

BROOKINGS

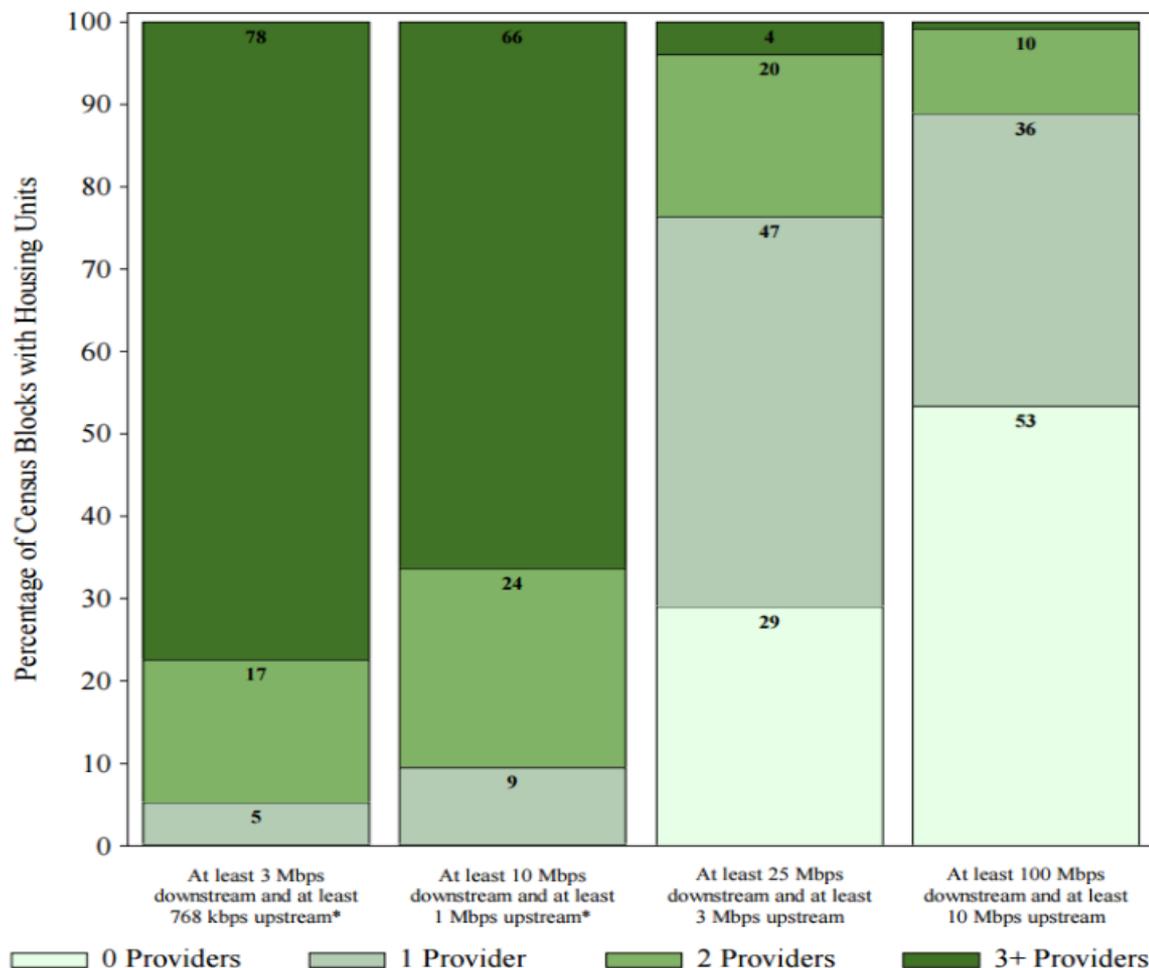
QUALITY. INDEPENDENCE. IMPACT.

Broadband Competition & Competition Policies

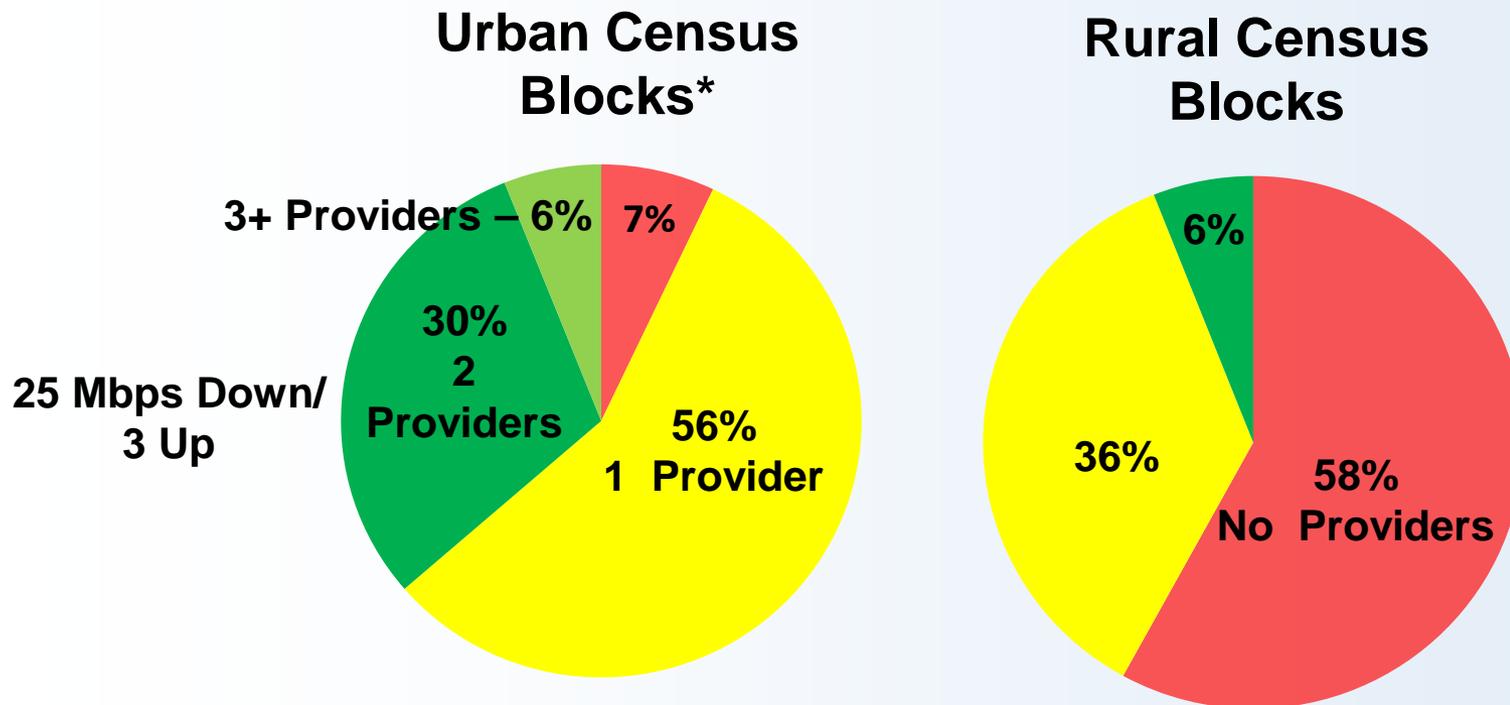
Jonathan Sallet
Visiting Fellow
Brookings Institution
February 10, 2017



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

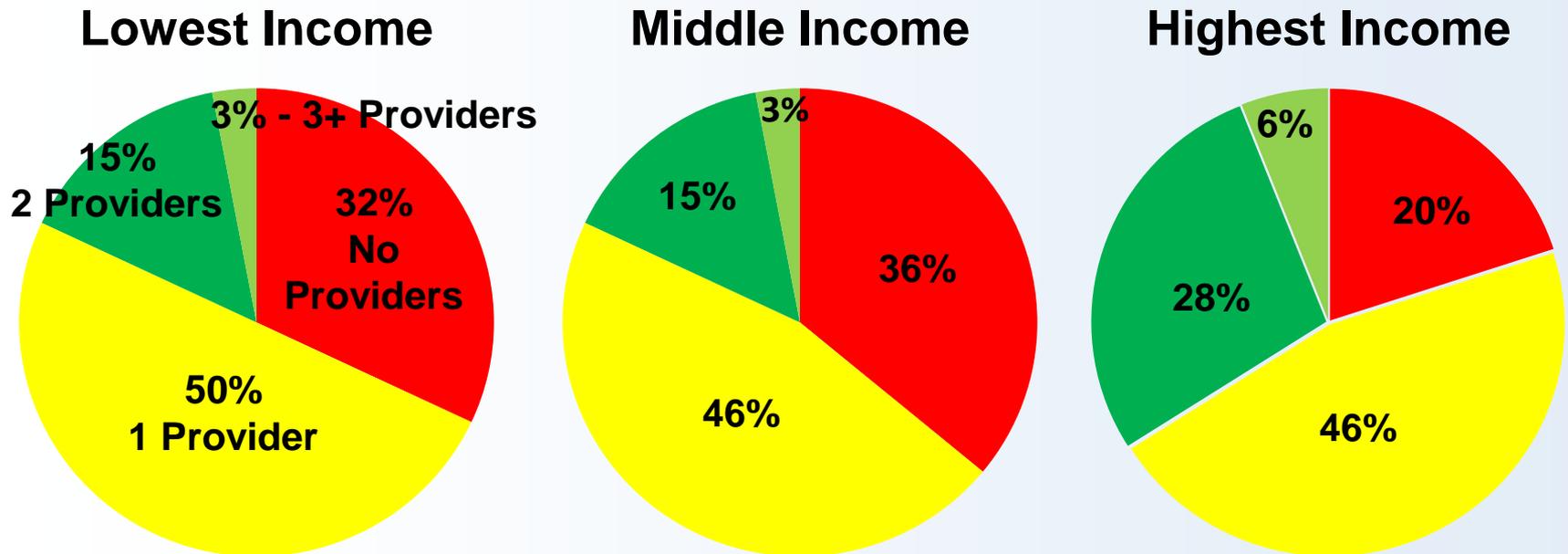


At 25/3,
24% of
census
blocks have
two or more
(not
necessarily
overlapping)
fixed
broadband
providers

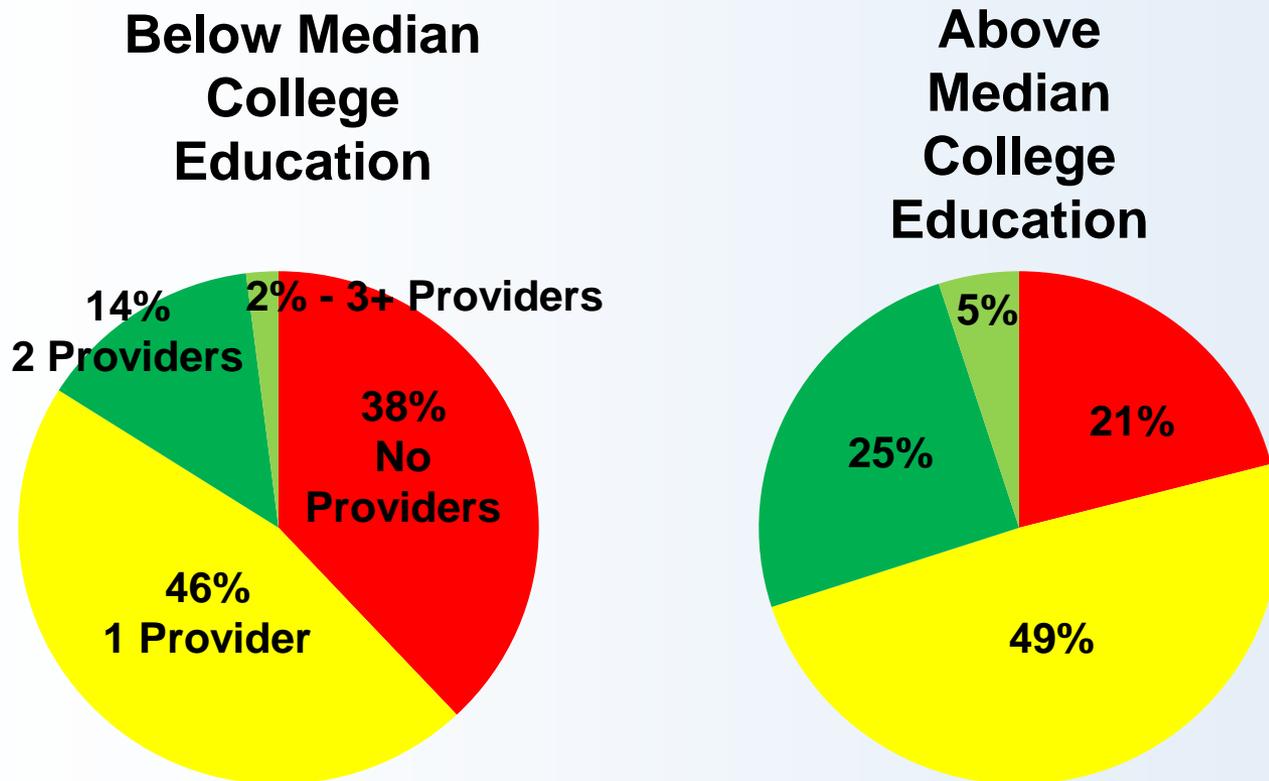


**36% of Urban Census Blocks Have Some Competition.
That Drops To About 6% in Rural Census Blocks.**

*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

Common Ownership and Antitrust Enforcement

Fiona Scott Morton
Yale SOM

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



Yale SCHOOL OF MANAGEMENT

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

Competition Catalysts

Tim Wu
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My Perspective

- ❖ 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

State Ownership
Regulated Industries
(Roosevelt)

Antitrust
(Brandeis, Wilson)

State Ownership



Regulated Industries



conEdison

Antitrust

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.

The fourth way

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

What is a Competition Catalyst?

Anything that lowers “costs of competition”

- public or private
- direct or indirect

Raising Rivals' Costs

(Steven Salop and David T. Scheffman)

Reducing Rivals' Costs

()

Necessity of Capital

Exclusive contracts

Switching Costs

Necessity of Scale

Distribution Barriers

Costs of Competition

Regulatory Costs & Barriers

Switching Costs

Intellectual Property
Licenses

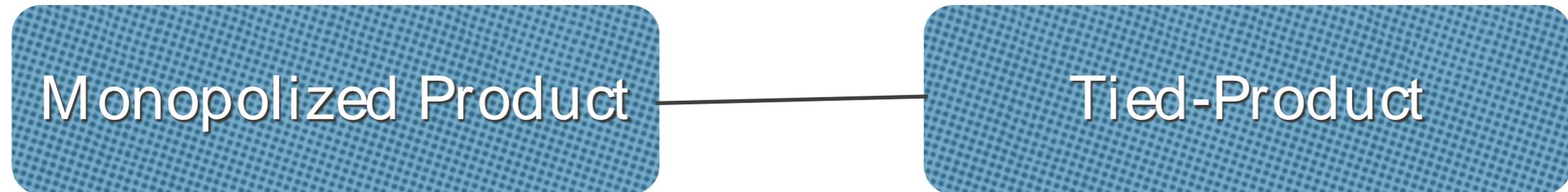
Access to Information

Brand Awareness & Trust

Taxonomy of Competition Catalysts

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

Separation Rules



- ❖ 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

Successful Separation Rules

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

Failed Separation Rules

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

“The Cut Must be Clean”

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

Pro-Competitive Deregulation

- ❖ 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



Switching Cost Reducers

- ❖ 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

Switching Cost Reducers

cont.

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

Equalizers and Levelers

- ❖ 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

Truth Rules

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

IP-Softening Regimes

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

Information Injections

- ❖ 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

What Works?

- ❖ 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

Best Practices

- ❖ (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.

Dangers

- ❖ 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.

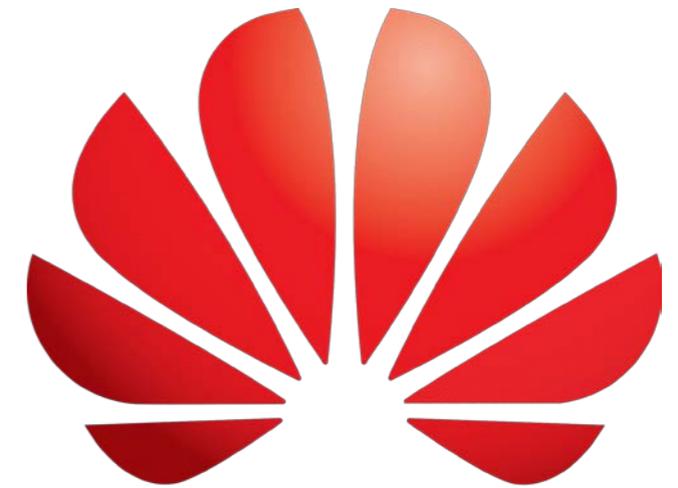
More Radical Recommendations

- ❖ 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)

Direct Competition Catalysts

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

Direct Subsidies



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

Categorical Aid

- ❖ **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