COMPETITION POLICY, INNOVATION AND INEQUALITY

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Growing global market power

Rising Average Global Markup 1980-2016

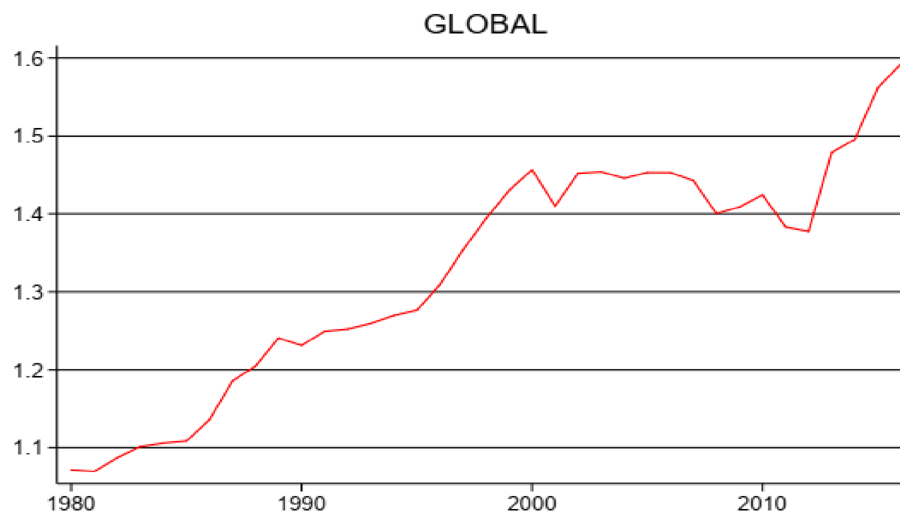


Figure 1: Global Market Power

Source: Jan De Loecker & Jan Eeckhout, Global Market Power
NBER Working Paper No. 24768 (June 2018)

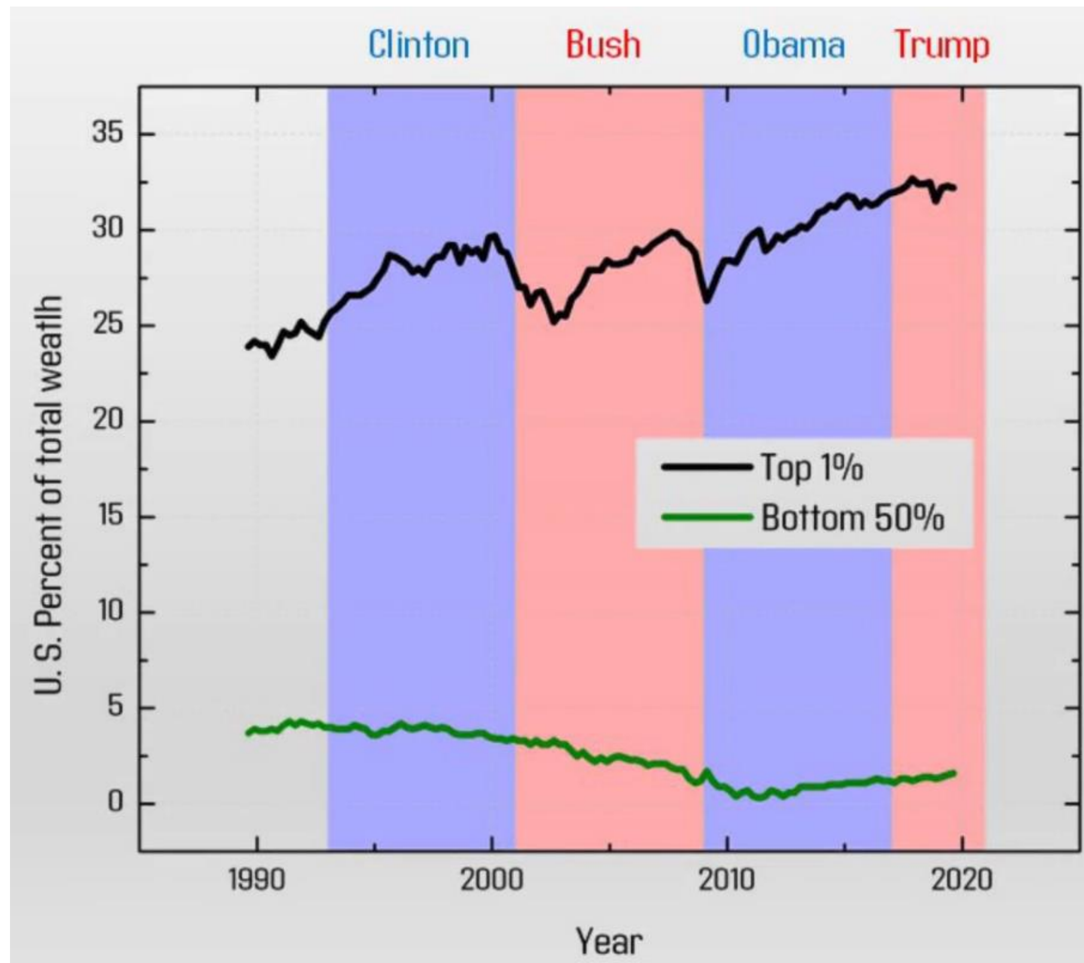
Slowing US Productivity Growth

Total Factor Productivity Growth
US Business Sector
% per year

1947-1973	2.09
1974-1995	0.50
1996-2004	1.84
2005-2016	0.50

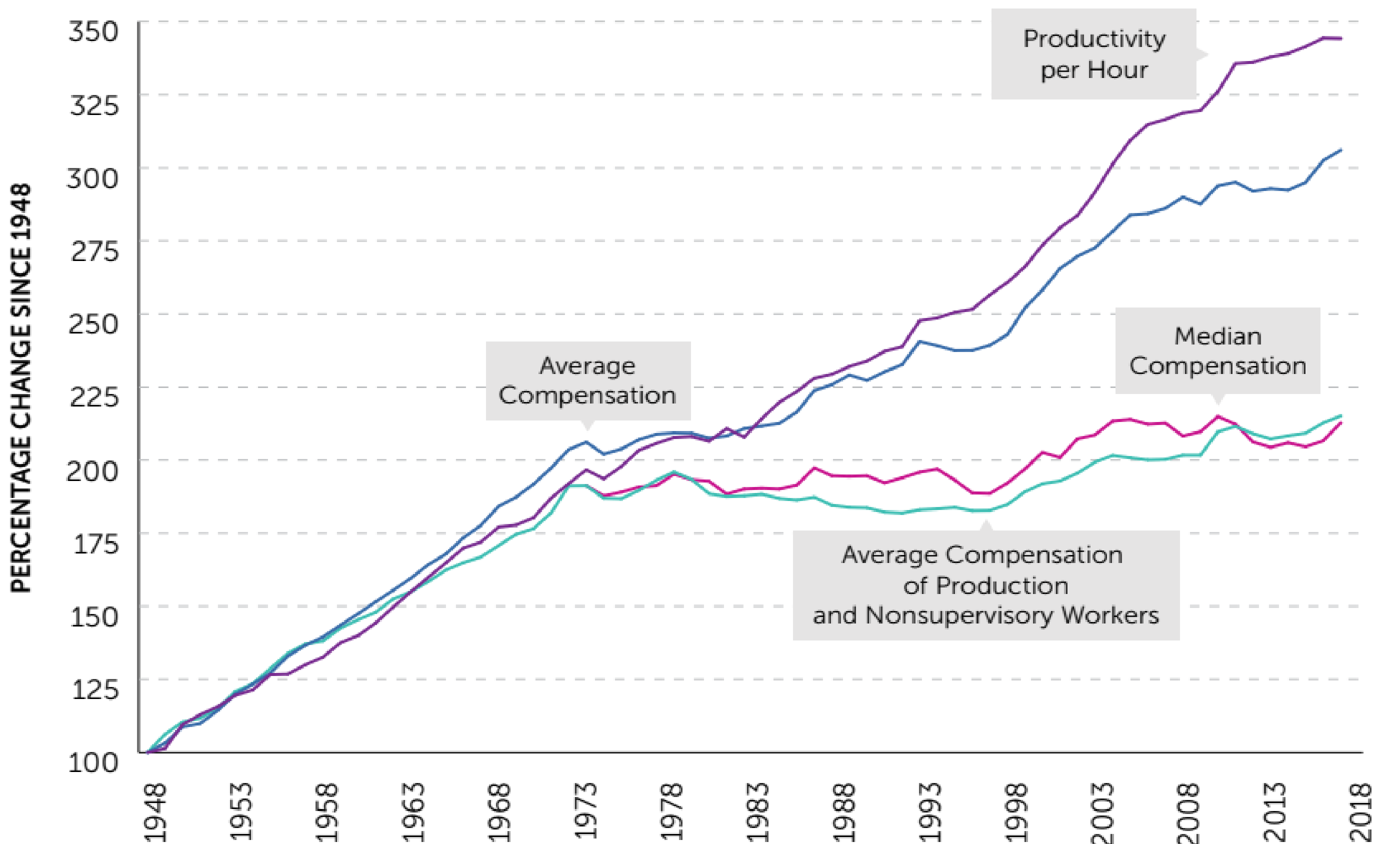
Source: Nicolas Crafts & Terence Mills, Economic models vs 'techno-optimism': Predicting medium-term total factor productivity rates in the US (July 2017), https://voxeu.org/article/slow-productivity-growth-may-not-be-new-normal-us (based on data from Fernald (2016))

Growing US wealth inequality, 1990-2020



Source: https://commons.wikimedia.org/wiki/File:Wealth_inequality_stats_from_Federal_Reserve.png

Productivity Growth Has Not Benefitted the Typical US Worker for Five Decades



Source: Final Report, MIT Task Force on the Work of the Future (2020)

Are the trends connected?

- The exercise of market power discourages innovation and increases inequality
- Stronger antitrust enforcement overall can help address all three problems
- Possible ways to target antitrust enforcement and remedies to enhance innovation and reduce inequality further

Antitrust and Innovation

Antitrust concern with innovation is not new: influential US cases before 1980

- Tying
    - *IBM* (US 1936) (tabulating cards)
    - *International Salt* (US 1947)(machines for utilizing salt products)
- Patents
    - *Standard Oil (Indiana)* (US 1931) (patent pool)
    - *Singer* (US 1963) (exclusion through patent licensing)
    - *Xerox* (FTC 1975) (exclusion through patent accumulation)
- Monopolization
    - *Lorain Journal* (US 1951) (old-technology monopolist (newspaper) suppressed entry of rival with newer technology (radio))
    - *Kodak* (2d Cir. 1979) (largely rejecting claims arising from introduction of new product incompatible with rival's product)
- Collusion
    - *Auto Mfrs. Ass'n* (C.D. Cal. 1979) (collusion to limit R&D)

But the connection between competition and innovation was not well understood

- Ambivalence in the law
  - *Alcoa* (2d. Cir. 1945) notes then-common belief "that immunity from competition is a narcotic, and rivalry is a stimulant, to industrial progress"
  - *Trinko* (US 2004) the opportunity to charge monopoly prices "induces risk-taking that produces innovation and economic growth"
- Competing views in the economic literature
  - Schumpeter vs. Arrow

Cautious implications were drawn for policy

- Kaysen & Turner (1959)
  - promoting “progressiveness” is an important antitrust policy goal, but did not advocate taking it into account in identifying or remedying unreasonable market power
- Posner (1979)
  - the relationship between competition and innovation is too unreliable to serve as the basis for enforcement
- US enforcement agencies (late 20th century):
  - price and innovation effects of firm conduct generally go in the same direction, but the agencies did not offer more analysis
    - Horizontal Merger Guidelines (1992); Farrell (2001)

Antitrust is becoming more innovation-centric: enforcement

- US enforcement agencies today commonly allege innovation effects when mergers are challenged in high-tech industries
  - Innovation is sometimes the subject of substantial analysis independent of price effects
- Increasing concern with harm to competition in future products
  - Exclusionary conduct (monopolization): *Microsoft* (DC Cir. 2001); Facebook complaints (FTC 2020; states 2020)
  - Merger enforcement: Visa/Plaid merger complaint (DOJ 2020)

Antitrust is becoming more innovation-centric: economics

- Empirical connection between enhanced competition and greater industry and firm productivity
  - Bloom & Van Reenen (2010); Holmes & Schmitz (2010); Backus (2020)
- Empirical connection between greater domestic competition and improved international competitiveness (across nations)
  - Porter (1990); Lewis (2004)
- Empirical support for a connection between enhanced competition and greater industry innovation on average
  - Also reasons to question the antitrust relevance of empirical and theoretical analyses suggesting an “inverted-U” relationship
- Improved economic understanding of the ways antitrust enforcement and remedies can foster innovation
  - Gilbert (2020); Federico, Scott Morton & Shapiro (2020); Baker (2007)

Loss of competition can harm innovation: mergers and merged firm R&D

- A merger between rivals developing new products may alter the merged firm's R&D incentives
  - Internalization of business stealing (akin to unilateral price effects)
    - Horizontal Merger Guidelines (2010)
- Enforcement examples
  - When competing today confers an advantage in developing next generation products
    - *E.g.*, Thoratec/Heartware (FTC 2009)
  - When the firms have general R&D capabilities for developing future products and few or no other firms have similar capabilities
    - *E.g.*, Nielsen/Arbitron (FTC 2013); Applied Materials/Tokyo Electron (DOJ 2015)

Loss of competition can harm innovation: mergers and non-merging firm R&D

- A merger between actual or potential innovation rivals may also harm competition by discouraging R&D investment by *non-merging* firms

- Beyond the cases: hypothetical example involving customer foreclosure (exclusion)

Loss of competition can harm innovation: mergers & non-merging firm R&D

- Suppose small firms have an incentive to let their products be used on rivals' platforms and to open their platforms to rivals' products
- If a merger creates a dominant firm, it might change strategy, as by upgrading its products in ways that increase customer switching costs
  - Preventing its products from being used on rivals' platforms and closing its own platform to rivals' products
- Increased customer captivity might foreclose rival access to customers, making it harder for smaller rivals to sell their product upgrades
- Those rivals may be led to reduce their R&D efforts and industry R&D may be reduced overall (relative to a but-for world without the merger)

Loss of competition can harm innovation: exclusionary conduct

- A dominant firm can harm innovation by excluding future (nascent) competition
- Strong network effects or scale economies often generate concentrated markets
- The most critical competition can come from potential or fringe rivals
- Exclusionary conduct can suppress this key competitive force

Loss of competition can harm innovation: exclusionary conduct (cont'd)

- *Microsoft* (D.C. Cir. 2001) (en banc)
- "[I]t would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will—particularly in industries marked by rapid technological advance and frequent paradigm shifts."
- The violations upheld were largely exclusive dealing contracts that foreclosed nascent rivals from access to customers
- The court accepted that competition could be harmed when product improvements exclude rivals, as by preventing interoperability
  - But it expressed skepticism about such claims

Will stronger antitrust enforcement harm innovation?

- Dominant firm's appropriability defense
  - The challenged exclusionary conduct benefits R&D by increasing its return on successful R&D
  - thereby increasing its incentive to make R&D investments
  - (perhaps implicitly) thus enhancing industry incentives to innovate overall (accounting for both the dominant firm and excluded rivals)
- Could be offered as a reason the conduct does not harm competition or as an argument against a particular remedy
  - Mixed reception in the US courts

When not to credit a dominant firm's appropriability defense

- Reasons overall industry innovative effort may not decline (or not decline much), if exclusionary conduct is forbidden
- (1) The dominant firm may still expect to receive a huge reward for successful innovation, so still invest heavily in R&D
  - E.g., rapid market growth, steep scale economies, strong network effects, sale of complementary products, or high customer switching costs
- (2) Countervailing force: when rivals invest more in R&D, the dominant firm may invest more in response
  - E.g. when it reasonably expects to keep a high market share if it and rivals all develop new products, or it expects to lose a lot of business if rivals develop new products but it does not
- (3) The gain in rival R&D may outweigh the loss in dominant firm R&D

Competition policy and innovation

- Antitrust law and enforcement are becoming more innovation-centric
- Antitrust law properly accepts a general presumption that greater competition enhances the prospects for innovation
- Under some circumstances, it is possible to undertake a case-specific analysis of the innovation effects of firm conduct

Antitrust and inequality

Social and economic costs of inequality

- Some inequality is inevitable in a market economy
  - Prospect of economic success encourages effort, innovation, and investment
- But all do not necessarily benefit, and inequality also creates costs
- Inequality may reduce economic growth
  - Financial hardship & credit market imperfections reduce ability to invest in education & training, change jobs, learn new skills, or start new businesses
  - Harms morale and work effort of those left behind
  - Insufficient provision of public goods that benefit non-wealthy, even if those goods would foster overall economic growth
- Inequality may tilt public policy to favor the interests of the wealthy
  - "Vicious" public policy cycle could threaten democracy
- Inequality may undermine the legitimacy of the social order
  - Lessens sense that everyone has a fair opportunity and equal voice
- Inequality may be objectionable morally

Market power increases inequality

- Producer surplus from market power accrues primarily to top executives & shareholders
  - Top 1% (in wealth) hold 50% of stock & mutual fund assets (in the US)
  - Top 10% hold 91% (81% accounting for retirement plan ownership)
  - Decline of private sector unions limits extent to which workers can appropriate market power rents
- Market power contributes to inequality regardless of whether it is achieved and exercised "legitimately" in current US antitrust terms

Possible antitrust policies to address inequality: options for discussion

- Increase and focus agency enforcement
  - Increase antitrust agency budgets
  - Exercise prosecutorial discretion to prioritize cases that benefit the less advantaged
  - Design remedies to benefit the less advantaged
- Rebalance toward more interventionist antitrust standards
- Recognize excessive pricing by dominant firms as an antitrust offense
- Adopt reduction in inequality as an explicit antitrust goal

Increase and focus agency enforcement (under current law)

- Increase antitrust agency budgets
  - Agency enforcement constrained by budgets
  - How best to use scarce tax dollars to address inequality?
- Focus agency priorities
  - Continue to prioritize food, healthcare, fuel industries
  - Reduce priority on cases where the victims tend to be wealthy or the exercise of market power benefits the less advantaged
  - Increase priority on cases where anticompetitive conduct harms workers
- Design remedies to benefit the less advantaged

Rebalance toward more interventionist antitrust standards

- More interventionist legal standards are needed to address growing market power
  - Existing US antitrust rules insufficiently deter anticompetitive conduct or go too far to avoid chilling procompetitive conduct
- Inequality concerns add an additional justification for shifting the error cost balance toward greater deterrence
  - Because inequality augments the social harms from under-deterrence
- Implement more interventionist substantive standards, presumptions and/or procedural rules affecting access to the courts
  - In the US, either through judicial interpretation or legislative action

Excessive pricing as antitrust offense

- EU competition law recognizes excessive pricing by a dominant firm as "abuse of dominance" ("exploitative" conduct)
  - Very few cases, however
- US Sherman Act is more narrow
  - Conduct element: agreement or exclusion
  - Monopolist with legitimately obtained and maintained monopoly power is permitted to charge high prices
- US law could adopt EU approach
  - To implement under the Sherman Act, legislation would be needed
- Would be controversial
  - Requires ongoing supervision of dominant firm prices by courts
  - "No fault" monopoly standards have been rejected in the past

Adopting reduction in inequality as an explicit antitrust goal

- Legislation could specifically identify distribution as an antitrust goal or mandate a broader "public interest" goal
  - Canadian merger law requires analysis of distributional impact
- Implementation could involve detailed distributional analysis
  - Is distributional analysis impractical for intermediate goods?
  - Priorities between poor vs middle class consumers?
  - How to treat taxes paid by corporations and rich stockholders if government revenues are distributed to favor the less wealthy?
- This approach may insulate from challenge collusive conduct by (or benefiting) lower income groups
  - Concerted monopsony conduct by consumers targeting payday lenders?
  - Collective bargaining efforts by non-union workers?
  - Agreement among auto companies to jointly price entry level cars low and luxury cars high?

Which options are most likely to gain traction today?

- Increase and focus agency enforcement
  - Increase antitrust agency budgets
  - Exercise prosecutorial discretion to prioritize cases that benefit the less advantaged
  - Design remedies to benefit the less advantaged
- Rebalance toward more interventionist antitrust standards

- Recognize excessive pricing by dominant firms as an antitrust offense
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Conclusion

- Antitrust law and enforcement can help to foster innovation and to combat inequality
  - Competition policy adjustments can complement other policies
- Stronger antitrust enforcement alone would help
- Targeted approaches can do better but are limited by the extent of our economic knowledge
- Stronger antitrust enforcement will enhance innovation incentives and lessen inequality on average
  - Research agenda: learn more about how to target enforcement priorities and remedies to address innovation and inequality concerns