

# Diagnosing Monopoly Power in Markets with Rapid Technological Change (RTC Markets)

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# Basic Features of RTC Markets

- (Expected) SR market power is necessary ex ante for innovation; thus expect SR market power, perhaps dominance, in RTC markets
- But to find monopoly power need *durability* of SR power, usually assessed via analysis of barriers to me-too entry
- In RTC markets innovative/Schumpeterian entry may quickly eliminate SR power even if me-too entry is difficult
- Vigor of dynamic competition to innovate, not price competition, is key to future performance when rapid technological change is possible
- Testimony focus is problems, not solutions:
  - Ignoring the special features of RTC markets  $\Rightarrow$  false positives,
  - But exaggerating those features  $\Rightarrow$  false negatives

# Three Main Topics:

- The difficulty of predicting whether RTC market features will endure
- The fragility of market power based on network effects
- Some special problems posed by two-sided/platform/catalyst businesses

# Predicting the Pace of Innovation

- If vigorous Schumpeterian competition endures – disruptive, market-stealing innovation – SR power not a great concern
  - Still worry about using SR power to limit LR competition
- Innovation often comes in bursts of uncertain length, timing
  - Autos: RTC until mid-1920; another burst coming?
- Direction and sources of innovation also hard to predict
  - Music: Walkman wiped out after years by MP3/iPod
  - Innovation markets miss the radical; sometimes useful
- Need to be thoughtfully skeptical to avoid two errors:
  - Ignoring disruptive innovations under serious development
  - Assuming all sexy new technologies will actually disrupt

# Dominance from Network Effects

- In some RTC markets, network effects can lead to high shares, substantial SR market power
- Snapshot is consistent with vigorous Schumpeterian competition, no expected excess profits – *also* consistent with its absence
- SR power from network effects is especially vulnerable to innovation: large share because everyone expects a large share
  - PCs wiped out Wang word processors quickly
- Esp. important & hard to predict the pace of disruptive change
  - After years of talk about software as (web-based) service, Google recently launched potential threat to MS Office

# Basic Economics of Multi-Sided Platform Businesses

- Platforms make money by igniting reactions between disparate *customer* groups; indirect network effects, Coase theorem fails
  - Description of business models, not market fundamentals
  - Rochet-Tirole saw common features; live research area
- A wide variety of old & new businesses are two-sided: marriage brokers, media, shopping malls, exchanges, payment cards,...
- Newly important because of software platforms + internet
- Maintaining balance among groups is key to platform strategies
  - Often involves asymmetric pricing; all profit on one side
  - But must think of all groups (e.g., apps writers) as customers
  - Can have overlapping, single-sided, intersecting competition

# Assessing Monopoly Power in Multi-Sided Platform Businesses

- Need to recognize that the business is not just sales to the profitable side: game consoles worry about games, consumers
- Need to worry about competition from different models: FM v. satellite radio, Google v. magazines, Craigslist v. newspapers
- Price-cost margin useless because of asymmetric pricing
- Using the Guidelines approach is at least tricky
  - Competitors may have very different models: games v. PCs
  - Raising price to A reduces demand from A, thus B, which feeds back on A; tough to get elasticities right
- Because both groups are necessary, intense competition for *either one* can eliminate profits even if “dominate” the other

# Concluding Remarks

- Monopoly power can certainly exist in markets with rapid technological change; Section 2 should apply there
- But be careful: slowing rapid technological change is *very* costly
- Dangerous to assume that today's conditions -- SR power or vigor of dynamic competition -- will persist; hard to predict change
- Market power based on network effects/expectations is particularly fragile if innovation is vigorous
- Platforms in RTC markets pose tough analytic problems; ignoring their special features can lead to a variety of serious errors
- Wish I could be more upbeat, but sometimes life is just hard...

# Suggested Readings

D.S. Evans and R. Schmalensee, “Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries,” in J. Lerner and S. Stern, eds., *Innovation Policy and the Economy*, vol. 2, Cambridge: MIT Press, 2002, pp. 1-49.

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