure

[Rey and Tirole *Handbook of Industrial Organization* 2007]

- Tying as an entry barrier [Whinston *AER* 1990]
  Commitment to aggressive response to entry
- Protecting core market [Carlton and Waldman *Rand* 2002]
  Scope econ.: entry in adjacent mkts may ease entry in core mkt
- Tying/interop. & innovation [Choi and Stefanadis *Rand* 2001]
  Force rivals or entrants to innovate in multiple markets
- Hold-up [Allain, Chambolle and Rey *RES* 2016]
  Create / exacerbate hold-up concerns for rivals

Theories of harm: bundling I

- Different types of practices
  - Pure bundling: offers only the bundle *A–B*
  - Tying: e.g., offers *B* and the bundle *A–B* (does not offer *A* alone)
  - Mixed bundling: offers *A*, *B* plus the bundle *A–B* at a discount
- Price effects
  - Lower prices for bundles (elimination of double marginalization)
  - Ambiguous impact on stand-alone prices
- Remark: mixed bundling versus quantity rebates
  - Pay-TV packages (basic, movies, news, sport, …): mixed bundling
  - *Lyonnaise Câble*: “star system”

Theories of harm: bundling II

- *GE / Honeywell* [Disclosure]
  - Complements: *GE* engines and *Honeywell* avionics, …
  - Calibrated model put forward by rival engine manufacturer
    - engines: two competing suppliers
    - avionics: three competing suppliers
    - demand for six "combinations"
  - Merger simulation
    - merger leads to lower market shares for rivals
    - even more so with mixed bundling (compared to no bundling)
    - but consumers … benefit (lower prices for bundle and rivals)

AT&T – Direct TV

- Parties (US)
  - *AT&T*: largest Internet and telephone service provider
  - *DIRECTV*: second largest pay-TV supplier
- Complaints
  - *American Cable Association*, Biglaiser: higher prices (content)
  - *Netflix*: abuse of market power (interconnection)
- Defence
  - *AT&T*: consumption synergies (save costs for consumers)
  - Katz and Berry & Haile: benefit from one-stop shopping
- After the merger, *AT&T* *raised* prices for TV packages

Consumption synergies

- Recurrent feature
  - *Aerospatiale-Alenia/De Havilland* (commuter aircraft)
    - would be the first to cover all markets (small/midsize/large aircraft)
    - airlines could save on spares and maint., pilot certif. and training
  - *AT&T/DirectTV*
    - save on number of setup boxes and installations (Internet + TV)
    - single consumer support, billing, …
  - *Eurotunnel/SeaFrance*
    - urgent freight: rail
    - non-urgent freight: ferries
  - More generally: one-stop shop benefits
    - saving on transaction costs (e.g., shopping costs, learning, …)
  - [Supply-side synergies: innovation spillovers *ATT/NCR*]

Theories of harm: ecosystems

- Supply
  - Economies of scale and scope
  - Data
- Demand
  - Network effects
    - Direct (e.g., social media)
    - Indirect (e.g., marketplace)
  - Convenience
    - Consumption synergies
    - One-stop shopping benefits

Consumption synergies: pros and cons

- Efficiency benefits
  - Consumption synergies generate value
  - Issue is whether they will be passed on to customers
- Anti-competitive effect
  - Efficiency offence (*Aerospatiale-Alenia/de Haviland*)
  - Portfolio effects (*GE/Honeywell*)
  - Confers a competitive advantage to the conglomerate
  - Can be exacerbated by bundling strategies

“A theory of conglomerate mergers”

Joint paper with **Zhijun Chen**

- Key ingredient: consumer benefits
  - Consumption synergies or one-stop shop benefits
  - Heterogeneous across consumers
  - *AT&T*: Haile and Berry
- Theory of harm: product differentiation
  - Softer competition, harms consumers with low benefits
  - Exacerbated by bundling or tying strategies
  - Particularly harmful when competition already weak

Baseline setting

- Pre-merger: two separate markets A,B
  - Supply: identical firms $A_1 \ldots A_{n_A}$ and $B_1 \ldots B_{n_B}$
  - Consumers: *independent* unit demands for each product
  - Homogeneous unit costs and valuations: $u_A > c_A$, $u_B > c_B$
  - In each market $i = A, B$:
    - if $n_i > 1$, competition drives prices down to cost: $p_i = c_i$
    - if instead $n_i = 1$, monopoly pricing: $p_i = u_i$
- Conglomerate merger between A_1 and B_1
  - Conglomerate can offer bundle $A - B$
  - Generates heterogeneous consumption synergies

If pure bundling and tying are *banned*

- Stand-alone prices remain unchanged
  - In any non-monopolized market, prices remain at cost
    - competition between multiple stand-alone rivals
    - competition between conglomerate and stand-alone rival
  - In any monopolized market, price remains at monopoly level
    - appropriates all consumer surplus
    - relaxes competitive pressure on the bundle
- In addition, conglomerate sells the bundle at a premium
- Win-win situation (Pareto-improvement)
  - Mix-and-matchers and stand-alone rivals are unharmed
  - Conglomerate and purchasers of bundle share added-value

If pure bundling and tying are *allowed*

- Same outcome in monopolized and dispersed markets
- Conglomerate withdraws from duopoly markets
  - Confers market power to stand-alone rival
  - Leads to higher stand-alone prices
  - Relaxes competitive pressure on bundle
- As a result:
  - Consumers with low consumption synergies are harmed
  - Total consumer surplus can decrease
  - Conglomerate and stand-alone rivals obtain higher profits

Extension: imperfect competition

- Setting: two duopolies, horizontal differentiation
  - Perfect correlation across preferences for the two products
  - Ban on tying and bundling
- Strong rivalry: mixed bundling
  - Merger exacerbates differentiation and weakens competition
  - Higher stand-alone prices to limit cannibalization of bundle
- Weak rivalry: de facto pure bundling; the merger can
  - Harm all consumers (if initial rivalry is sufficiently weak)
  - Benefit rivals (all the more so as initial rivalry is already weak)

Extension: one-stop shop benefits

- One-stop shoppers benefit even absent bundling
  - Conglomerate cannot charge more for the bundle
  - No role for mixed bundling (same as no bundling)
- With pure bundling and tying: same analysis
- No pure bundling or tying: similar + some nuances
  - Dispersed + duopoly: price at cost in *concentrated* market
  - Two duopolies: mixed strategies, higher expected prices

Extension: merger dynamics

- Setting: three markets A,B, C with n firms ($n > 1$)
  - Sequential merger opportunities
  - Endogenous merger and bundling/tying decisions
- Insights
  - A single conglomerate emerges, offering all products
  - If $n = 2$, remaining stand-alone firms do not want to merge
  - If $n > 2$, conglomerate deters subsequent mergers
    - offers both large and small bundles – but then only sells large one
    - deterrence reduces total consumer surplus and social welfare

Lessons: bundling

- Pure bundling or tying more likely to raise concerns
  - Exacerbates product differentiation effect
  - Higher stand-alone prices, particularly if weak competition
  - Can increase profit at the expense of consumers
- Mixed bundling can be socially beneficial
  - Can be needed to generate consumption synergies
  - Can foster the intensity of competition

    lower bundled prices: elimination of double marginalization
  - Caution, however, in case of weak rivalry

    possibly higher stand-alone prices, *de facto* pure bundling

Lessons: conglomerate mergers

- Creates market power / increases profit
  - For the conglomerate
  - For its rivals in concentrated markets
- Can harm consumers
  - Particularly so in case of pure bundling or tying
  - More likely when competition is already weak

Summing-up: moving towards ecosystems

- Key ingredient: heterogeneous consumer benefits
  - Consumption synergies
  - One-stop shop benefits
- Product differentiation
  - Bundle versus basket
  - One-stop versus multi-stop shopping
- New theory of harm
  - Not about foreclosure or harming rivals
  - Not about bundling or tying