

BROOKINGS

QUALITY. INDEPENDENCE. IMPACT.

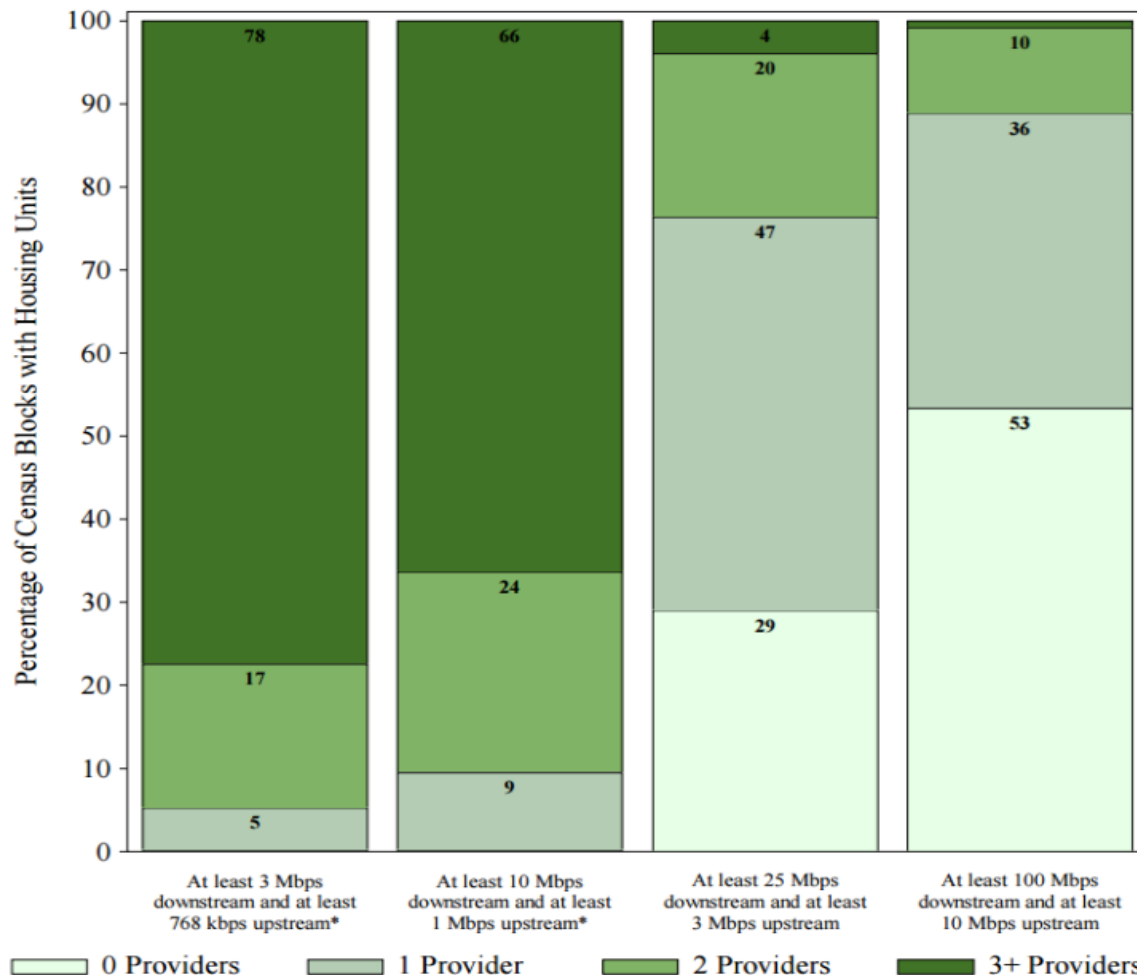
# Broadband Competition & Competition Policies

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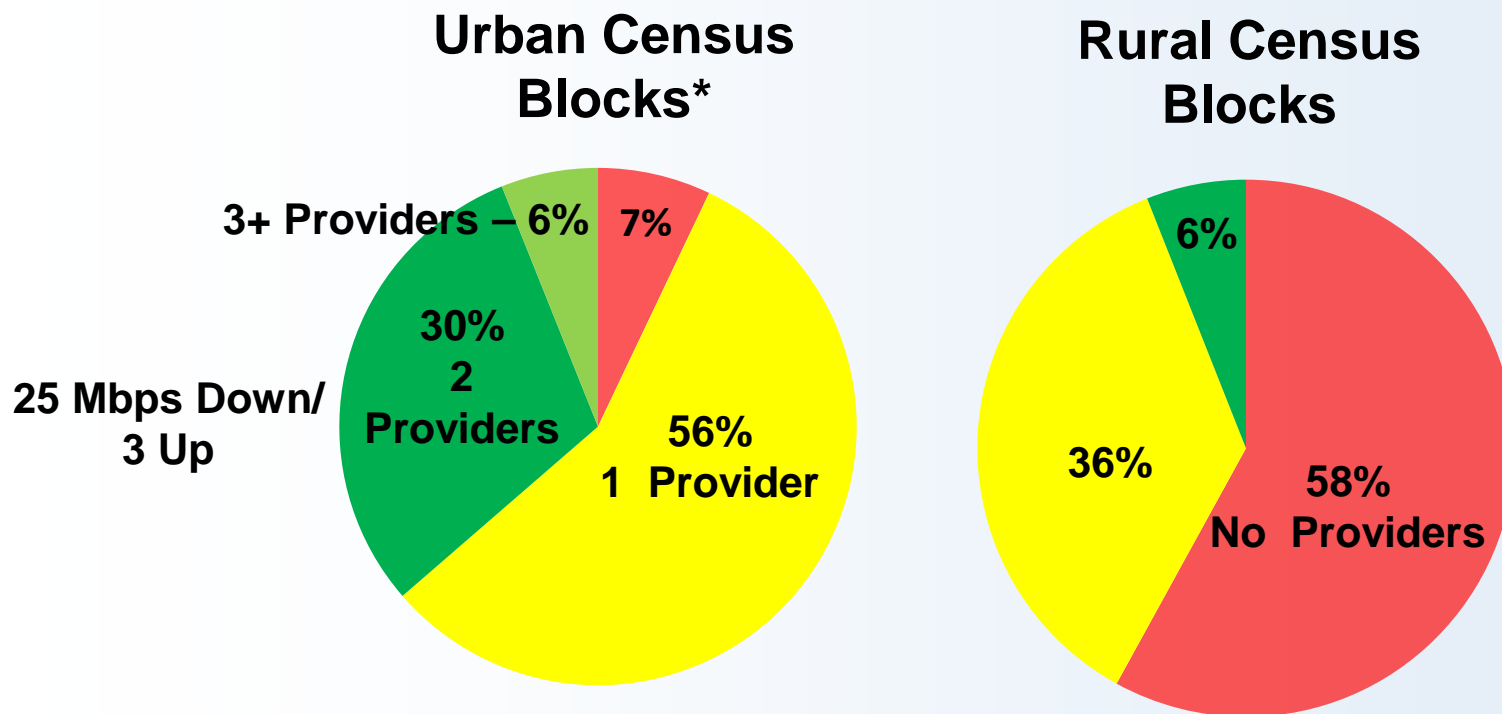
Jonathan Sallet  
Visiting Fellow  
Brookings Institution  
February 10, 2017



**Percentages of Developed Census Blocks in which Providers Reported the Deployment of Residential Fixed Broadband as of December 31, 2015**

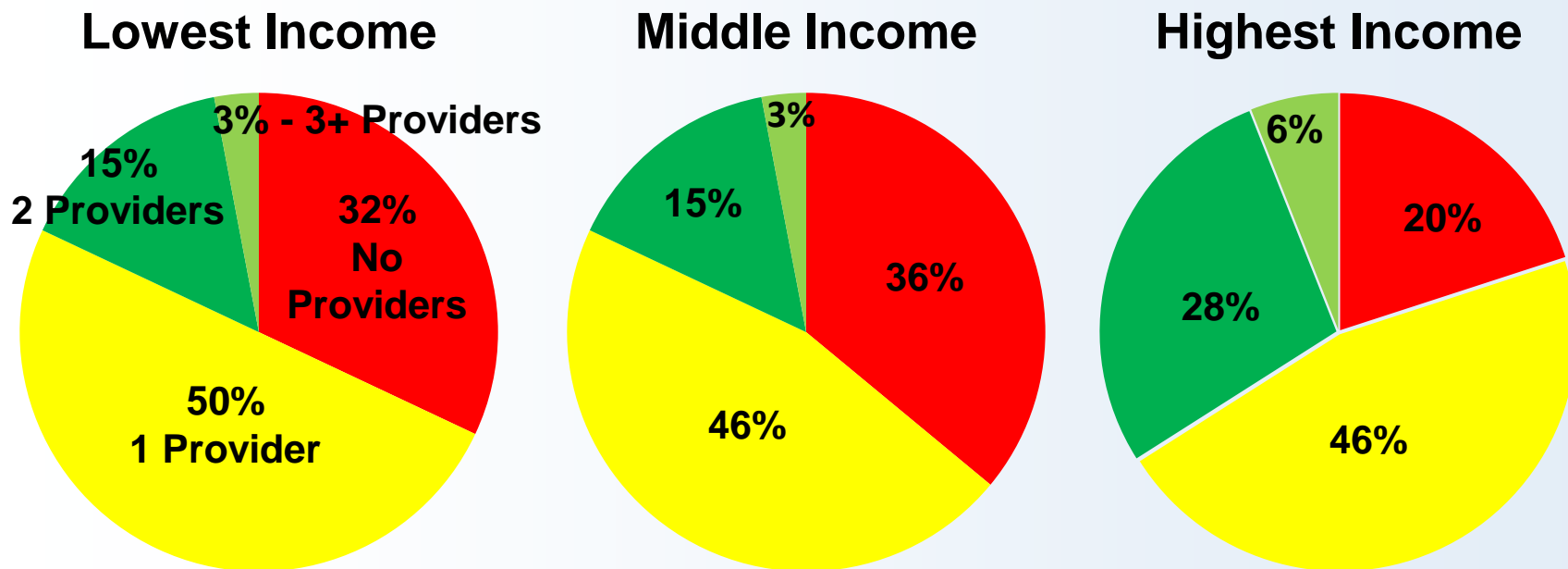


At 25/3, 24% of census blocks have two or more (not necessarily overlapping) fixed broadband providers

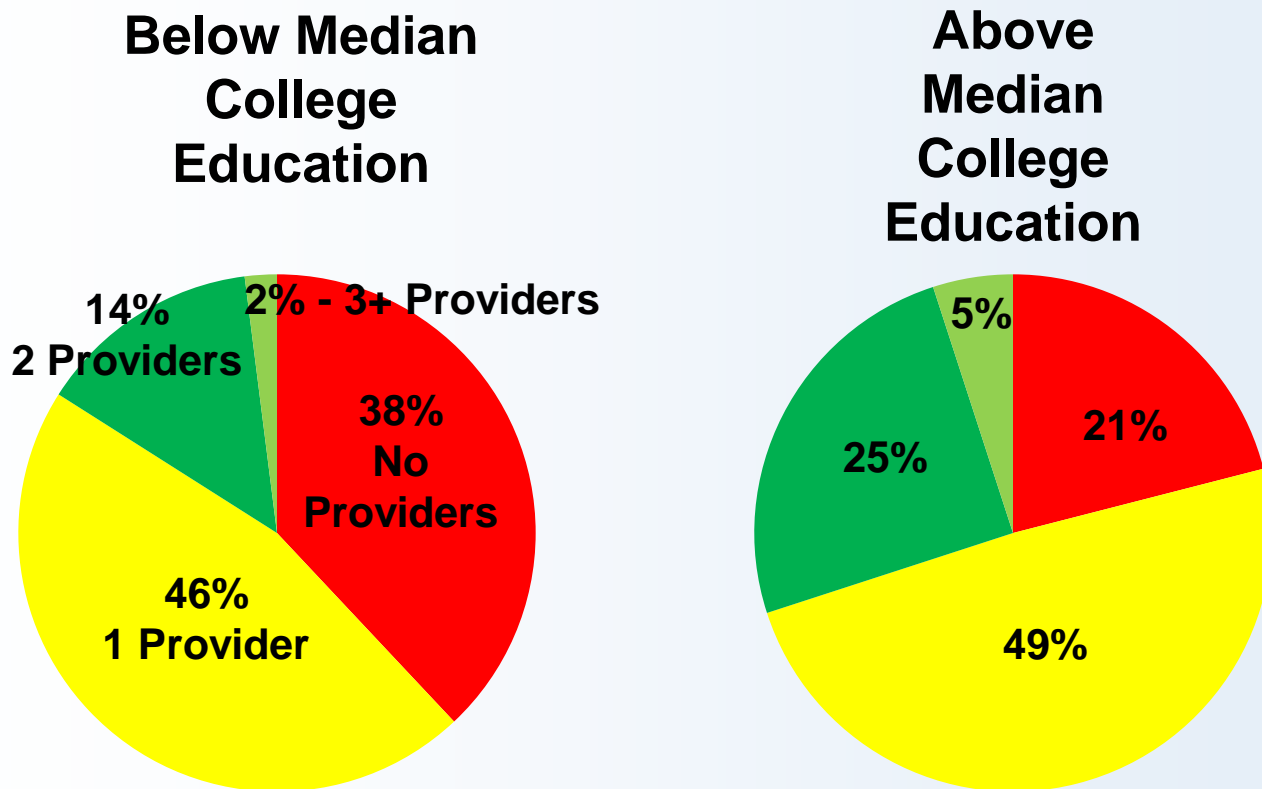


**36% of Urban Census Blocks Have Some Competition.  
That Drops To About 6% in Rural Census Blocks.**

\*Census Block identification based on 2010 census data.



**36% of the Highest Income Census Blocks Have Some Competition. That Drops to 18% For Both Middle and Low Income Census Blocks.**



**30% of the Census Blocks With Above Median College Education Have Some Competition. That Drops To About 16% in Census Blocks With Below Median College Education.**

- Economic theory: Competition drives prices lower, output higher, innovation forward
- Evidence tells the same story
  - » In Chattanooga, TN, the incumbents reduced rates and improved quality in response to new entry.\*
  - » In Wilson, NC, the incumbent held its rates steady where it faced a new entry, while increasing them in nearby areas.\*

\*[https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-15-25A1\\_Rcd.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-25A1_Rcd.pdf)

# Common Ownership and Antitrust Enforcement

Fiona Scott Morton  
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*Silicon Flatirons, University of Colorado at Boulder  
12 February 2017*



Yale SCHOOL OF MANAGEMENT



# Conditions

- Institutional ownership is growing: now 70% of US stock market
- Large institutions that can diversify across stocks and that have economies of scale are growing: largest 4 have about 5% of the stock market each
  - State Street, BlackRock, Vanguard, Fidelity
- Large institutions want to increase the stock prices of the stocks they hold
  - Corporate governance improvements
  - Strategy choice improvements
- There are many oligopolies in the US economy.
  - Aluminum
  - Soda
  - Seeds
  - Breakfast cereal
  - Airlines
  - Wireless carriers
- In an oligopoly, rival firms gain when they compete more softly
- A large institution (especially an index fund) will tend to hold all the rivals in an oligopoly
  - Perhaps not if they trade on different exchanges (e.g. airframe manufacturing)



# Corporate ownership v management

- Manager owns the firm
  - No incentive problem
  - Limits the size of the firm
- Dispersed shareholders own the firm
  - Allows for large size, raising lots of capital
  - No single shareholder has incentive to collect information and monitor management; single shareholder has too few votes to discipline management
  - => agency problem
- Large owner
  - Allows for monitoring management (corporate governance) by the larger owners
  - Can assemble votes to discipline; have financial incentive



# Does corporate governance work?

- Variety of schools of thought...
  - Perhaps driven by whether someone has been on a board and what the experience was like
- It's all box-ticking
  - Independent directors, chairman is also CEO, meet performance targets, incentive compensation
  - No one intervenes unless a crisis
- It's real
  - Owners discuss strategy with management
  - Owners influence compensation
  - Owners nominate board members who they think will be effective and profitable



# Mergers

- If owner of one rival wants to buy the other, antitrust laws become relevant
- Unilateral effects: if consumers find the products of one firm to be substitutes for the products of the other, an owner of both will set higher prices
- Basic result. Well-established in law and in economic research.
- Merger is blocked if substantially lessens competition
- What if ownership is partial?
  - Literature and enforcement here also
  - Setting is one of individual firms, minority stakes, JVs, etc



# Incentive and ability

- Incentive:
  - When one party owns two competitors, the common owner typically does not gain from competition that e.g. delivers lower prices to consumers
  - A single firm has an incentive to maximize only its own profits, the common owner has incentive to maximize joint profits.
- Ability
  - Suppose corporate governance occurs and is effective
  - Then large owners impact firm strategy and intensity of competition
- Result => large institutional fund has the
  - Incentive to soften competition among portfolio firms
  - Ability to soften competition among portfolio firms



# New literature

- Airlines
- Banks
- Compensation



# Clayton Act enforcement

- Clayton Act 1914
- Designed for trusts, hence terminology “antitrust”
- Supreme Court precedent:

*United States v. E.I. du Pont de Nemours & Co.*, Supreme Court: “Even when the purchase is solely for investment, the plain language of § 7 contemplates an action at any time the stock is used to bring about, or in attempting to bring about, a substantial lessening of competition.” 353 U.S. 586 (1957).

- Einer Elhauge, Harvard Law Review, 2016
  - Case for liability under the Clayton Act



# Consequences

- Impact of investment in portfolio company depends on
  - Market structure of product market
  - Who else is a large investor
- Thus liability depends on actions of others – chaos
- How can a fund invest and be sure it is not lessening competition?
- How can we continue to support low-cost mutual fund saving?





# Safe harbor policy

- Limiting holdings of large funds to one firm per oligopoly. (or be 1% or smaller, or be a purely passive index fund)
- Causes a small change in diversification, which in turn has a small impact on saver utility
  - Scholarship on impact of concentration on prices indicates significant price changes. Prices have first-order impacts on consumer utility
- Enforcement agencies could adopt a safe harbor for Clayton Act liability.
- Want funds to be able to plan a coherent investment and marketing strategy that has no liability
- Increases efficiency all around if litigation avoided and investment strategies can be stable



# Consumer/Saver

- We face a tradeoff:
  - The saver wants a low cost, diversified vehicle in which to save: large mutual fund
  - The consumer wants low prices for goods she buys

Need to assess the empirical magnitudes of each force, which is bigger?

Redistribution will matter: Are savers and consumers the same people?



*January 2017*

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# Competition Catalysts

Tim Wu  
Columbia Law School

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# My Perspective

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- ❖ Columbia Law Professor: Antitrust, Media Industries, Telecom Regulation, International Trade
- ❖ Experience: Telecommunications Industry, Federal Trade Commission, Startup Consulting, Office of New York Attorney General, White House National Economic Council
- ❖ Author of *The Master Switch* (2010) and *The Attention Merchants* (2017), and various papers.

# Three 20th Century Models

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State Ownership  
Regulated Industries  
(Roosevelt)

Antitrust  
(Brandeis, Wilson)

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# State Ownership

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# Regulated Industries

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conEdison

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# Antitrust

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The logo for Staples, featuring the word "STAPLES" in white, uppercase, sans-serif font on a red rectangular background.The logo for Whole Foods Market, featuring the words "WHOLE FOODS" in a large, green, serif font with a leaf-like flourish above the "O" in "WHOLE", and "MARKET" in a smaller, green, sans-serif font on a dark green rectangular background below.

[everyone else]

The logo for IBM, consisting of the letters "IBM" in a blue, bold, sans-serif font with horizontal stripes.The logo for Alcoa, featuring a blue diamond shape composed of four smaller diamonds, with the word "Alcoa" in a blue, sans-serif font below it.



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# The fourth way

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Achieve goals of antitrust  
(competitive process)  
using laws and other tools of  
regulatory state

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# What is a Competition Catalyst?

Anything that lowers “costs of competition”

- public or private
- direct or indirect

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# Raising Rivals' Costs

(Steven Salop and David T. Scheffman)

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# Reducing Rivals' Costs

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Necessity of Capital

Exclusive contracts

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Switching Costs

Necessity of Scale

Distribution Barriers

# Costs of Competition

Regulatory Costs & Barriers

Switching Costs

Intellectual Property  
Licenses

Access to Information

Brand Awareness & Trust

# Taxonomy of Competition Catalysts

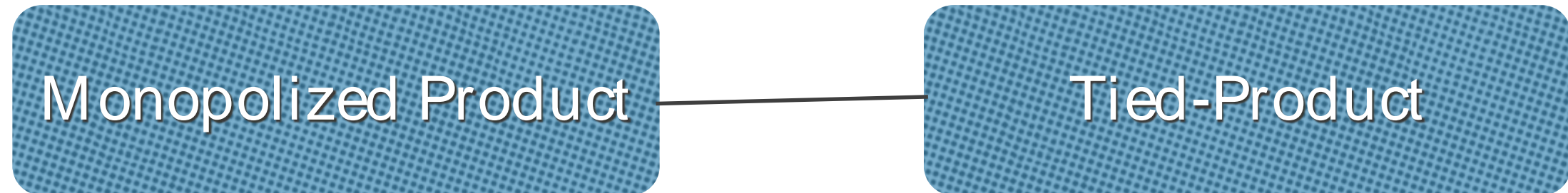
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1. “Separation Rules”
2. “Procompetitive Deregulation”
3. “Switching Cost Reducers”
4. “Levelers and Equalizers”
5. “Truth Rules”
6. “IP Softeners”

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# Separation Rules

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- ❖ A long-established “tie” may foreclose competition in an entire market; a tie-breaker uses a rule to break the tying arrangement
- ❖ Industry-wide practice may also be targeted
- ❖ To work, tied market must be a *real* market, not an invention

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# Successful Separation Rules

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- ❖ 1978 FTC Eyeglass Rule / 2004 Contact Lens Rule
  - ❖ Equipment and Exam sold as bundle
- ❖ “Carterfone” home equipment rules
  - ❖ Only Bell phones and devices allowed



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# Failed Separation Rules

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- ❖ 1996 Telecom Act Unbundling of Network Elements
  - ❖ [omitted: debate over cause of failure]
- ❖ 2004 CableCARD Rules
  - ❖ Set-top box market remained uncontested

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# “The Cut Must be Clean”

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- ❖ Separation Rules that cut *between* defineable markets have a better track record than those attempting to create new markets

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# Pro-Competitive Deregulation

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- ❖ Not all deregulation is pro-competitive – may just relieve industry of consumer protection duties; partial deregulation can be exploited
- ❖ 1978 Airline Deregulation Act
- ❖ Hatch-Waxman Act
- ❖ Failures too: California energy deregulation



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# Switching Cost Reducers

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- ❖ High switching costs require challenger be *much* better than incumbent
- ❖ Reducers are public and private and include:
  - ❖ Data Portability rules (e.g., number portability)
  - ❖ Industry standards (USB, standard roads, .docx etc)
  - ❖ Equipment or other asset transfer rules (carterfone)
  - ❖ Bans on switching penalties or long-term contracts

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# Switching Cost Reducers

## cont.

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- ❖ Must be *very easy* for competitor or consumer to use; otherwise it merely replicates the problem

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# Equalizers and Levelers

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- ❖ Anything that equalizes the costs of reaching consumers with a product
  - ❖ Common Carrier rules (telephone, railroads)
  - ❖ Net Neutrality Rules
  - ❖ Industry standards (e.g., 110 volt)
  - ❖ Infrastructure (roads, ports)
  - ❖ Open platforms
  - ❖ Beer Industry regulation

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# Truth Rules

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- ❖ Presumption that truth in prices or other information improves competition on merits
- ❖ Fraud, deceptive practice, and truth-in-advertising rules
- ❖ "All-in" pricing regimes

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# IP-Softening Regimes

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- ❖ Well known that intellectual property can substantially raise the costs of competition.
  - ❖ Compulsory licenses, Required FRAND licenses
  - ❖ Hatch-Waxman Act
  - ❖ Copyright notice & takedown rules



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# Information Injections

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- ❖ Incumbents usually have more information about their industry, and may also promote misleading information (e.g., “low margin industry” )
- ❖ More reputable industry information, broadly distributed, reduces the costs of competition and entry
- ❖ Sometimes information is too distributed to be made use of, and no one has full incentives to collect it

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# What Works?

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- ❖ Hard question (obviously)
- ❖ Some of most successful catalysts have been *indirect* and *self executing*
  - ❖ Indirect = you don't know who will use it
  - ❖ Self-executing = Minimum necessary interaction with government or incumbent

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# Best Practices

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- ❖ (1) Deregulation First: Government elimination of public, regulatory barriers is a more direct remedy than efforts to eliminate private barriers; however, such deregulation must be procompetitive deregulation to work.
- ❖ (2) Clean Cuts: If the goal is opening a market through a separation rule, a clean cut that yields a real market is desirable
- ❖ (3) Self-Execution: If possible, the incumbent and government must be reduced to a passive role, at best, in the relationship between consumer and competitor;
- ❖ (4) Simplicity: Standards should be simple, and ideally passive in the manner just described.

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# Dangers

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- ❖ Poorly designed regime may both fail to create any additional competition, may then also serve to insulate the industry from antitrust scrutiny (e.g. set-top boxes)
- ❖ Ideas of using laws to ensure “competition” can be used as an excuse to erode consumer protection or other public measures that really have nothing to do with the conditions of competition.
- ❖ Any regulatory system, even an avowedly pro-competitive law, can be used to forestall, entrench, and otherwise damage competition.

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# More Radical Recommendations

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- ❖ Identify stagnant industries and offer prizes to entrants
- ❖ Aggressive preempt state regulatory protections
- ❖ Aggressive policing of abuse of important standards bodies
- ❖ Buy up and make free key inputs (spectrum)
- ❖ For some industries, give up on wistful thinking and just focus on adjacent markets (tie-breakers etc)

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# Direct Competition Catalysts

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- ❖ 1. Direct (public)
  - ❖ - Specific subsidies
  - ❖ - Categorical Aid

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# Direct Subsidies

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**HUAWEI**

- ❖ **Give money to specific, identified competitors**
  - ❖ New York “Empire” Program
  - ❖ Chinese and European “national champions” for global markets (e.g., Hua Wei, Airbus)
  - ❖ High dependence of government judgment

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# Categorical Aid

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- ❖ **Establish a category that triggers specific subsidies**
  - ❖ Subsidizing “sharing” rules in telecom and energy regulation, like the 1996 Telecom Act unbundling rules
  - ❖ Tax subsidies & government procurement of various kinds (e.g., alternative energy, agriculture, military)
  - ❖ Orphan Drug subsidies