REVIVING MERGER CONTROL

A COMPREHENSIVE PLAN FOR REFORMING POLICY AND PRACTICE

John Kwoka
Northeastern University

October 9, 2018

Finnegan Distinguished Professor of Economics, Northeastern University, and Board Member and Senior Fellow, American Antitrust Institute. The views expressed herein are my own and do not necessarily reflect those of AAI. This monograph remains a work in progress. Comments welcome.

TABLE OF CONTENTS

1. INTRODUCTION

From the 1970s until a few years ago, many observers concluded that antitrust was in retreat. True, a case against Microsoft was brought, the vitamin cartel and some others were prosecuted, and mergers were occasionally stopped, but overall in that period, a more permissive, free-market oriented approach took root. This assessment of policy was supported by abundant evidence in academic research and writing[1] and expressed succinctly by the Wall Street Journal. That publication–hardly an activist medium--declared that "the federal government has nearly stepped out of the antitrust enforcement business, leaving companies to mate as they wished."[2]

A number of forces contributed to this paradigm shift, two in particular deserving attention. The first was the Chicago School of economics. The Chicago School view of markets emphasized efficiencies from mergers and various business practices, saw entry as dissipating any transient market power, and argued there were greater risk and costs from errors of commission–challenging harmless or procompetitive practices–than from errors of omission in which harmful practices were tolerated. The result was that true competition problems were viewed as infrequent and that antitrust policy had a correspondingly limited role.

The second contributing force has, ironically, been the rise of a modern school of competition economics that developed in response to the Chicago view by more carefully identifying anticompetitive market practices, strategies, and structures. This new school[3] has had considerable success in re-establishing certain competition concerns where advances in economic theory and evidence have been most compelling–specific types of mergers, for example. Paradoxically, however, these very advances in certain dimensions have further diminished the status of other competition concerns that are of equal, and sometimes greater,

---

[1] Jon Baker and Carl Shapiro, "Reinvigorating Horizontal Merger Enforcement," in *How the Chicago School Overshot the Mark*, R. Pitofsky, ed., Oxford, 2008

[2] Dennis Berman, "The Game: Handicapping Deal Hype and Hubris," *Wall Street Journal*, Jan. 2016.

[3] This movement is less a school than an eclectic assortment of advances. Some observers have identified a "post-Chicago" school, but the counter-Chicago movement is broader than that.

importance, simply because the economics has not advanced to the same degree. The result has been that challenges to mergers has increasingly devolved into narrow econometrics-driven exercises in such metrics as consumer substitution, diversion ratios, critical loss analysis, and upward pricing pressure. These have substantially replaced multi-faceted concerns over the "lessening of competition."[4]

But with remarkable speed, a rather different view of competition and antitrust has recently burst upon the scene. A considerable number of economists, policymakers, and others have come to argue that these dueling perspectives have resulted in antitrust policy and practice that have been too permissive, in particular allowing mergers and other practices that have resulted in significant increases in concentration and considerable harm to consumers.[5] Not all observers are convinced, of course, and the evidence continues to be debated. But the totality of evidence makes a persuasive case that concentration in the economy has risen, that competitive forces have been blunted, and that policy failures have contributed significantly to those problems.

This essay begins where that discussion leaves off. It accepts those conclusions and moves on to the question of what should be done to remedy these failures of policy and practice. It sets out a comprehensive program of broad and bold policy reforms that are necessary to restore the vitality of merger control and thereby renew its important role in protecting competition in our economy.

To be sure, there have already been various specific reforms proposed and discussed in conferences, white papers, and even some legislation. The reform program proposed in this paper is, however, different in two important respects. First of all, rather than advancing one or two reform proposals, it is a fully comprehensive program. It consists of a full array of specific substantive reforms as well as some procedural reforms. Moreover, while each reform has merit, this package is an integral whole rather than a menu of alternatives among which to choose. The

---

[4] The latter continue to be raised, but recent trials and resolutions now focus on metrics.

[5] Some have also argued that mergers and rising concentration has had other adverse effects, including on income inequality. See, notably, Jon Baker and Steven Salop, "Antitrust, Competition Policy, and Inequality," *Georgetown Law Journal*, 2015.

problems of current merger control policy are numerous, so that the necessary reforms are equally numerous and should be viewed as an integral whole. Secondly and importantly, this package of proposals is rooted in modern economic theory and the best available empirical evidence. The proposals are not simply interesting or seemingly sensible ideas–though, at a minimum, they surely are that. Rather, each follows from current understanding of market competition, from statistical evidence from past experience, and from lessons about the practical application of economics to policy.

What ultimately connects all of the particulars to be discussed is the proposition that mergers can harm "competition," and that harm to competition is not adequately represented by current frameworks for analyzing mergers, by current methodologies for predicting the effects of mergers, and by common techniques for addressing the competition problems that arise from a merger. But simple appeals to "competition" are not sufficient since they do not operationalize that notion. Rather, for this to achieve its purpose, renewed attention to competition must be operationalized, must mean something that can be implemented and used, and ultimately must restore the vitality and effectiveness of merger control policy and practice in the U.S.

What follows is such a program. It consists of ten specific proposals–seven substantive reforms and three process reforms. The seven substantive components themselves fall into three categories. The first category consists of changes in the manner current enforcement proceeds. These are as follows:

(1) The Guidelines: The agencies must strictly enforce the Horizontal Merger Guidelines, reversing the trend to laxer rules and even laxer practice.

(2) The structural presumption: Merger policy should place greater reliance on the so-called structural presumption that certain high-concentration mergers are essentially always anticompetitive.

(3) Efficiencies: The agencies need to adopt a more skeptical view of merging firms' claims of efficiencies and other benefits from mergers

The second substantive group involves matters that current policy does not sufficiently address. These three are as follows:

(4) Potential competition: The agencies must restore the doctrine of potential

competition, which states that mergers eliminating an important potential competitor can be anticompetitive

(5) Impediments to entry: Antitrust needs to challenge mergers that create barriers to new entry and the growth of small firms, with particular attention to vertical mergers.

(6) Nonprice effects: The agencies must better evaluate mergers for their possible anticompetitive effects on nonprice outcomes, notably, innovation. .

The final substantive component is a practice too often engaged in by the agencies:

(7) Remedies: The agencies must sharply limit the use of remedies,particularly conduct remedies, as alternatives to prohibiting mergers.

The three process reforms are as follows:

(8) Retrospective studies: The agencies should routinely conduct retrospective studies of the outcomes of past mergers and their own policies toward them.

(9) Resources: The increasing demands on the antitrust agencies, require more resources in order for them to conduct necessary investigations and challenges.

(10) The judiciary: The judiciary must be educated in modern competition analysis in order to be better able to evaluate and judge the cases brought before them.

This essay will explain the need for each component of this reform package and the economic and policy basis for it. Before doing so, however, I begin with two brief overview sections to provide background for the proposals.[6] The first of these describes the evolution of economic thinking that has led to the present diminished state of merger control policy and practice. The second introductory section summarizes the evidence of the actual decline in competition in the U.S. economy. These two sections constitute the foundation for the specific proposals for reform, proposals that are set out in the two major sections that follow. Section IV focuses on the seven substantive proposals and their economic justification, while Section V addresses the three process-oriented proposals and the practical considerations that motivate them. Section VI notes a four additional issues that need further attention, while Section VII

[6] Readers thoroughly familiar with both the evolution of merger policy as well as the evidence regarding the current state of competition might go directly to proposed reforms–although the reforms are best understood in light of policy changes and current competition.

offers some concluding observations.

2. THE EVOLUTION--AND EROSION--OF MERGER CONTROL

Merger control in the United States is guided by a statutory prohibition on those consolidations whose effect "may be substantially to lessen competition, or to tend to create a monopoly." The original interpretation of the statute by the courts and the Justice Department led to an aggressive structure-based policy, one that found competitive threats even in mergers of fairly modest size. Indeed, the very first Merger Guidelines, promulgated in 1968, stated that in a “highly concentrated market”–defined as one where the four-firm concentration ratio exceeded 75 percent–a merger between two 4-percent firms would “ordinarily” be challenged as anticompetitive.

This stringent policy reflected the then-current view that market structure largely determined performance, and that most increases in concentration reduced competition, at least to some degree. This “structural” view of competition came under withering criticism by the Chicago School of Economics in the 1960s and 1970s. The essence of the Chicago School view was that, to the extent structure mattered, it was only one of many factors and not by itself a reliable predictor of competition. Rather, high concentration was at least as likely the result of firms’ superiority in the market–lower cost or higher quality–but even if not, high concentration would trigger entry by new firms that would quickly erode any market power that might temporarily arise. Advocates of the Chicago School also disputed the evidence on which the structural view rested, casting doubt on data, model specifications, and the presumed causal association between concentration and noncompetitive outcomes. And it argued that some of the more assertive merger cases of that time were not just mistaken but actively interfered with normal market processes.[7]

More recently, the Chicago School approach has been shown to be overly simplistic,

[7] Although cases like Von’s Grocery were more than a half century ago, critics of merger policy routinely raise it as a specter against any reforms.

often unrealistic, and consequently misleading in many implications.[8] Entry is not as easy as free market advocates assume–not even in their once-favorite example of a supposedly "contestable" market, namely, airlines. Large firms and high concentration are in fact associated with market power and profits not explained by efficiencies. Anticompetitive practices such as foreclosure and predation, once deemed irrational, are nonetheless observed. As a consequence of the Chicago critique, however, a more nuanced version of market competition has emerged–one that is much better founded in theory than the old structural view, but also much less accepting of the view that the free market inevitably works best.

The Chicago School view of markets had enormous influence on merger enforcement. Some of these changes are reflected in the sequence of Merger Guidelines that followed the original version in 1968. The 1982 Horizontal Merger Guidelines are perhaps best known for advancing a new measure of concentration (the HHI index[9]) and a new method for defining markets, both of which are widely accepted improvements in merger analysis. But they also substantially relaxed and narrowed the numerical standards for the levels of concentration and shares triggering competitive concerns. They defined a high concentration industry as one with an HHI in excess of 1800, and a competitively problematic merger as one increasing HHI by at least 100–both values well above the previous equivalent thresholds. Moreover, the 1982 revision weakened the presumption that structure itself might be nearly dispositive. Rather, they made clear that other factors were also important and would generally be considered in any agency review of a merger.

Most of these changes were well-founded–few economists would defend the prior numerical thresholds–but they foreshadowed further change that resulted in a progressively more accommodating merger policy. A 1984 revision of the guidelines enlarged the scope for parties to employ an efficiencies defense to a merger, shifting from a declaration that they would be considered only in "exceptional" circumstances to language that made clear that they agencies

---

[8] Among many critiques, see the various essays in Pitofsky, op. cit.

[9] HHI is the sum of squared shares of all firms in the market. If all firms are identical in size, HHI equals 10,000/N, but more realistically it is greater–often much greater–as the N firms have different shares.

would consider efficiencies in all cases. The subsequent 1992 revision introduced the important unilateral effects framework for assessing competitive harms from certain mergers, but they also elevated and made more explicit the nature of the entry defense to an otherwise problematic merger. In 1997 the Guidelines articulated yet more specific criteria for cognizable efficiencies.

This succession of guidelines is notable for its increased grounding in economics. The broad and skeptical perspective toward mergers reflected in the first guidelines were replaced with a more formal and more precise framework rooted in economics. Markets were to be defined based on small but significant and nontransitory increases in price. The Herfindahl-Hirschman Index replaced the familiar four-firm concentration ratio. Mechanisms of competitive harm from each merger would be explained rather than presumed. Unilateral effects could be evaluated using diversion ratios and upward pricing pressure. Criteria for cognizable efficiencies and for entry were specified.

These changes were in no small part responses to the Chicago critique by economists who did not share that school's faith in the market and skepticism about the antitrust mission, but who accepted the challenge to provide a sounder foundation for merger control. In this, they succeeded. An older and often dubious foundation for merger control was replaced with one based on sophisticated economic modeling. The new framework and techniques had the further virtue that they rested on objective and more measurable concepts. For these reasons, these changes succeeded in countering the Chicago school and, indeed, ultimately earned wide support in the economics profession and the antitrust community.

But these changes, meritorious as they were, have come at a price. Concern over "substantial lessening of competition" has devolved into a complex econometrics-driven analysis of market definition, diversion analysis, pricing pressure, and the like. Broad concerns about anticompetitive practices and effects have been replaced by the question of price increases on narrowly construed products. The new, precise theory of unilateral effects from mergers has made it even more difficult to sustain the less formal but equally important concern over coordinated effects. Belief that merger effects can and should be predicted in each case has led to the abandonment of presumption against any mergers. Receptivity to efficiency arguments has prompted merging firms routinely to make expansive claims about cost savings and other benefits. Agencies' view that merger concerns can be resolved by targeted remedies has resulted in fewer outright challenges and instead remedies of doubtful effectiveness.

The broad statutory concern over "lessening of competition" has, in short, been replaced by a narrow policy focus on certain issues, and a practice increasingly focused on questions where economic analysis is most powerful. In a few respects, the latest revision of the merger guidelines–issued in 2010--sought to strike a somewhat different balance. They addressed, albeit briefly, competitive concerns with nonprice effects from mergers. They restated the proposition that a merger eliminating a potential competitor would be subject to scrutiny. And they said that mergers above certain thresholds were "likely to be presumed" anticompetitive–although the effect of this statement is diminished, perhaps negated, by inclusion of the term "likely to be" rather than simply "presumed,"

These represented minor improvements over prior guidelines, although in other respects, the guidelines continued their evolution toward a narrow policy. They completed the full integration of unilateral effects analysis into merger control, which inadvertently has made traditional merger concerns involving coordination more difficult to advance. They integrated efficiencies fully into that analysis, in contrast to the status of efficiency claims in prior guidelines and court dicta. Importantly, the 2010 guidelines further relaxed the numerical concentration thresholds for a problematic merger, now defined as a merger that increased HHI by 200 points in a market with HHI in excess of 2500.

The result of this long process is a merger control regime that is methodologically much more sophisticated but considerably more accommodating to mergers than in the past. It has effectively replaced concern over "substantial lessening of competition," with all the meanings of that term, with a series of narrow queries and views of anticompetitive outcomes. While this approach has strengthened some analytical foundations of merger review, its narrow focus has diminished attention to broader concerns, and thereby facilitated rising concentration and diminished competition more generally, as the next section will document.

3. THE EVOLVING–AND ERODING–STATE OF COMPETITION

In April 2016, the President's Council of Economic Advisors issued a brief on the state of competition in the U.S. economy. It cited "several indicators suggest[ing] that competition may be decreasing" and offered some possible explanations for the decline.[10] One of those explanations was weakness of competition policy. The CEA brief was a milestone in the public debate about competition in the U.S. economy and the role of policy, but it was scarcely the only such discussion or document. Both before and after the brief was issued, a number of studies and reports had been examining these issues, and many had concluded that antitrust policy indeed bore at least some responsibility–perhaps considerable responsibility--for the changes in concentration and competition.

The purpose of this section is not simply to review those studies, since there now are a number of good summaries of that literature.[11] Rather, the purpose is to formulate the issues in terms of the underlying economics of competition. That involves, first, identifying the characteristics of a competitive market and then, second, organizing the empirical evidence in terms of its those characteristics. This approach provides a sounder basis for our conclusion about the state of competition than, for example, simply observing increases in concentration or high profits, and then drawing some conclusions. It also serves as a foundation for the specific policy recommendations in the subsequent sections, making clear that they follow from the underlying economics of markets and competition.

This framework is built on three economic propositions that define and determine a competitive market. These are as follows:

(1) A competitive market is characterized by a substantial number of sellers and buyers, with due allowance for any economies associated with size.

---

[10] "The Benefits of Competition and Indicators of Market Power." CEA, April 2016

[11] See, for example, "A National Competition Policy," American Antitrust Institute, September 2016: Jon Baker, "Market Power in the U.S. Economy Today," Washington Center for Equitable Growth, March 2017; Jay Shambaugh, Ryan Nunn, Audrey Breitwieser, Patrick Lu, and Becca Portman, "16 Facts about Competition and Dynamism, Brookings, June 2018; Carl Shapiro, "Antitrust in an Age of Populism," *International Journal of Industrial Organization*, 2018.

(2) In competitive markets, entry and growth of new firms, and exit of existing firms, should be relatively easy, free of obstacles, and frequent.

(3) Profits in competitive markets should be at normal levels, except for temporary deviations due to market disequilibria.

These three propositions highlight characteristics of a well-functioning market–low concentration, ease of entry, and moderate profits-- and, where they do not hold, represent indicators of diminished competition. Thus, if firm numbers decline and concentration rises over time, absent evidence of changes in underlying economies, that would represent an indication of weakening competition since the remaining fewer firms would become more capable of a variety of anticompetitive actions and strategies. Entry and growth represent market responses to economic opportunities and changed conditions, responses that restore competition where it has weakened. If, however, entry, growth, and exit (of weak or inefficient firms) are impeded or do not occur, that would signify declining dynamism and competitiveness of these markets. And if profits are excessive and persistent, that would suggest some combination of fewer incumbent firms, inadequate entry, and anticompetitive strategies.

What follows is a summary of the evidence supporting each of these concerns.[12] Even with certain data limitations, the totality of evidence leaves no doubt about the decline in competitiveness in the U.S. and the role of overly permissive competition policy in that decline.

3.1 Increasing Concentration

Concentration data at the level of the economic or antitrust market are not generally available, so that most studies and research have had to settle for either more aggregated measures in order to get comprehensive coverage of industries, or alternatively, more precise measures but on a modest number of sectors. The originally cited CEA report contained some of both types of evidence: it referenced detailed studies of rising concentration in a few fairly well-defined sectors--hospitals, wireless carriers, and rail transportation–but it also reported data on the rising revenue share of the top 50 firms in two-digit sectors.[13]

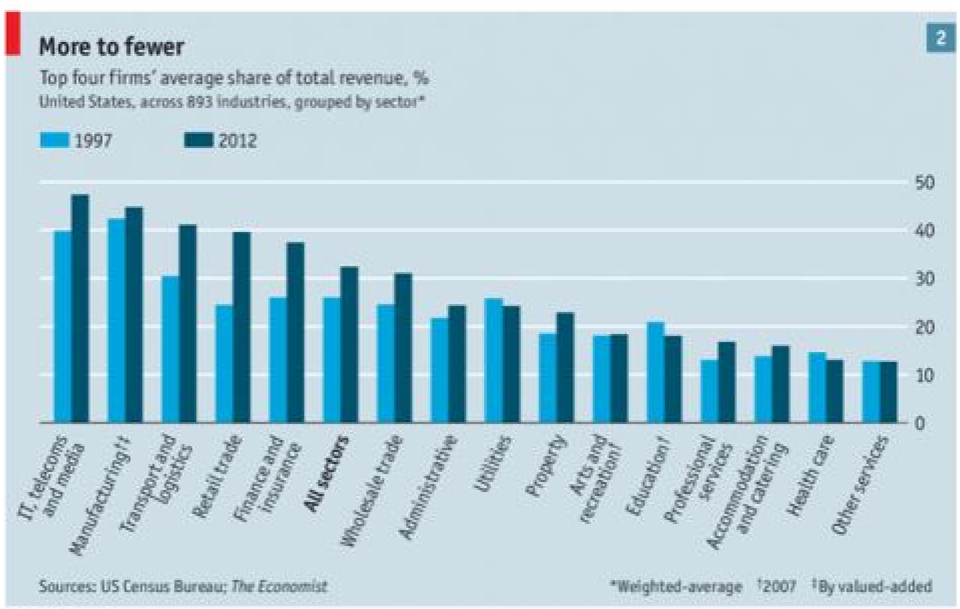
---

[12] Interested readers can follow the cited materials for further information.

[13] It acknowledged that both the two-digit sectoral level ("transportation and warehousing") and the top-fifty firm aggregation were overly aggregated, but critics have

The implications of the CEA Brief have been corroborated by a number of other reports measuring changes in concentration on a more disaggregated basis. *The Economist* collected data on more than 900 sectors of the U.S. economy and reported that over a fifteen year period concentration increased in two-thirds of them.[14] Figure 1 from their report summarizes its evidence by sector.

FIGURE 1



While the average concentration levels across all sectors remained modest, the total revenue shares of the more concentrated sectors have grown rapidly. This implies that overall concentration is rising faster than the average suggests, due to the rising importance of the more concentrated sectors. Autor et al[15] have examined nearly 700 industries in the U.S. economy and find that since 1987 concentration has broadly increased in the manufacturing, finance, services,

---

nonetheless pounced on this table as if the conclusions in the CEA Brief rested entirely on it. See, for example, Gregory Werden and Luke Froeb, "Don't Panic: A Guide to Claims of Increasing Concentration," 2018.

[14] "Too Much of a Good Thing: Profits Are Too High. America Needs a Giant Dose of Competition," *The Economist*, March 2016.

[15] David Autor, David Dorn, Lawrence Katz, Christina Pattterson, and John Van Reenen, "Concentrating on the Fall of Labor Share," *American Economic Review*, May 2017

and wholesale trade sectors. Their findings are robust to alternative measures of concentration and also to controls for import competition. Grullon et al[16] study data on publicly traded companies in the U.S. and report that measured concentration in fact declined during the 1980s and into the 1990s. Beginning in the late 199s up through 2014, however, they find that concentration rose for three-quarters of all sectors, and by an average of 50 percent.

Despite some limitations of the data,[17] this body of literature provides considerable support for the proposition that measured concentration has been steadily and widely increasing throughout US markets at least since the mid-1990s. There is no indication that this effect has been the result of equally widespread changes in economies of scale, apart, of course, from certain tech and platform companies. It is also noteworthy that there appear to be no studies showing the contrary, that concentration has in fact been decreasing during this time in the U.S. economy.

3.2 Declining Entry and Growth

Higher concentration could be a transient phenomenon, overtaken by entry of new firms into the market and growth of smaller firms that bring competition to their markets. Here, too, the evidence contradicts that and instead finds increases in entry barriers, reduced rates of entry, and declining populations of firms. The CEA Issue Brief displayed firm entry and exit rates in the U.S. economy between 1980 and 2010. Reproduced here as Figure 2, this chart shows that while firm exit rates remained roughly constant over this period, the firm startup rate has been in long-term decline. In recent years the pace of that decline has picked up speed, with the startup

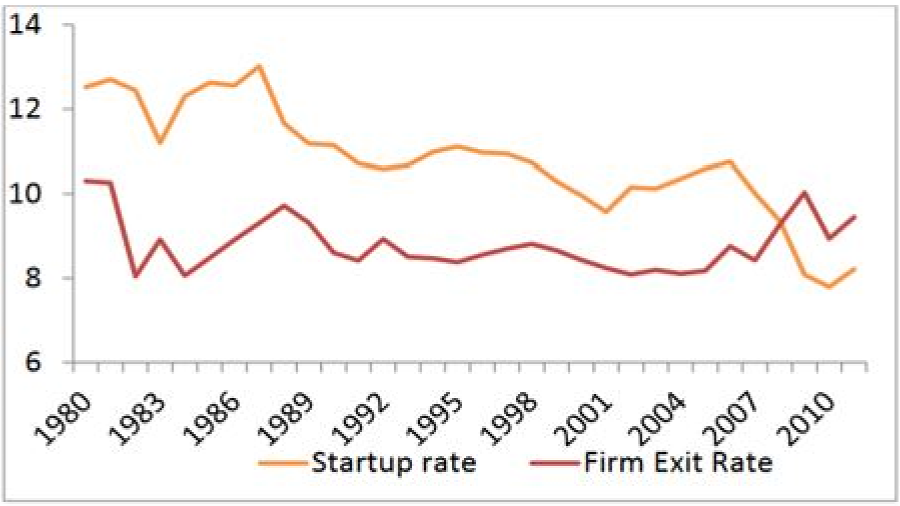
[16] Gustavo Grullon, Yelena Larkin, and Roni Michaely, "Are U.S. Industries Becoming More Concentrated?" October 2016.

[17] Some have urged caution, recommending further study of concentration changes at the level of the economic or antitrust market. But such studies would almost certainly need to be done by the agencies, which have shown no such inclination. Moreover such studies would require examination of millions of narrowly defined antitrust markets for a comprehensive overview. Consider, for example, the market definition in the Steris-Synergy merger–contract sterilization of medical devices, pharmaceuticals, and other products–or in the Staples-Office Depot attempt at merger–"consumable office supplies sold through office superstores" in cities or parts thereof. In airlines, there are more than ten thousand city or airport pairs, each of which has been treated as an antitrust market. Pleas for more studies are, accordingly, invitations to postpone needed action.

rate falling by half over the past ten years or so.

FIGURE 2

Reduction in dynamism:
Firm entry and exit rates, 1980-2010



Decker et al[18] have studied "young" firms in the economy, defined as those less than five years old. They report that over the past 30 years such firms account for a declining share of all firms, new jobs created, and total employment. The previously-cited study by Grullon et al[19] finds that the number of publicly traded firms has been in long-term decline. As shown in Figure 3, that number peaked in the mid-1990s and has been falling ever since, by nearly 50 percent over the past twenty years, down to the level of the 1970s when the economy was roughly one-third is present size. A recent NBER study authored by Doidge et al[20] confirms these numbers

[18] Ryan Decker, John Haltiwanger, Ron Jarmin, and Javier Miranda, "The Role of Entrepreneurship in US Job Creation and Economic Dynamism," *Journal of Economic Perspectives*, 2014.

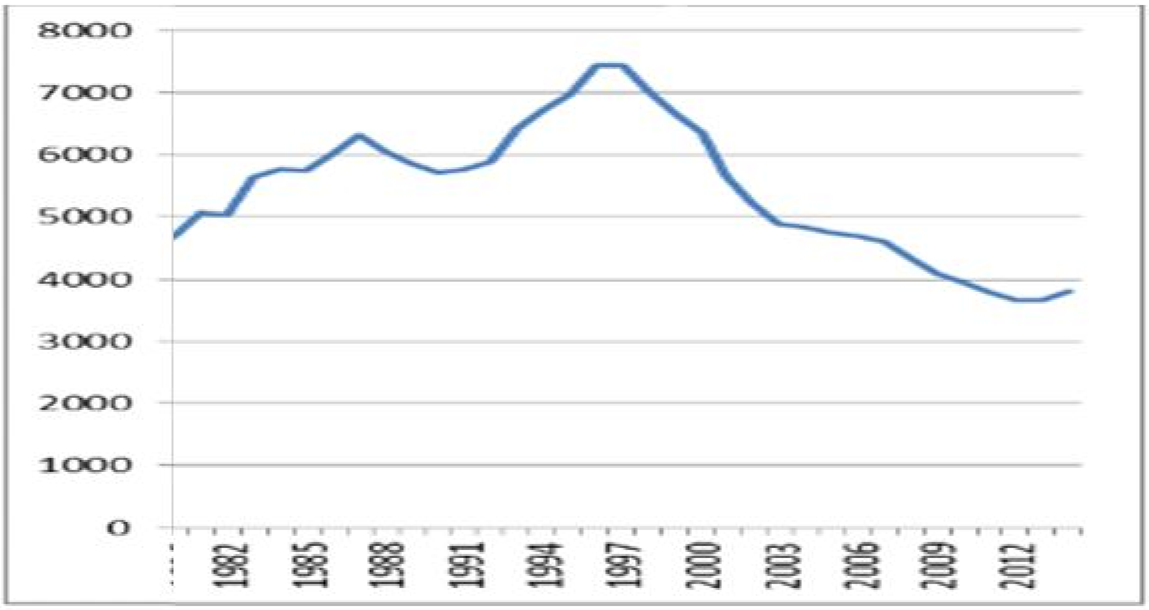
[19] Ibid. Corroborating this, the Wiltshire 5000 Index no longer contains 5000 companies. Thanks to Rich Gilbert for this factoid.

[20] Criag Doidge, Kathleen Kahle, G. Andrew Karolyi, and Rene Stulz, "Eclipse of the Public Corporation or Eclipse of the Public Markets?" NBER, January 2018.

and further reports that more than 60 percent of firm disappearances are due to merger.

FIGURE 3

Declining population of public firms:
Numbers, 1982-2012



The cause of these changes is difficult to determine since comprehensive data on entry conditions across all industries do not exist. There is, however, good evidence of the rise of artificial barriers to entry in a few sectors, notably, various occupations. While entry into some occupations is justifiably limited by training requirements, certification, and licensing, that cannot be said of the strict licensing requirements imposed by some states on businesses such as florists, upholsterers, fortune tellers, beekeepers, chimney sweepers, junkyard dealers, turtle farmers, and rainmakers.[21] In these cases licensing is transparently a device to prevent entry.

The CEA Brief reported that the fraction of workers in the economy covered by occupational licencing has risen dramatically, from about 4 percent in the 1950s to nearly 30 percent by 2008. In addition to licensing, non-compete agreements, no-poaching and no-hiring

[21] For a more extensive list of 50 that are licensed in *every* state, see Adam Summers, "Occupational Licensing," Reason Foundation, 2007.

agreements, non-disclosure requirements, and other restrictions on labor mobility and entry represent growing impediments into various professions and occupations.[22] Impediments to entry have also become more pervasive in a variety of important non-occupational settings as well. A short list would include some industry-specific practices such as certain distribution practices in brewing,[23] pay-for-delay agreements in generic drug introductions,[24] shelf space allocation methods in supermarkets,[25] patenting practices in the tech sector, and takeoff/landing rights–"slots"–in airlines.[26] Other impediments are less sector-specific,including those resulting from vertical integration (thus requiring multi-level entry by any competitor) and network effects (which can confront narrow entry with very low pricing by incumbents).[27]

All of these factors create or enhance obstacles to entry and growth and interrupt the normal adjustment process of markets. Importantly, there is considerable evidence that a great many of these are the direct result of deliberate–and often successful--efforts by firms to insulate themselves from competition from new or smaller firms.

3.3 Rising and Persistent Profits

If both concentration and entry barriers are significant, as the evidence indicates, economics predicts that profits will rise above normal levels and not be eroded by rival firms. This prediction is borne out by a range of evidence, including from several sources already referenced. For example, the same issue of *The Economist* that reported on rising concentration also provided data showing that profits as a fraction of GDP in the U.S. have risen to nearly at an

---

[22] For discussion, see Randy Stutz, "The Evolving Antitrust Treatment of Labor Market Restraints," American Antitrust Institute, 2018. Also, Alan Krueger and Orley Ashenfelter, "Theory and Evidence on Employer Collusion in the Franchise Sector," 2017.

[23] "Craft Brewers Take Issue with AB Inbev Distribution Plan," *Wall Street Journal*, December 2015. "Justice Department Investigates Beer Industry Anticompetition Accusations," *Reuters*, October 2015.

[24] For analysis of this practice and the FTC's successful effort to limit it, see Joseph Farrell and Mark Chicu, "Pharmaceutical Patents and Pay for Delay: *Actavis*," in John Kwoka and Lawrence White, *The Antitrust Revolution*, 7th ed., 2019.

[25] Among many analyses, see for example Leslie Marx and Greg Shaffer, "Slotting Allowances and Scarce Shelf Space," *Journal of Economics and Management Strategy*, 2010.

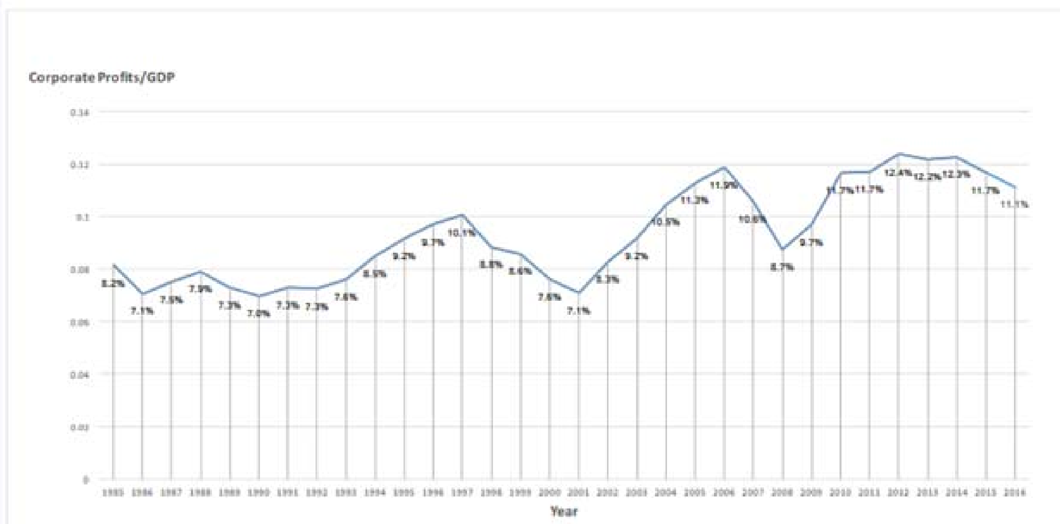
[26] "Seeking a Place at Airports," *New York Times*, January 2010.

[27] With respect to network effects, see Victor Aguirregabiri and Chun-Yu Ho, "Hub-and-

all-time high, as has return on capital adjusted for goodwill.[28] Similarly, Grullon et al find profitability to have risen over a twenty year period, primarily as a result of higher margins due to the rise in concentration.[29] Shapiro reports Census data showing that over the past thirty years the profit fraction of GDP has risen by 50 percent, from 7-8 percentage points to 11-12 percent, the latter an all-time high.[30] Figure 4 illustrates this trend. Deloecker and Eckhart's analysis of price-cost margins comes to a similar conclusion. As shown in Figure 5, price-cost margins in the U.S. economy have grown continuously and rapidly after 1980.[31]

FIGURE 4

Corporate Profits/GDP 1985 to 2016



Source: Bureau of Economic Analysis, Table 1.7.5, "Relationship of Gross Domestic Product, Gross National Product, Net National Product, National Income and Personal Income," Last Revised September 28, 2017, available at https://bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=3&isuri=1&1910=x&0=-9&1921=survey&1903=43&1904=1977&1905=2017&1906=a&1911=0.

Spoke Networks and Entry Deterrence," *International Journal of Industrial Organization*, 2010.

[28] *The Economist*, op. cit.

[29] Grullon et al, op cit.

[30] Shapiro, op. cit.

[31] Jan De Loecker and Jan Eeckhout, "The Rise of Market Power and the Macroeconomic Implications," NBER, April 2017

FIGURE 5

Sales-weighted Average Markups (1960 – 2014) in U.S. Economy

Some studies have investigated further questions such as the distribution of high profits, their persistence, and some of their causes. The CEA Brief reported that return on capital for a typical firm at the 90th percentile was more than five times the median, whereas 25 years earlier it was only twice as large. In addition, *The Economist* finds that a firm with a high rate of return on capital in 2003 had an 83 percent chance of still being very profitable a decade later. A decade earlier, this measure of persistence of profit was only 50 percent. Doidge's study finds that overall profits in the market are now divided among fewer winners than ever before and that more of the accounting profit accrues to firms whose core asset is intellectual property.[32] Blonigen and Pierce specifically examine the role of mergers and find that they result in higher profit margins rather than gains in productivity, compared to otherwise non-merging firms.[33]

The clear implication of these many studies is that, by our best measures,[34] profit in U.S.

---

[32] Doidge et al, op. cit.

[33] Bruce Blonigen and Justin Pierce, "Evidence for the Effects of Margers on Market Power and Efficiency," FRB, October 2016.

[34] It should be noted that the authors of these and other studies recognize the differences

industries is unusually large, has been growing, and is ever more concentrated across firms.[35] The evidence thus supports the third proposition, namely, that rising concentration and reduced rates of entry have in fact resulted in market power and excess profits.

3.4 Implications for Competition

This above evidence establishes that concentration, entry impediments, and profits in the U.S. economy have each been rising. More significantly, based on the economic framework linking concentration and entry impediments to excess profit, collectively these factors leave little doubt that competition in the U.S. economy has been in decline. To be sure, each study has its limitations,[36] but the totality of the evidence is persuasive since the various studies corroborate and reinforce each other by using different data, adding evidence, closing gaps, taking different perspectives, and so forth. And ultimately, as noted at the outset, there is no convincing explanation for the simultaneous rise in concentration, entry barriers, and profits other than declining competition in the U.S. economy.

This assessment of the state of competition also serves to expose some of the weaknesses of current merger policy and practice and thus helps to identify areas that need to be addressed in reforming and restoring merger control. Starting in the next section, we set out those reforms. We begin with seven substantive reforms, followed by three reforms to the process of merger

---

between accounting and economic profit, and correct the former wherever possible. None of the adjustments suggest that the reported effects differ between the two.

[35] Corporate profits are directly affected by tax laws, among other factors. This administration's recent $1.5 trillion tax cut directed at corporations and high income individuals has produced a corporate windfall and furthered the stock market boom. See James Mackintosh, "The Fed Worries about Corporate Monopolies, Investors Should Just Buy Them," *Wall Street Journal*, August 2018.

[36] All empirical work has limitations–limitations of data, modeling, statistical significance, etc. A common response of critics is simply to identify some limitation of a study and then to dismiss and disregard the study altogether, without establishing the importance of the limitation and without viewing the contribution of the study in the context of other literature. This "deconstructive" approach often reflects little more than dislike of the findings of a study, rather than an effort to learn what it has to offer. For a critique of the undue emphasis on statistical significance in drawing implications for policy, see Phillip Johnson, Edward Leamer, and Jeffrey Leitzinger, "Statistical Significance and Statistical Error in Antitrust Analysis," *Antitrust Law Journal*, 2017.

control.

4. SEVEN NECESSARY SUBSTANTIVE REFORMS

This section sets out the substantive reforms that are necessary to restore vitality to merger control policy. Most of these reforms follow directly from the above discussion of concentration, entry, and profits. We explain that connection; we explain each reform in detail; and we provide the economic evidence that supports the reform. This ensures that each reform is fully supported and integrated into a larger plan to reform merger control policy.

The first three of these proposal deal with the way certain issues are addressed in the Merger Guidelines and associated enforcement practice: enforcement of the Guidelines, the so-called structural presumption, and efficiencies. The following three proposals involve specific ways in which policy has defined competition concerns too narrowly, and as a consequence neither the guidelines nor current merger control practice adequately addresses the concerns. These are potential competition, entry barriers and exclusionary practices, and anticompetitive nonprice outcomes. The seventh and last proposal in this section focuses on the excessive use of remedies to resolve competition problems with mergers.

We begin by recalling that the guidelines are the basic framework for evaluating mergers. As such, they are supposed to reflect the best economic understanding about horizontal merger analysis, and are issued in order to inform the business community, the courts, and other interested parties about the actual practice of merger analysis. In reality, the guidelines do not describe actual merger control in practice. Enforcement practice is considerably more permissive than the stated guidelines. Moreover, in crucial respects the guidelines do not fully capture the best economic understanding about merger analysis. We begin with these points.

4.1 Enforce the Stated Merger Guidelines

As noted, the guidelines set out a framework for analyzing horizontal merger based on current economic understanding. The specific standards for what constitutes a competitively problematic merger have changed over time, from the stringent thresholds of 1968, to the more moderate standards of 1982, and now to the further relaxed criteria of 2010. But whatever the standards may be at any point in time, actual practice has been more permissive than the guidelines in fact provide–permitting, that is, mergers that ostensibly violate the guidelines and result in higher concentration in numerous markets. The first necessary reform of merger policy is to reverse this practice and enforce the guidelines as written.

The best evidence of permissive enforcement practice derives from two data sets published by the agencies themselves and hence not the subjects of dispute.[37] The first data set describes key characteristics of all the markets in which mergers were in fact challenged by the Federal Trade Commission and the Antitrust Division of the Justice Department in the years 1999-2003.[38] To put those these data in perspective, the Horizontal Merger Guidelines operative at the time stated that any merger raising HHI by more than 100 where the market HHI was already1800 was likely to be challenged. Table 1 here is a tabulation from the DOJ-FTC report of the frequency of merger challenges in markets with various levels of HHI concentration and of merger-related increases in HHI concentration. As shown, during this time the agencies challenged in some fashion mergers involving 1263 distinct product and geographic markets, arising from a total of 173 mergers. Clearly, however, very few mergers in markets with HHI less than 2000 were subject to challenges. Indeed, the lowest HHI for any challenged merger was said to be about 1400, while the median was an astonishingly high 4500-5000–a level consistent with there being only two similar size firms in the post-merger market. That is, nearly half of all challenges were to the extreme cases of mergers to duopoly, and only half involved mergers at any lesser level of concentration. Similarly, few mergers raising HHI by less than 300-500 were challenged.

---

[37] These have been compiled and reported in useful forms in my book *Mergers, Merger Control and Remedies: A Retrospective Analysis of U.S. Policy* (MIT Press, 2015, hereafter *MMCR*) and subsequent writings.

[38] "Merger Challenges Data," FTC and DOJ, 2004.

TABLE 1

Count of Markets in which the Agencies Challenged Mergers (1999-2003)

Post-Merger HHI	Change in the HHI								
	0-99	100-199	200-299	300-499	500-799	800-1,199	1,200-2,499	2,500+	total
0–1,799	0	17	18	19	3	0	0	0	57
1,799–1,999	0	7	5	14	14	0	0	0	40
2,000–2,399	1	1	7	32	35	2	0	0	78
2,400–2,999	1	5	6	18	132	34	1	0	197
3,000–3,999	0	3	4	16	37	63	53	0	176
4,000–4,999	0	1	3	16	34	30	79	0	163
5,000–6,999	0	2	4	16	9	14	173	52	270
7,000+	0	0	0	2	3	10	44	223	282
total	2	36	47	133	267	153	350	275	1263

Source: Federal Trade Commission and Department of Justice 2004

These clear implication of these data is that merger control practice has been substantially more cautious and permissive than the policy stated in the Guidelines. This is even more evidence from a second data set, which covers all the FTC's merger investigations between 1996 and 2011. The published data are a count of investigations and a count of challenges, by various firm and industry criteria.[39] Table 2 here reports calculations from my book *Mergers, Merger Control, and Remedies* of the percent of all investigations during that period that resulted in any type of enforcement action, according to the number of remaining significant competitors in the market.[40] Markets with HHI of 1800–termed highly concentrated-- must have at an

39 "Horizontal Merger Investigations Data, 1996-2011," FTC, 2013. Challenges are defined to include approvals of the mergers subject to remedies and abandonments of proposed mergers in the face of agency opposition.

40 A significant competitors is defined by the FTC as "a firm whose independence could affect the ability of the merged firms to achieve an anticompetitive outcome," that is, a firm that matters. FTC, 2004, n. 42. This number is a convenient single criterion that reflects both the level of and the merger-related change in concentration. The FTC report also contains tabulations of investigations and enforcement actions based on HHI and its changes that are fully consistent but somewhat less easy to interpret.

absolute minimum five or six significant competitors if they are of exactly equal size, and as a practical matter more like seven when their sizes vary.[41]

TABLE 2
Percent of agency investigations that were enforced by number of significant competitors over time (1996-2011)

Number of significant competitors	1996-2011 Percent enforced	1996-2003 Percent enforced	2004-2007 Percent enforced	2008-2011 Percent enforced
2 to 1	98.0	96.2	100.0	98.4
3 to 2	89.2	84.8	91.5	95.7
4 to 3	77.3	76.1	70.4	91.9
5 to 4	64.1	61.5	65.0	72.7
6 to 5	35.2	40.6	37.5	0.0
7 to 6	12.0	20.0	7.7	0.0
8 to 7	24.0	50.0	0.0	0.0
9 to 8	0	0.0	0.0	0.0

The first column in Table 2 reports that percentage over the entire 16-year period. As one might hope and expect, the likelihood of a merger being challenged rises systematically as the number of remaining significant competitors declines. Mergers, for example, that resulted in five remaining competitors were challenged about 35 percent of the time–not overwhelming, but indicating significant enforcement activity. The remaining columns break this down by three subperiods that can be identified from the sequence of FTC reports: 1996-2003, 2004-2007, and 2008-2011. Two implications of these data are noteworthy. First, for mergers resulting in four or fewer remaining competitors–that is, mergers in very high concentration markets–the likelihood of a challenge is undiminished and, indeed, has risen a bit over time. On the other hand, for mergers resulting in more than four remaining competitors, the likelihood of a challenge has systematically and precipitously declined. For those resulting in five remaining competitors, for example, the percent triggering some enforcement action fell from over 40

[41] Data suggest that in actual markets an HHI of 1800 is associated with about 7 or 8 sizeable–but not equal size–firms.

percent in 1006 to 2003, to 37 percent in 2004-2007, and then to zero thereafter. For all mergers resulting in more than four firms, the overall percent enforced was 36.2 in 1996-2003, but it dropped to 15.6 percent in 2004-07, and then to zero for all such mergers starting in 2008. That is, by 2008 the FTC had abandoned merger enforcement in these high-to-moderately high concentration markets.[42]

This record of diminishing enforcement represents a radical change in practice as well as a wholesale deviation from the policy articulated in the Merger Guidelines operative at the time. Remarkably, therefore, rather than reiterating the prior standards and committing to their enforcement, the 2010 revision of the guidelines actually raised these thresholds so that a presumptively problematic merger is not one with an HHI of 2500 and a change of 300.[43] This new standard validates past excessively permissive practice and further narrows the range of mergers presumed to raise competitive concerns and likely trigger enforcement action.

It can scarcely be doubted that these changes in merger control practice have contributed directly to the wave of consolidation in many U.S. industries over the past twenty years. After all, permitting a major category of previously challenged mergers can scarcely resul t in any other outcome. Anecdotally, merger after merger has transformed sectors ranging from airlines to brewing, finance to industrial chemicals, eyeglasses to drug stores, supermarkets to cable TV, hospitals to dog food, and countless more. A careful study by Chicago School scholar Pelzman reported evidence that “concentration, which had been unchanged for all of the 20th century, began rising at the same time that merger policy changed,” namely, with the 1978 publication of Bork’s treatise The Antitrust Paradox and the subsequent 1982 Merger Guidelines that reflected

[42] After its policy shift has become revealed by these data, the FTC seems no longer to be releasing updates of these statistics.

[43] The argument for loosening the standards in 2010, according to the then-Assistant Attorney General for Antitrust, was to close “the gaps between the Guidelines and actual agency practice.” Christine Varney, “An Update on the Review of the Merger Guidelines,” Jan. 2010. But if actual practice is unduly permissive, it is a double error to change stated policy in the guidelines to conform. Indeed, that makes it more difficult to bring cases with measured concentration near the new standard, likely creating another observed “gap” between policy and practice.

Bork's view of mergers.[44] Pelzman argues that "The 'reason' part of the rule of reason [which he attributes to Bork's influence] tilts the focus of policy toward highly concentrated mergers. The policy would be successful by its own lights if it deterred increased concentration in highly concentrated markets. Is this what happened after 1982? ....[T]his is a hard question to answer. But the best answer appears to be no." His evidence is that concentration began rising in highly concentrated markets at the same, higher rate that previously only characterized unconcentrated sectors, or in Pelzman's words, "As soon as the ink was drying on the first Merger Guidelines, concentration was increasing in U.S. manufacturing."[45]

Given the evidence associating concentration with harm to consumers and competition, it is essential that enforcement practice at the agencies take their own stated guidelines seriously, and enforce the standards as written. Indeed, as we shall now see, there is good economic evidence for adopting more stringent standards than those in the 2010 Guidelines.

4.2 Resurrect the Structural Presumption, Especially for Coordinated Effects Mergers

These last observations connecting policy guidelines to rising concentration also serve to highlight two alternative approaches to merger review. The older tradition rested on a skepticism toward, even a presumption against, many mergers, certainly sizeable mergers in concentrated markets. This so-called "structural presumption" implied that since such mergers would almost surely result in competitive harm, they might be subject to quicker prohibition on that basis. In principle, such a policy might require only that the agency measure market concentration, shares, or number of competitors before prohibiting such mergers. But the Borkian revolution replaced this presumption with a rule-of-reason approach so as to be sure not to prohibit benign or beneficial mergers. As a result, over time this presumption has been eroded to the point of extinction. Resurrecting it, especially for certain types of mergers, would restore a valuable and necessary tool of merger analysis, and must be done as part of the restoration of merger control.

The "structural presumption" originated with the Supreme Court's 1963 opinion in the

[44] Sam Pelzman, "Industrial Concentration under the Rule of Reason," *Journal of Law and Economics*, 2014.

[45] Ibid, p. 117-8.

Philadelphia National Bank case. There the court articulated the proposition that mergers in highly concentrated markets were so inherently likely to be anticompetitive that no full-blown inquiry into their effects was necessary. Rather, the antitrust agencies could simply be sure there were no decisive offsetting considerations, and then prohibit the merger. The basis for this presumption was said to be convincing economic evidence about the competitive harms from such mergers.

Early merger guidelines reflected this strong presumption against such mergers. The 1968 Merger Guidelines stated that mergers in excess of its thresholds would "ordinarily" be challenged, language suggesting a strong presumption. The 1992 Merger Guidelines weakened that language, indicating only that such mergers were "likely" anticompetitive but then stated explicitly that this "presumption could be overcome" by various showings of efficiencies and other offsetting factors. The current 2010 guidelines specify that certain mergers "will be presumed to be likely" to increase market power and hence be subject to challenge, although that phraseology does not constitute an actual presumption, and indeed, there is no indication of its more frequent use in recent case bringing.

Instead of a presumption, the agencies now routinely undertake full-blown analyses of even the largest mergers for their specific anticompetitive potential–not only calculating shares and concentration, but evaluating all possibly offsetting factors, including claimed benefits from the merger, and developing a theory of how the merger is likely to result in competitive harm. The latter exercise–a "rule of reason" analysis--requires understanding of the firms' business models, likely strategic use of assets postmerger, anticompetitive opportunities created by the merger, and so forth. It also increasingly involves high-powered economic consultants on both sides, vigorously debating data, statistical models, econometric estimates, etc. to the dismay, but not necessarily the enlightenment, of the judiciary.[46] Where such information is readily available and dispositive, of course, it is ideal but most often that is not the case. As a result, for certain

[46] It is often the case that even after a full inquiry by the antitrust agency and a full hearing or trial in court, the final judicial opinion remains difficult to predict since it appears to depend on particular judge's idiosyncratic weighing of evidence. But if the evidence leaves the issue unclear or the verdict depends so much on a particular judge, the incremental gain from the

high-concentration mergers, the presumption was intended as a sufficient–and efficient–alternative to the expansive, expensive, and often ambiguous alternative approach.

There are several reasons why the structural presumption has played a diminishing role in enforcement over time. One reason is that mergers involving differentiated products–ranging from beer to local supermarkets--are generally better analyzed with tools specific to that setting. Diversion ratios, upward pricing pressure, simulation, and other methods can help directly measure the anticompetitive effect of these types of mergers. In addition, their greater degree of sophistication lends objectivity and authority to these techniques. But other mergers may simply increase the likelihood of cooperation and coordination among remaining firms, and where that is the concern, no similarly sophisticated framework exists. Here the structural presumption would be appropriately used.[47]

The other reason for the diminished role for the structural presumption is the claim that it would make too many so-called Type I errors–challenging mergers that are in fact competitively benign or beneficial. Based more on anecdotes rather than systematic evidence, and without equal attention to the costs of errors of omission--that is, overlooking anticompetitive mergers–this argument has gained support in the courts.[48] This has added to the agencies' reluctance to advance such arguments in court, and has contributed as well to the lesser role for the structural presumption in the merger guidelines.

Any merger control policy is, of course, an exercise in prediction requiring some method

the often-long and expensive process exercise is questionable.

[47] The greater sophistication of unilateral effects theory and modeling seems to have increased judges' expectations with respect to claims about coordinated effects. Since there has been no comparable progress in formalizing the latter, such claims operate under a growing burden that has left agencies' wary about challenging mergers on those grounds.

[48] A notable illustration of this–albeit not from a merger case–is the Supreme Court's decision in the Trinko case, which opined as follows: "Against the slight benefits of antitrust intervention here, we must weigh a realistic assessment of its costs....Mistaken inferences and the resuling false condemnations 'are especially costly, because they chill the very conduct the antitrust laws are designed to protect...' The cost of false positives counsels against an undue expansion of Section 2 liability." Verizon Comm. v. Law Offices of Curtis Trinko, 540 US 398, 414 (2004), quoting from the court's earlier Matshusita decision. No actual rate or costs of false positives were cited; rather, they were simply stated to be "realistic."

for forecasting the effects of a proposed merger and accepting some probability of error. The choice between a presumption and a case-specific inquiry rests on relative error rates and the costs of reducing such errors. If, for example, all or almost all mergers with certain observable characteristics (e.g., mergers to duopoly) are anticompetitive, then a blanket policy–a presumption–represents an efficient and effective approach. It would make few if any errors, and require minimal resources. Alternatively, mergers with characteristics that all or nearly all of the time are associated with benign outcomes could be addressed by an analogous presumption.

Recent economic analysis has cast some light on these issues. Using the framework of decision theory, Salop[49] has observed that since any rule will make some error, the optimal rule should minimize not simply the probability of an error of commission and its costs or consequences (as critics of a merger presumption emphasize)[50] but also two other factors: the probability and costs of an error of *omission* and its consequences (that is, the opposite set of considerations), and, importantly, the explicit cost of the alternative fact-based inquiry and the likelihood that it improves on the error rate. Thus, if a full-blown inquiry is very costly and not much more likely to arrive at the correct prediction–both considerations quite realistic--then a presumption that makes only modest errors may still be optimal overall.

My own work in this area attempts to quantify the magnitude of Type I error that a structural presumption would in fact make.[51] I do so by measuring the implied error rate if a presumption had in fact been used on a group of past mergers whose actual outcomes are in fact known. For an increasing number of consummated mergers, actual outcomes have been measured through the use of merger retrospectives.[52] I have compiled all of existing such studies, arrayed them by concentration in the affected markets, and then determined what

[49] Steven Salop, "The Evolution and Vitality of Merger Presumptions: A Decision-Theoretic Approach," *Antitrust Law Journal*, 2015.

[50] See, for example, Douglas Ginsburg and Joshua Wright, "Philadelphia National Bank: Bad Economics, Bad Law, Good Riddance," *Antitrust Law Journal*, 2015.

[51] John Kwoka, "The Structural Presumption and Safe Harbor in Merger Review: False Positives or Unwarranted Concerns?" *Antitrust Law Journal*, 2017.

[52] Merger retrospectives are careful economic studies of the outcomes of specific

fraction of mergers "above the line"–that is, with concentration in excess of some hypothetical presumption–in fact turned out to result in price increases. The higher that fraction, the stronger the basis for a presumption; the smaller the fraction, the greater the support for concern that a presumption would too often erroneously attack benign or beneficial mergers.

My research finds that use of the current guidelines thresholds for a presumption of likely market power–an HHI in excess of 2500 with a change of at least 200–correctly predicts the outcome in 86 percent of cases. That is, the greatly feared Type I error is no more than 14 percent, and this is, of course, a presumption rather than an irrebuttable conclusive determination. Using as an alternative measure of concentration the number of remaining significant competitors in the market yields an even sharper result: in this data base there are no benign mergers–literally none--with five or fewer remaining competitors. Even a criterion of six or fewer has an error rate of only 5.3 percent.

Based on these data, reliance on structural criteria for a strong presumption of an anticompetitive outcome would make few errors. To be sure, any presumption would make some errors, but as Salop emphasizes, the correct comparison is not with perfection, which is unattainable, but rather with the error rate from full-blown rule of reason inquiries into each merger. Moreover, given that the costs of the latter approach vastly outweigh the costs of a presumption, the overall decision rule favoring a structural presumption seems all the stronger.[53] This view of optimal enforcement practice would seem to be seconded by Posner, who has decried "multifactor tests" in the analysis of mergers as a "blot on the judiciary" and endorsed the views of his mentor Derek Bok, who urged "simple rules for determining the legality of a challenged merger, or at least a simple standard of presumptive illegality."[54]

---

mergers, controlling for other influences on price and other effects.

[53] Relatedly, my research also examines the other presumption in the guidelines commonly known as the "safe harbor." This provision states that "[m]ergers resulting in unconcentrated markets [defined as those where HHI is less than 1500] are unlikely to have adverse competitive effects and ordinarily require no further analysis." The safe harbor has received virtually no critical review, but my evidence finds a considerable number of anticompetitive mergers falling below that concentration threshold. Adhering to this presumption would be another indication of excess permissiveness in merger review.

[54] "An Interview with Judge Richard Posner," *Antitrust Law Journal*, 2015. Salop has

In short, available evidence and analytics establish an important role for a strong presumption against mergers with specifiable structural characteristics. There is in fact good evidence to support a presumption at least as strong as, and perhaps stronger than, that presently stated (though not enforced) in the Merger Guidelines.[55]

4.3 Toughen Criteria for Claims of Efficiencies and Other Benefits

Economics has long recognized the importance of efficiencies from mergers, but their treatment in successive Merger Guidelines has grwon more accommodating over time, reflecting agency practice. The 1982 guidelines stated that some modest efficiencies were to be expected from mergers generally and were already reflected in the concentration thresholds defining competitively problematic mergers. Only in "extraordinary" circumstances, those guidelines said, would the agencies consider specific claims. This effort to restrict the burden on the agencies by setting a high bar for case-specific claims was soon relaxed. In 1992 the new guidelines stated only that "in a majority of cases" the guidelines would not interfere with the realization of efficiencies, thus encouraging many more case-specific claims. This basic statement was repeated in the 2010 Merger Guidelines, which completed the process of fully integrating efficiencies into the overall analysis through their explicit role in calculating upward pricing pressure.[56]

The result of this progression is that arguments over efficiencies have shifted from being exceptional to becoming the norm, confronting the agencies with the task of evaluating detailed

---

suggested alternative forms to a structural presumption, forms that might have yet lower error rates, especially if applied in specific circumstances. These are fruitful avenues for research. Salop, op. cit.

[55] A modest step towards re-establishing a true presumption is contained in legislation introduced by Senator Klobuchar. That bill–the Consolidation Prevention and Competition Promotion Act of 2017--would place the burden on "mega-mergers" to show that they would not diminish competition, reversing the current burden on the agencies to show competitive harm. Mega-mergers are defined as those valued at $5 billion or more, or involving an acquirer with assets of at least $100 billion.

[56] Upward pricing pressure is a calculation weighing the likely price increase from a unilateral effects merger against any cost savings. While seemingly a useful analytical tool, it has provided validation for treating efficiency claims as equal elements in analyzing mergers, in contrast to their more ambiguous treatment in earlier guidelines and in contrast to court opinions

claims in essentially every case. Based on both economic and practical considerations, these claims should be dismissed more often and sooner. The key economic factor is simply the dearth of evidence that mergers generally produce efficiencies. A McKinsey study compared the actual cost synergies achieved by merging firms against premerger claims, and concluded that "most buyers routinely overvalue the synergies to be had from acquisitions."[57] Previously cited work by Blonigen and Pierce searched for statistical evidence of efficiency gains in manufacturing plants that were involved in mergers between 1997 and 2007. They found none. A summary of evidence from retrospective studies that examine the effects of mergers on cost savings reports savings averaging less than one percent.[58] A recent study of numerous hospital mergers confirms marginal cost reductions of only about 1.5 percent.[59] There is, in short, no good evidence that mergers generally result in substantial and verifiable cost savings, notwithstanding claims to the contrary.

In assuming the burden of evaluating efficiency claims, however, the agencies operate at a significant informational disadvantage relative to the merging parties. The parties know the technology and the input costs, both at present and in the future, far better than does the antitrust agency. The agency therefore operates at a distinct disadvantage in evaluating claims from the parties, a factor that only encourages such claims in the hope that at least some will prevail after review. The result of this asymmetry is nonetheless that claims that cannot be disproven often receive at least some credit in the agencies' analysis.

Over time, a second important change has occurred that has further increased the burden on the reviewing agencies. The 1992 guidelines directed attention to efficiencies such as "economies of scale, better integration of production facilities, plant specialization, lower transportation costs, and similar efficiencies relating to specific manufacturing, servicing, or distribution operations." These are traditional efficiencies–those associated with size, or scope, or integration–but as the agencies have become more skilled in evaluating (and often rejecting)

---

explicitly rejecting their treatment as offsets to otherwise competitively problematic mergers.

[57] "Where Mergers Go Wrong," *McKinsey on Finance*, 2004.

[58] Kwoka and Kilpatrick, "Nonprice Effects of Mergers," *Antitrust Bulletin*, 2018.

[59] Stuart Craig, Matthew Grennan, and Ashley Swanson, "Mergers and Marginal Costs:

such claims, firms increasingly have asserted other types of efficiencies and related benefits from merging. These include the following:

• Quality improvements. Rather than shifting the cost curve, better quality products would shift the demand curve in their favor.

• Greater investment. A frequent claim of merging parties is that greater scale strengthens their incentive to invest, claims that tend to get some weight since they are difficult to disprove.

• Network economies. Network effects tend to yield ever greater economies to the larger (or largest) incumbent firm, and so there is a presumption in their favor in the antitrust process.

• Vertical economies. For horizontal mergers that also have vertical components, the agencies often credit such factors as avoidance of double marginalization and more subtle cost savings from integration.

What these more recent merger-related benefits[60] have in common is that they are generally even more difficult to analyze and measure than are traditional cost economies. Estimating a shift in a demand curve due to a quality improvement, and then to evaluate the resulting consumer benefits, are tasks considerably more challenging than measuring a change in variable cost. Claims of greater investment incentives are difficult to evaluate since investment decisions are highly variable, multidimensional, and longer term in nature. Network effects and vertical economies are subtle in nature and notoriously difficult to assess. And the evidence from the already-cited McKinsey study is that 70 percent of their surveyed mergers failed to achieve their expected "revenue-synergies."[61]

These issues have been central to some well-known recent cases. In the Ticketmaster-Live Nation case, for example, the parties asserted efficiencies from transactions costs savings and avoidance of double marginalization. The Justice Department predicted that consolidating

---

New Evidence on Hospital Buyer Power," NBER, August 2018.

[60] It is not entirely accurate to call quality, investment, network and vertical effects "efficiencies." but they continue to be described as such. For further discussion, see John Kwoka, "The Changing Nature of Efficiencies in Mergers and Merger Analysis," *Antitrust Bulletin*, September 2015

[61] McKinsey, op. cit.

this fragmented vertical production chain would "reduce primary ticketing service prices and service fees."[62] In airline mergers, the parties routinely assert substantial dollar benefits–in the hundreds of millions of dollars–to consumers from creating more single-carrier routes and more frequent service on any single route.[63] Properly valuing these benefits poses serious practical challenges.

Several changes to policy would tighten standards and procedures for cognizable efficiencies and other offsetting benefits often claimed from mergers. These changes include the following:

(1) A clear statement that the merging firms bear the full burden of proof of any claimed efficiencies and other benefits. Rather than the agencies having to disprove claims, or debate them with the parties, a standard under which the only admissable claims are those fully proven by the merging firms would help in screening out dubious claims of efficiencies or other benefits.

(2) A return to the presumption that guidelines thresholds allow for "standard" efficiencies and benefits. This would imply that parties should not waste time and resources to make claims of modest efficiencies since those would be rejected as already accounted for. Rather, only exceptional efficiencies or benefits should be submitted for evaluation. Indeed, some rough quantitative threshold might be set as a barrier to routine claims.

(3) Strengthen the criteria for a cognizable benefit so that it must be verified by evidence from past practice or from documentation well before the merger proposal. This would give little or no weight to claims and reports about prospective efficiencies that have been prepared only for the purpose of a merger submission to the agencies.

These policy reforms would shift the burden to the appropriate party, minimize strategic submissions to the competition authority, alleviate the burden on the reviewing agency, and result in a more appropriate policy toward cost efficiencies and other benefits from mergers.

---

[62] DOJ, Competitive Impact Statement, Ticketmaster-Live Nation.

[63] See Isreal, et al, op. cit. Even if correct, it might be noted that these benefits may not accrue to the same consumers that are arguably harmed by reduced competition on certain routes.

4.4 Challenge More Mergers that Eliminate Potential Competitors

The 1982 and all later merger guidelines focused attention on the ability of a small group of sellers to raise the price of some product and make that price rise stick. The result has been the development of ever more sophisticated modeling and testing of pricing practices among sellers in that group, and how those outcomes might change as a consequence of a particular merger. Left behind in these developments has been concern with respect to mergers that eliminate firms that threaten to enter the market, whose threatening presence may have constrained the incumbents, and therefore whose elimination would result in higher pricing by incumbent firms. The result has been ever more common approval of potentially anticompetitive mergers between an incumbent and a threatening outside firm, commonly known as a "potential competitor." This practice needs to be reversed in order to prevent these mergers that have increased concentration, reduced competition, and ultimately harmed consumers.

At times in the past concern with potential competition has been an important component of policy. But over time both legal and practical considerations, as well as overly cautious agency practice, have largely relegated this to a subsidiary role. Court decisions made it clear that challenges to such mergers would have to clear an unusually high bar for proof: a concentrated market, an outside firm with the "characteristics, capabilities, and economic incentives to render it" a potential entrant, that potential entrant as unique or at least one of very few such well-positioned firms, and–critically–actual evidence that such a firm has "in fact tempered oligopolistic behavior" by incumbents.[64] The result of these criteria has been ever fewer challenges to mergers involving potential competitors, although the antitrust agencies sometimes do note concerns with potential competition as secondary matters in challenges brought primarily on other grounds.[65]

The economic theory behind the doctrine of potential competition is straightforward: In the most common case, if the incumbent firm altered its pricing or other strategy out of concern for possible entry, the elimination of that threat by merger with that incumbent permits less constrained behavior by the incumbent and causes harm similar to that from a merger between

[64] *U.S. v. Marine Bankcorporation*, 418 U.S. 602.

two actual incumbents. A somewhat different, but also competitively harmful, scenario is that in which the outside firm is in fact contemplating entry even though the incumbent is unaware of that. A merger between the two firms in this case eliminates the *actual* likelihood of future entry that would result in deconcentration of the market, but there is no pre-entry indication of the constraining influence from the outside firm.[66]

There is empirical evidence of the adverse effects of actual mergers that eliminate a potential competitor. Research by myself and Shumilkina has examined these effects in the case of an airline merger.[67] Our work differs from the many other studies of airline mergers that investigate the price effect on "overlap" routes--those served by both merging carriers. Rather, we look at routes served by only one of the merging carriers where the other is positioned to enter by virtue of serving one or both endpoints of the route.[68] Using standard data and methodology, we find that the elimination of the potential entrant results in a statistically significant price increase in the range of 5 to 6 percent, about half the size of the effect on routes where the two carriers are both incumbents. This study directly tests the economic proposition that underlies the doctrine of potential competition, and confirms its importance.

Recent work by Cunningham et al have studied acquisitions among firms that account for more than 35,000 pharmaceutical drug projects.[69] They categorize each project by its therapeutic category and mechanism of action, and focus on cases were one company acquires another that has a directly overlapping project. In these cases, of course, the acquiring company has weaker incentives to continue development since it would cannabalize its own sales and profits, and indeed may acquire the other company simply in order to kill off its development project. In its

---

[65] See, for example, the Staples case; complaint in US Air-United.

[66] The first scenario is sometimes called a "perceived potential competitor," while the second is a "actual potential competitor." See John Kwoka, "Non-Incumbent Competition: Mergers Involving Constraining and Prospective Competitors," *Case Western Reserve Law Review*, 2001.

[67] John Kwoka and Evgenia Shumilkina, "The Price Effect of Eliminating Potential Competition: Evidence from an Airline Merger," *Journal of Industrial Economics*, December 2010.

[68] This is a fairly standard definition of potential entrants onto airline routes. Airlines constitutes one of the best examples where there are such objective criteria

key finding, this study reports that acquired overlappiing projects are 40 percent less likely to be continued in the development process than non-acquired drugs or acquired non-overlapping drugs. These results make clear that so-called "killer acquisitions" in pharmaceuticals are both frequent and competitive harmful.

To be sure, there are some distinctive practical difficulties in evaluating a merger with a threatening entrant that do not arise in mergers between incumbents. These difficulties begin with the threshold issue of identifying a potential competitor, since by definition such a firm does not currently operate in the market in question. In some cases there may be objective criteria for identifying potential entrants; in other cases company documents and third-party analyses may provide convincing evidence; and in yet other instances, market actions and reactions by the incumbent may signal its understanding of the threat posed by an outside firm. But all of these methods represent challenges not faced in the case of mergers involving obvious incumbent competitors. Moreover, while the theoretical framework for analyzing the competitive effect of a merger between an incumbent and a potential entrant is in principle analogous to that for a merger of incumbents, much of the now-standard apparatus for quantification is not applicable to the former. All this has led to skepticism by the courts and caution by the enforcement agencies in making such cases.

That said, there have been a few noteworthy efforts to bring such cases. In 2002, the FTC successfully prevented Questcor from acquiring U.S. development rights to a synthetic alternative to its monopoly over a drug treating certain serious infantile disorders.[70] More recently, the FTC sought to prohibit the merger of Steris and Synergy, albeit unsuccessfully. Despite business documents indicating that Steris would likely enter Synergy's market–contract sterilization of certain devices and products--the court was unpersuaded that there were not more potential entrants, a possibility that downgraded Steris's importance.[71] In another recent matter

[69] Colleen Cunningham, Florian Edereer, and Song Ma, "Killer Acquisitions," 2018.

[70] FTC , Complaint, 2013.

[71] In addition, the CEO of Steris simply denied that his company was in fact contemplating the de novo entry that the documents described. For a discussion of this merger, see Jennifer Fauver and Subramaniam Ramanarayanan, "Challenges for Economic Analysis of Mergers Between Potential Competitors: Steris and Synergy," *Antitrust*, 2016.

the FTC initially opposed the merger between Neilson and Arbitron, providers of measurement technologies for media viewing and listening, respectively. It approved the merger after securing an agreement that Arbitron would make a key technology available to third parties–other potential entrants--for a period of eight years. [72] In 2009 a similar agreement for technology access was obtained by the Department of Justice as a condition of allowing Google to acquire ITA.[73] This last merger posed the added enforcement difficulty that it involved the merger of two firms neither of which was active in the market in question–airline flight search–but both of which arguably might have entered. This is sometimes called a potential potential-competition merger.

But such agency challenges are dwarfed by the number of approvals of mergers involving firms with the potential to enter into an incumbent's business that simply do not register as competitively noteworthy.[74] Permitting such mergers has almost certainly eliminated the most likely entrants and the most likely constraining outside firms in numerous markets, contributing to greater market power of incumbents but without causing an increase in measured concentration. Permitting the elimination of such firms also would seem directly responsible for the previously documented decline in the number of public firms in the U.S. economy.

I have previously proposed that mergers that eliminate a potential competitor be challenged when the market is at least moderately concentrated, when the potential competitor is one of no more than a small number of well-positioned possible entrants, and there is evidence either from documents or past experience of the outside firm's effect on the market.[75] For

[72] Statement of the FTC, Neilson Holdings & Arbitron, Sept. 2013.

[73] See Michael Topper, Stanley Watt, and Marshall Yan, "Google-ITA: Creating a New Flight Search Competitor," in J. Kwoka and L. White, *The Antitrust Revolution*, 6th ed., op cit. This remedy will be discussed further below.

[74] A recent such example would seem to be the proposed acquisitions of Bombadier and Embraer by Airbus and Boeing, respectively, just as the first two aircraft manufacturers launch larger planes that are increasingly competitive with smallest aircraft produced by Boeing and Airbus. See Steven Perlstein, "Boeing and Airbus: The New 'Super-Duopoly'", *Washington Post*, Arpil 2018.

[75] As noted, the Supreme Court opinion has contributed to the high standard that challenges to such mergers must meet. See Kwoka, "Non-Incumbent Competition." For that reason, some legislative action might be required to implement this policy.

conventional mergers raising concerns over the elimination of a potential competitor, this policy would reverse the current accommodating posture toward potential competition mergers, a posture that has thwarted the market's natural tendencies to bring competition to dominated markets.[76]

4.5 Toughen Scrutiny of Mergers wtih Nonprice Effects, Especially Innovation

The guidelines' tight focus on the effect of mergers on pricing among incumbents in some antitrust market has diverted attention not only from potential competition, but also from various nonprice effects that can also harm consumers and competition. Indeed, in many industries the nonprice effects of mergers are at least as important. For example, in pharmaceuticals, R&D outcomes are often critically important outcomes of mergers and should be a primary focus of any review of their competitive effects. In programming and entertainment, variety and choice are key considerations. In airlines, the effects of mergers on service quality as well as on price are matters of concern. Despite the importance of these considerations in many industries, the Merger Guidelines pay far less attention to nonprice considerations. The 1992 Merger Guidelines mentioned nonprice effects in exactly one footnote that simply noted that adverse outcomes with respect to these other factors might occur. The 2010 update of the Merger Guidelines repeats that statement, adds an assurance that the analysis of such outcomes is analogous to that for price, and contains a subsection that sets out some factors on innovation and product variety that the agencies may examine.

These statements represent altogether inadequate attention to nonprice issues, and certainly pale in comparison to the guidelines' efforts to specific and measure price effects. Moreover, assurances about the analogy to price analysis are misleading since the economics of nonprice effects differ from that for price. For price, of course, we normally expect concentration to be associated with higher price and consumer harm, but the relevant economic theory and evidence regarding the effect of concentration and quality, variety, R&D, and

[76] In the important tech sector where mergers often raise concern over potential competition, these standards and concepts would not represent a practical approach. Below, I discuss the unique challenges of that sector and offer some suggestions for merger policy tailored to those challenges.

technological change is more complex, emphasizing the importance of factors in addition to concentration. For example, the effect of a merger on quality depends subtly on the way that different consumers value quality, and may go in either direction.[77]

With respect to R&D and innovation, both theory and evidence suggest that these vary with concentration and mergers in even more complex ways. On the one hand, there are reasons why mergers may enhance innovation, such as efficiencies from reduction of duplication and synergies from joining complementary functions. But possible competitive harms are equally evident. Perhaps most obviously, if the merging firms have potentially competing products under development, a merger reduces their incentives to pursue both. One of the development projects may be slowed, or altered, or simply terminated in order to protect–indeed, enhance–future profits from the remaining project.[78] But theory also indicates that the actual outcomes depend in complex ways on the security of intellectual property rights, the nature and strength of spillovers, the probability of success in the R&D project, the strength of post-merger as well as pre-merger competition, product vs. process innovation, and entry barriers.[79]

The empirical literature has not resolved these theoretical ambiguities with respect to innovation. Studies report results in various directions, sometimes for reasons that are not entirely apparent. Some recent work even suggests that R&D intensity may reach its maximum value at some mid-level range of concentration.[80] Few merger retrospectives have been performed on innovation or other nonprice effects. Summaries of that literature report no evidence of overall systematic effects from mergers on any of the carefully studied nonprice

[77] Jean Tirole, *The Theory of Industrial Orgamization*. MIT Press, 1988.

[78] For recent confirmation of this concern, see Cunningham, op. cit.

[79] See, for example, Rich Gilbert, "Looking for Mr. Schumpeter: Where Are We in the Competition/Innovation Debate?", in Jaffe, Lerner, and Stern, eds., *Innovation Policy and the Economy*, 2006. Massimo Motta and E. Tarantino, "The Effect of Horizontal Mergers When Firms Compete in Prices and Investments," 2107. Giulio Federico, Gregor Langus, and Tommaso Valetti, "Horizontal Mergers and Product Innovation," *International Journal of Industrial Organization*, 2018.

[80] For evidence and a review, see Philippe Aghion, Nick Bloom, Richard Blundell, Rachel Griffith, and Peter Howitt, "Competition and Innovation: An Inverted-U Relationship," *Quarterly Journal of Economics*, 2005.

outcomes–quality, technical efficiency, and innovation.[81] Interestingly, however, while the average effect is essentially nil, those studies report that the range of outcomes is substantial so that significant favorable or unfavorable outcomes do occur in specific cases with considerable frequency. That, in turn, heightens the need to examine each merger by itself rather than addressing these questions through a presumption–subject, of course, to the costs and the likely incremental reduction in uncertainty from conducting such a case-specific analysis.

Compared to standard analyses of price effects, empirical analyses–and antitrust scrutiny--of nonprice outcomes face substantial and distinctive hurdles. These begin with the need to measure what is meant by "quality," "innovation," and other nonprice factors. The next challenge is to model a causal process and estimate the empirical effects. These difficulties are undoubtedly among the reasons that guidance with respect to nonprice considerations in the Merger Guidelines is inadequate,

That said, there is some progress in a few relevant areas. A framework for evaluating quality effects in the context of airline mergers, for example, has been set out by Isreal et al.[82] While this relies in part on facts specific to that industry, some of the underlying principles may carry over to other settings where quality is subject to merger-related change. A second constructive example concerns the effects of a merger on innovation. In the process of concluding its investigation of the proposed merger of Dow and Dupont, the EU's Directorate General for Competition released its lengthy Commission Decision detailing the steps in its analysis of how innovative effort would likely be affected by the merger.[83] Its clear articulation provides a roadmap applicable to many analyses of innovation.

---

[81] See John Kwoka, "The Effects of Mergers on Innovation: Economic Framework and Empirical Evidence," in *The Roles of Innovation in Competition Law Analysis*, Edward Elgar, forthcoming. Also, John Kwoka and Shawn Kilpatrick, "Non-Price Effects of Mergers: Issues and Evidence," *Antitrust Bulletin*, 2018.

[82] Mark Isreal, Bryan Keating, Daniel Rubinfeld, and Robert Willig, "The Delta-Northwest Merger: Consumer Benefits from Airline Network Effects," in J. Kwoka and L. White, *The Antitrust Revolution*, 6th ed.

[83] Commission Decision, Annex 4, "Implications of the Economic Theory on Competition and Innovation in Light of the Features of the Transaction," Brussels, March 27, 2017.

But in few actual merger cases do nonprice effects dominate attention. More often, the focus is on the pricing issues that are better understood and where economics has more to offer, even if other outcomes seem at least as important. All this implies that further development, understanding, and guidance with respect to nonprice effects is essential, since as noted in some industries nonprice effects are central considerations and mergers in those sectors may now proceed without adequate analysis. The agencies need to better understand nonprice effects, better convey their importance in the guidelines, better equip themselves to bring relevant cases, and better argue the possible merger-related harms with respect to R&D and innovation, service quality, and product variety in specific contexts.

4.6 Toughen Scrutiny of Mergers that Exclude Rivals, Including Vertical Mergers

In addition to potential competition and nonprice effects, there is a third method by which competition may be harmed that has received inadequate attention as a result of the Guidelines focus on price. This concerns mergers that create or enhance barriers to entry and thereby exclude new firms or handicap growth and competition from existing firms. These strategies may not always result in direct or immediate price increases or other effects, but their essential purpose and ultimate effect is to distort the competitive process in ways that eventually harm competition and consumers. The guidelines framework offers no guidance for addressing mergers that increase the incentive or ability of firms to exclude or handicap rivals. These should be subject to the same antitrust strictures as those that would directly raise price, although the framework for evaluating such cases may in some cases require modified methods of analysis.

Strategies to handicap rivals or exclude entrants can take many forms. These include strategies that raise rivals' costs of operation, practices that limit competitors' access to distribution channels, refusals to deal with or supply rivals, strategic discounting or tying that locks customers into incumbent supplies, vertical integration that forecloses rivals, standards setting that disadvantages potential rivals, obstacles to interoperability, and manipulation of the regulatory process, among others.[84] For example, a large brewer may be able to force a

[84] For a longer list and extensive discussion, see Jon Baker, "Exclusion as a Core

distributor into some exclusionary practice that handicaps smaller brewers by threatening to withhold its own high-volume, "must-have" product.[85] Similarly, a large food manufacturer may be able to secure more advantageous shelf space arrangements with a supermarket, to the disadvantage of new entrants and smaller firms.[86] Or a large integrated firm may be able to pressure other firms to deal only, or on more advantageous terms, with itself exclusively, thereby cutting out independent single-stage rivals. Or it may simply foreclose those rivals from either necessary inputs or customers it controls, thereby handicapping those rivals to the benefit of its own businesses.

These latter scenarios focus attention on vertical mergers as a method to increase market power and profit extraction at any one stage. To be sure, most vertical mergers–like most horizontal mergers–are benign or even procompetitive, but in contrast to the Chicago School's views, some vertical mergers pose serious competitive concerns. As described in Salop and Culley,[87] the two basic mechanisms involve what are called customer foreclosure and input foreclosure. Input foreclosure occurs when the merging firm supplies critical inputs to one or more downstream firms with which it competes (and pre-merger, absent the vertical dimension, supplied on competitive terms). The merger alters the merged firm's incentives to continue such supply at the same terms since that now siphons off some customers of its own downstream unit. Accordingly, it predictably raises the price of that input, or supplies it on other less advantageous terms, so as to diminish the degree of competition it faces at that stage.

A now familiar example of this concern arose in 2009, when Comcast–a major cable operator serving nearly 30 percent of U.S. video customers--sought to acquire NBCU. The latter company controlled a vast array of programming content –both its own and that which it acquired from content suppliers–that it aggregated and sold to distributors such as Comcast. The linkage between these stages would place competing distributors at a disadvantage since the

---

Competition Concern," *Antitrust Law Journal*, 2013..

[85] Supra, n. 23.

[86] Supra, n. 25.

[87] Steven Salop and Daniel Culley, "Potential Competitive Effects of Vertical Mergers: A How-To Guide for Practitioners," 2014. See also Steven Salop, "Reinvigorating Vertical Merger Enforcement," *Yale Law Journal*, 2018.

integrated company would have the incentive and ability to raise the price at which it sold content to its rivals in distribution.[88] The DOJ permitted Comcast and NBCU to merge subject to a complex and controversial remedy that was subsequently the subject of much criticism. Later mergers in this sector raised similar–though not identical--issues and elicited somewhat different policy responses. The attempt by Comcast to acquire Time Warner Cable in 2015 was met by skepticism from the FCC, in part due to doubts about the efficacy of any remedy, and was subsequently abandoned by the parties. AT&T's attempt to acquire Time Warner in 2017 prompted an outright challenge by DOJ, although the trial court rejected the government's argument.[89]

Customer foreclosure was also a concern in the Comcast-NBCU merger and subsequent mergers in the video/entertainment sector. Customer foreclosure reflects the same compromised incentives of the merging firm in its role as a customer of entities with which it now competes. In Comcast-Time Warner Cable, for example, a concern was that the merged company's larger position as a distributor increased its incentive and ability to prevent alternative video distribution technologies and products from reaching video customers. These included streaming technologies as well as video entertainment products that overlapped with those already owned and offered by the merged company.[90]

Another notable example of these concerns involved the merger between Ticketmaster and Live Nation.[91] Each of these companies dominated different stages of the vertical live music production process, with Ticketmaster's grip on ticketing services at large concert venues complementing Live Nation's prominence in venue management and artist promotion. Central

---

[88] These rivals were primarily the satellite providers Dish and DirecTV. For analysis, see William Rogerson, "A Vertical Merger in the Video Programming and Distribution Industry," in J. Kwoka and L. White, *The Antitrust Revolution*, 6th ed.

[89] Full disclosure: I consulted for DOJ in this matter.

[90] Full disclosure: I worked for Entravision in opposition to this merger. Entravision's Spanish-language video products overlapped with Telemundo, owned by NBCU and hence part of the merged company, and hence might be foreclosed from Comcast's distribution systems.

[91] For discussion, see John Kwoka, "Rockonomics: The Ticketmaster-Live Nation Merger and the Rock Music Business," in J. Kwoka and L. White, *The Antitrust Revolution*, 7th ed.

competitive concerns were that, post-merger, Ticketmaster might threaten to withhold its ticketing services from any venue that did not also book Live Nation-affiliated artists, or that promoters in active competition with Live Nation might suddenly find Ticketmaster-affiliated venues unavailable to them. The companies secured approval of their merger subject only to a complex conduct remedy that was widely criticized at the time. A recent review of both that remedy and the businesses now dominated by Ticketmaster/Live Nation has come to a harsh judgment about both.[92]

Modern merger analysis views these cases of vertical integration as a strategy to enhance a firm's profitability by conferring control over either inputs or customers needed by its rival. The analysis of the pricing effects of these possible strategies is fairly straightforward,[93] although the subtleties of the vertical relationship can make it difficult to establish causality. For example, retaliation or even the threat of retaliation may be as effective as an increase in price in diminishing a rival's competitiveness, but those are much more difficult to prove. Establishing the precise anticompetitive effects is doubly difficult in the case of many other exclusionary practices, especially where the exclusionary practice may have arguable efficiency purposes as well as possible anticompetitive effects.[94]

This problem of assessing business justifications vs. competitive harms is illustrated in the well-known government suit against Microsoft.[95] While not involving a merger, the case centered on Microsoft's strategies with respect to Netscape, the first internet browser, which Microsoft came to view as a threat to the Windows operating system that was the heart of its dominance. Microsoft's strategy was to build its own browser–the Internet Explorer–and then to require OEMS and internet service providers to prioritize IE over Netscape and to write its Windows software to degrade the operation of Netscape. Microsoft claimed these strategies were competitively benign or even beneficial to consumers since, other things equal, consumers would prefer pre-installed functionalities such as a browser, rather than having to shop, choose,

---

[92] Ben Sisario and Graham Bowley, "Live Nation Rules Music Ticketing, Some Say With Threats," *New York Times*, Sept. 2017.

[93] Rogerson, op. cit.

[94] Baker, op. cit.

acquire, and install their own. But of course, pre-installation distorts possible consumer choice among possible current alternatives and forecloses the market from future possibly superior alternatives.

This case, like virtually all involving allegations of tying, bundling, exclusive dealing, and the like, require a rule of reason analysis. They are inevitably more complex, costly, and less predictable in their outcome. All implose a considerable burden of proof for the antitrust agencies. Given the complexity of the issues, the acute information asymmetries between the agency and the firms, and the inclination of the courts to accept firms' claims, mergers that affect competition through many of these practices represent concerns that are not being adequately addressed. Baker has observed that the antitrust courts may be moving toward a "structured rule of reason" approach with respect to exclusionary conduct, one that screens out unlikely cases based on structural conditions and undertakes a full analysis only on the remainder. While that would shift policy in the right direction, it would not necessarily go far enough and certainly not soon enough. The enormous burden of proving to the satisfaction of a court that a specific practice would (indeed, with high probability, will) significantly impede entry or growth of competition, and ultimately lead to a significant price increase, would as a practical matter continue to limit any policy against impeding competition.

A better–and necessary--approach would be a policy that makes clear that any merger that materially impedes competition by handicapping or preventing entry, growth, and stronger competition from an actual or potential rival would itself br an antitrust violation. This would relieve the agencies of the need to establish the full causal mechanism, to demonstrate the ultimate price distortion, and to measure its precise effect in each case. Rather, by establishing the fact of a greater impediment to competition, it would satisfy its burden of proof. As with other proposals, the economic logic underlying this tougher approach is sound but would need to be explained in the process of bringing such challenges to the courts.

---

[95] See Rubinfeld, op. cit.

4.7 Strictly Limit Use of Remedies, Especially Conduct Remedies

Few challenges to mergers result in actual litigation.[96] Parties may abandon or modify a proposed merger upon notification of a likely challenge, but increasingly the agencies enter into settlements of prospective litigation through some type of "remedy" that allows the merger in part or whole to proceed. There is, however, increasing evidence that remedies have often not been effective in resolving competitive concerns with mergers and may, in addition, impose continuing administrative burdens on the agencies. As a result, a necessary component of merger control reform is for the agencies to substantially reduce reliance on merger remedies. This applies with special force for those remedies known as conduct or behavioral remedies. Instead, merger control should more often simply prohibit anticompetitive mergers–that is, issue challenges and litigate if necessary. The exception is when, with a very high degree of certainty, they can predictably be successfully remedied–and this criterion needs to be interpreted strictly.

The theory behind remedies is simple: where a large and complex merger creates competitive concerns in a limited area, antitrust policy might require divestiture of one of the overlapping products to a qualified buyer, thereby fixing that specific concern while permitting the remaining operations of the companies to merge.[97] This would preserve the same number of independent and capable profit-seeking entities in that product market as well as their incentives for competition that existed prior to the merger. Such divestitures, also known as "structural" remedies, have long been used by the antitrust agencies and have generally met with a fair degree of success.

Paradoxically, the ever more extensive use of divestitures to resolve competitive concerns has been aided by the narrow focus of market definitions under the Merger Guidelines. Narrow product markets–specific products in their applications or functionalities–suggests that equally narrow, targeted divestitures to a third party might resolve the overlap since the firm which acquired the divested asset is presumably not in that same very narrow product market–although

[96] While there are about 50 merger investigations in any year, on average about two actual cases go to trial.

[97] See *MMCR*. Also, John Kwoka, "Merger Remedies: An Incentives/Constraints Framework," *Antitrust Bulletin*, June 2017

it may be present in many closely related businesses. This expansive view of the role and capabilities of remedies has led, for example, to a resolution of the Teva-Allegan pharmaceutical merger that involved almost 90 specific overlapping products that had to be divested to other companies. This transformed the two companies as well as several smaller companies that acquired various groups of the 90 divested products–essentially restructuring the entire industry–but without that as the guiding principle. In other recent cases, divestitures have been employed in ways that redefine remedy policy in more fundamental ways. For example, where the specific divested assets are insufficient to create an equivalent new competitor, the agencies have at times sought to find and integrate other assets to create a stronger new entity. In this manner, the competition agency has become the industry's structural engineers.[98] These trends quite likely exceed the ability of the agencies, and some of these more ambitious divestiture plans have now resulted in failure.

Beyond divestitures, the agencies have recently employed a second type of remedy, so-called conduct or behavioral remedies. These permit a merger to proceed in its entirety, but seek to prevent the merged firm from engaging in specific anticompetitive acts. Thus, the remedy may prohibit divisions of the merged company from exchanging competitively sensitive information that would otherwise not be available to an independent company. Or they may impose a requirement to supply a rival with some input that previously had been supplied by an entity that is now part of the merged company with which the rival competes.[99]

For several reasons, conduct remedies are difficult to write and difficult to enforce. They must fully specify the prohibited conduct in all possible circumstances both at present and in the future. They require negating the companies' incentives to evade any constraints that diminish their profits, essentially requiring them to act against their own interests. They suffer from acute informational asymmetries that put both the agencies at a major disadvantage in identifying possible violations. Moreover, once in place, the antitrust agencies are not equipped

[98] A good example of this practice is the FTC's remedy for the merger of Albertsons and Safeway supermarkets. For discussion, see Kwoka. Remedies.

[99] Conduct remedies have been more often used in cases of vertical mergers, but their limitations remain the same.

to engage in what is essentially regulatory oversight in order to assess compliance. In short, the parties subject to such remedies have every incentive to evade them, and the competition agency is unlikely to be able to prevent that.

Despite these problems, about ten years ago the Justice Department adopted a more favorable view of conduct remedies. It issued a Remedies Guide that endorsed their use in a wider set of circumstances and proceeded to employ such remedies in several high-profile cases.[100] This policy proved controversial and has now been reversed in the face of both anecdotal and systematic evidence of their lack of success. The new chairman of the FTC has stated his intention to limit the use of remedies generally, while the new Assistant Attorney General for Antitrust has publicly announced withdrawal of the 2011 Remedies Guide in favor of the earlier version that made structural divestitures central.[101]

The view that remedies are often ineffective has been confirmed by the few studies that have examined this question. The first such study was due to the Federal Trade Commission in 1999, and that agency conducted a second study just two years ago.[102] Both of these examined that agency's own use of remedies, primarily divestitures. In addition, I have examined the effects of all the remedies used in the mergers for which retrospectives have been conducted. Those findings are reported in *MMCR.* All these reviews have found that a significant fraction of the FTC's divestiture remedies has failed to preserve competition. My research, for example, has found that mergers subject to divestitures resulted in price increases of about 5.6 percent, little different from mergers that were outright cleared. While the number of conduct remedy cases was very small, they resulted in an average price increase in excess of 13 percent.[103]

[100] "Antitrust Guide to Merger Remedies," Department of Justice, 2011. This guide was a revision of an earlier guide that took an appropriately skeptical view of conduct remedies. See also Diana Moss and John Kwoka, "Behavioral Merger Remedies: Evaluation and Implications for Antitrust Enforcement," *Antitrust Bulletin*, December 2012

[101] Joseph Simons, "Completed Initial Questionairre," Senate Commerce Committee, Feb. 2018. Makin Delrahim,"Modernizing the Merger Review Process," Remarks at the Global Antitrust Forum, Sept. 2018.

[102] Federal Trade Commission, "A Study of the Commission's Divestiture Process," 1999. "The FTC's Merger Remedies 2006-2012," 2017

[103] *MMCR*, as corrected. The second FTC study declared the few conduct remedies that

The implication of these considerations is that remedies have become substitutes for tougher but necessary policy. They have been used too often, too widely, too optimistically, too casually, and perhaps too strategically as policymakers may seek ways of avoiding challenging mergers but wishing to appear to be taking action. Sound merger control policy needs to adopt a far more realistic and cautious approach to the use of remedies, conduct remedies in particular.[104] In practice that means to avoid their use except for very unusual cases where their success can be predicted with a very high degree of confidence.

5. THREE NECESSARY PROCESS REFORMS

The above substantive reforms represent a broader and bolder merger control policy and would go far toward rectifying errors and weaknesses of past practice. But they would not go far enough. Current policy also needs to address three process impediments to sound policy, and therefore also require reform. This section sets these out, detailing both the rationales for and specifics of the necessary reforms.

5.1 Expand Use of Retrospectives on Mergers and Policy

Improvements in antitrust policy have generally been based on advances in economic theory or on lessons gleaned from prior case experience. Much less use has been made of systematic evidence despite the fact that past experience contains a wealth of information about the effects of mergers and the effectiveness of merger policy. It is essential for good policy that the antitrust agencies conduct far more evaluations of past experience and practice, examining critical policy decisions and their outcomes, and do so on a wide range of mergers and on a regular basis. Outside researchers, by contrast, lack access to information about particular cases and hence cannot conduct retrospectives, and also lack access to comprehensive data on cases that would permit, say, meta-analyses.

There is no question of the high value of such ex post evaluations. A clear demonstration

---

it covered to be successes, but that study had methodological defects that invalidated this conclusion. See J. Kwoka, "One-and-a-Half Cheers for the FTC Remedies Study," ssrn

[104] Alternatively, Salop has recommended that merger remedies be subject to possible modification if they fail to achieve their initially stated goals. Steven Salop, "Modifying Merger

of this fact is the FTC's initiative in conducting retrospective analyses of consummated hospital mergers. After losing several challenges to such mergers in the 1990s, the FTC initiated a series of studies of prior hospital mergers in order to be better able to demonstrate their competitive harm. This initiative produced a series of high quality studies that proved to be important in renewed and successful efforts to challenge additional hospital mergers. Surprisingly, despite this demonstration of value, the FTC has not followed up with similar initiatives in other areas.[105]

As a result, additional retrospective analyses of mergers have largely been left to academic research. Without access to nonpublic data, academic work has unfolded at a relatively slow pace . Nonetheless, over time published merger retrospectives have grown in number and allowed for compilation and analysis of their collective implications. My research monograph *MMCR* is precisely this exercise, and its implications provide further evidence of the value of retrospective evaluations of mergers. Several of those implications have already been discussed, including the narrowing of merger enforcement over time, the increase in average prices resulting from mergers, including those reviewed by the agencies, and the general weakness of merger remedies.

There have been calls for more retrospectives at the agencies for some time. Carlton[106] (2007) noted the lack of merger policy evaluations and set out some methodological considerations for how they should be performed. Kovacic (2009) urged "greater attention to the evaluation of the economic effects of enforcement decisions."[107] An OECD roundtable and report (2011) recommended the same,[108] as have Jarsulic and myself.[109] Moreover, competition

---

Consent Decrees to Improve Merger Enforcement Policy," *Antitrust*, Fall 2016.

[105] As already noted, the FTC did conduct evaluations of its remedy policy, and their economics staff have periodically undertaken several merger retrospectives. The Justice Department has altogether fewer initiatives in this area.

[106] Dennis Carlton, "Why We Need to Measure the Effect of Merger Policy and How to Do It," *Competition Policy International*, 2009

[107] William Kovacic, "Assessing the Quality of Competition Policy: The Case of Horizontal Merger Enforcement," *Competition Policy International*, 2009.

[108] OECD, Roundtable on Impact Evaluation of Merger Decisions," 2014.

[109] *MMCR*. See also "Evidence-Based Policy in Antitrust: The Need for Ongoing Merger

agencies in some other jurisdictions now conduct impact evaluations of their merger policy on a regular basis, and legislation has been introduced into the U.S. Congress to require the FTC and Justice Department to do likewise.[110]

A standard response by the agencies is the lack of resources, but Farrell and I have called that a "false economy" since by conducting such studies, the agencies would soon have insights into how to make merger policy both more efficient as well as more effective.[111] It would do so by providing guidance regarding characteristics of competitively problematic mergers, choices made by the agencies with respect to challenges, and the effectiveness of their actions and remedies. Moreover, it is not clear that the burden of conducting such studies is necessarily so great. The standard methodology of merger retrospectives, so-called difference-in-differences, requires only a modest amount of data and could readily be undertaken by the antitrust agencies on a regular basis.[112] For some industries such as airlines, data are readily available. More generally, production of necessary post-merger data could be made a condition of the HSR filing requirement, so that agencies would be able to assess the results of their decisions to clear, remedy, or challenge proposed mergers.

Accordingly, it is important that the agencies institutionalize this information generating process by conducting ex post evaluations of mergers, investigations, remedies, and resolutions for at least a few cases each year. Over a period of five or more years, this will cumulate into a body of data that considerably exceeds--in terms of numbers, quality, consistency, and timeliness–what now exists. It will inform and improve on-going merger review, to the great benefit of the agencies, companies, and consumers.

Retrospectives," M. Jarsulic and John Kwoka, Center for American Progress, April 2017.

[110] Notably, the UK Competition and Markets Commission is required to perform ex post evaluations of at least two cases each year. In the U.S., The 21st Century Competition Commission Act (H.R. 4686) was introduced in the House of Representatives in 2017, requiring the agencies to undertake a small number of retrospectives each year.

[111] Joseph Farrell and John Kwoka, "Resetting Merger Policy in the New Administration," *Concurrences*, 2016.

[112] This methodology compares the price change for a merger-related product to any price change for comparable products not affected by the merger. This nets out non-merger causes such as cost changes or demand shifts. The data requirements are far less than for full structural

5.2 Increase Agency Resources

The Federal Trade Commission and the Antitrust Division of the Justice Department share duties for merger control, and the magnitude of their tasks have changed over time. While their budgets have increased steadily, there are reasons to conclude that those increases have not kept up with the resource requirements to fully perform those tasks. Accordingly, one essential component of merger reforms is an increase in their resources which, together with certain administrative changes, will help ensure their capacity to effectively pursue their mission.

The case for additional resources can be seen by examining the numbers of merger investigations undertaken by the agencies over time as the number of reported mergers rises. Mergers over a certain size–currently about $85 million-- are required to pre-notify the antitrust agencies, after which the agencies decide which to formally investigate. We would expect the number of investigated mergers to rise in tandem with any increase in the number of reported mergers, reflecting the likely fact that the fraction of problematic mergers remains roughly constant.[113]

The data in Table 3 shows, however, that between 2010 and 2017, the number of investigations has risen only from 42 to 51, while the number of reported mergers nearly tripled, rising from 716 to 2052. Since the year 2010 was a bit of an anomaly due to the financial crisis, one could justifiably compare 2011 to 2017. But then the number of investigations in fact has *fallen* even as mergers rose by 76 percent. The next column confirms this impression of declining enforcement: the percent of reported mergers subject to investigation has declined from an average of 3.7 percent in the first four years shown to 2.8 in the last four years–a 25 percent decline in the rate at which reported mergers are subject to investigation.

---

econometric analysis. See *MMCR* for discussion.

[113] Indeed, if that fraction is not constant, it would seem more likely that it increases with the number of mergers, as firms explore the boundaries of what might be approved by proposing ever more problematic mergers.

TABLE 3

YEAR	MERGERS REPORTED UNDER HSR	NUMBER INVESTIGATED	PERCENT INVESTIGATED	ANTITRUST DIVISION FUNDING ($M)
2010	716	42	3.8	163.2
2011	1166	55	3.9	162.8
2012	1429	49	3.5	159.6
2013	1326	47	3.6	159.0
2014	1663	51	3.2	160.2
2015	1801	47	2.6	162.2
2016	1832	54	3.0	165.0
2017	2052	51	2.6	165.0

Note: Percent investigated is calculated based on a total adjusted for timing of reports and investigations.

Source: HSR Annual Report, DOJ and FTC, 2018

These data suggest growing resource constraints on the agencies as they pursue their mission. This is the result of the rising costs of investigating mergers but without commensurate increases in agency budgets. One reason that the costs of the antitrust mission have increased is the diminished role for the structural presumption since at present all potentially problematic mergers, regardless of size, undergo full and expensive evaluation. Another reason is that the economic methodology for evaluating mergers is now more complex, laden with concepts such as upward pricing pressure (and its variant, generalized upward pricing pressure), critical loss analysis, diversion ratios, merger simulations and the like. Merger evaluations now entail burdensome requests for company data, large data sets, complex data handling, sophisticated economic modeling and econometric analysis, vigorous (and expensive) disputes between the agencies and the merging parties. Estimates of the costs of bringing a major case run into the tens of millions of dollars for the agencies, and yet more for deep-pocketed merging parties.

Table 3 documents the budget for the DOJ during the 2000-2017 period. As shown there, increases in nominal DOJ budgets are minuscule and have not even kept pace with inflation, much less the growth of mergers and the costs of merger review.[114] Over the same eight year period as the number of reported mergers increased by 76 percent, the agency budget rose by exactly one percent in nominal terms, and fell by fully 10 percent in real (inflation-adjusted) terms. Given that the mission of the agencies is to police a $20 trillion economy, with upwards to 2000 sizeable mergers per year, this makes clear that the resource constraint binds, and binds ever more tightly with each passing year. It is no surprise, therefore, to observe the number of investigations increasingly falling behind the needs of the process.[115]

These considerations argue for a greater resource base for the antitrust agencies, but such an increase might usefully be accompanied by two further considerations. First, given the volatility of merger frequency, it would be prudent to allow the agencies in some fashion to match their resources to rising and falling needs from year to year, rather than facing shortfalls one year and excesses in others. This could be accomplished by allowing some discretion to bank unused resources over some very limited period of time. Another method would be to tie resources more closely to the number of reported mergers, perhaps by simply allowing HSR filing fees to flow directly into agency budgets, rather than, as they do at present, serve as offsets to congressional appropriations.[116]

If some such plan were put into effect, it might be accompanied by a requirement that the agencies provide further information and explanation of their workload and use of resources on an on-going basis. This could include data of the sort heretofore provided in the FTC and DOJ

[114] Between 2010 and 2017, the GDPPI rose 11.2 percent. The FTC budget includes substantial appropriations for its consumer protection mission, obscuring the change specific to antitrust. For that reason, only DOJ data are reported here, but where comparisons have been possible, the FTC's antitrust budget and that of DOJ are highly correlated.

[115] At especially busy times, in order to pursue certain merger investigations and cases, the antitrust agencies sometimes have had to borrow legal and other staff from elsewhere in government. In addition, some companies have been known to time their merger filings in order to "pile on" when the agencies are already very busy, in the hope of getting a more cursory review and clearance.

[116] That is, while agency budgets are fixed, by Congress, the appropriations process views these fees as revenue dollares towards the budgeted amounts. It should also be noted that there are current legislative proposals to raise these fees. See note 55.

publications cited above,[117] as well as explanations of any resource transfers from year to year, and the added burdens of incremental cases for which the resources were applied.

It also goes without saying that for an agency to be effective agency, additional resources are necessary but not sufficient. Of singular importance is dedication of the agency leadership to good policy and practice, and motivation of staff to do the same.

5.3 Improve Judicial Education in Modern Merger Analysis

Much of the reform program just described would be to little avail if the judiciary is not equipped to understand and apply modern merger analysis.[118] Judges hearing merger cases must, for example, grasp the foundation of the merger guidelines–market substitution and definition, methods for determining competitive harms, the role of concentration, standards for evidence and proof–as well as basic economic concepts such as incentives, bargaining, diversion, and so forth.[119] They must also be receptive to arguments concerning potential competition, exclusionary practices, innovation issues, and other competitive concerns. Indeed, antitrust trials are infrequent, so that a federal district judge might see a merger case only once every five or ten years. This creates a burden on the court to get up to speed on a specialized area of the law that is unlike any other. Concern for their ability to communicate increasingly technical issues to the courts likely leads the agencies to avoid bringing certain challenges, or settling for remedies (and weak ones at that), rather than expending resources on a trial that risks not just losing the case in hand but also complicating similar future cases. The result is that the agencies on balance challenge too few mergers–focusing on securing wins rather than bringing all cases that should be brought, much less testing the limits of what the law proscribes.[120]

---

[117] FTC and DOJ, *Merger Challenges Data*, 2003. FTC, *Horizontal Merger Investigations Data*, 2013

[118] The terms "modern merger analysis" and "modern antitrust" are sometimes still used to describe the now thirty-year old Chicago attack on fifty-year-old antitrust, despite both being well out of data.

[119] The Justice Department has made this very point in its recent appeal of a federal district court's decision to permit the merger of Comcast and Time Warner to proceed. See Motion of the United States, May 2018. Full disclosure: I consulted for the Justice Department in the runup to this case.

[120] Indeed, a perfect winning record–as sometimes touted by the agencies as indicating

An additional complicating factor is the active promotion of the Chicago School laissez-faire view of mergers and many business practices. This view has created an increasing burden against antitrust intervention and in favor of efficiency explanations for myriad practices and mergers. It is ironic that even as these simplistic free market views have been in retreat in economics, they have become ever more entrenched in the judiciary. Moreover, a major source of this continuing influence of the Chicago view is the so-called "judicial education" program of the Law and Economics Center (LEC) hosted at George Mason University and funded by major corporate interests.[121] This program proudly announces that "[t]o date, over 5,000 federal and state judges from all 50 states and the District of Columbia, including three current U.S. Supreme Court Justices, have participated in at least one of the LEC's judicial education programs."[122] There is nothing remotely equivalent providing judges with an alternative mainstream and modern perspective on antitrust economics and policy.

Progress in instituting real and necessary reforms of merger policy will therefore require a judicial education program to counterbalance this heavily promoted but thoroughly outdated view. It will also require, of course, a consistent effort by the agencies to present the courts with clear and cogent arguments, buttressed by the best possible evidence for their arguments, and willing to risk losing the occasional case for the sake of establishing a sound argument and thereby signaling to companies their risk in pursing such mergers and practices . Such an effort by the agencies would in the short term provide good advice to the judiciary on the case before it, and in the longer term help to create a neutral information basis for understanding antitrust principles and practice.

6. FOUR ADDITIONAL ISSUES DESERVING CONSIDERATION

All of the above proposals represent reforms for which there is at the present time good evidence of their need and efficacy. There are, in addition, four additional issues and initiatives

---

good work–is a clear indication that the agency is not pursuing the optimal number of cases, but rather, limiting case-bringing to those with safe and predictably successful outcomes.

[121] www.publicintegrity.org/2013/03/28/12368/corporations-pro-business-nonprofits-foot-bill-judicial-seminars

that deserve further consideration, development, and perhaps, adoption. Here, briefly, we list four such areas.

6.1 Analyze Common Ownership

One concerns common ownership, or as it is sometimes called, horizontal shareholding. This arises when firms in the same market are owned or controlled by the same third party or parties. In the most frequently analyzed case, a small number of equity funds hold significant ownership stakes in each of a few companies in the same market, thereby arguably influencing those firms to behave in a less competitive, if not fully coordinated, way. Clearly, in the limit, the logic behind this is unimpeachable: if a single equity fund held controlling interests in all firms in a market, it would be expected to exercise that control to moderate or eliminate competition among sellers since seller competition would diminish profits and hence the value of its combined ownership stakes. The key questions about this scenario are its magnitude and mechanism, that is, the structure of the relevant equity funds holdings, the structure of the industry in which funds have equity stakes, and the method by which the control is exercised.

Concern over common ownership and control is itself not altogether new, but recent empirical work by Azar et al has elevated the issue by providing the first empirical corroboration.[123] Their work begins by reporting the fractions of leading firms' shares in several industries held by the same few mutual fund families. They examine the airline industry in particular, and find that varying degrees of–and changes in–institutional shareholding in the major airlines have served to raise ticket prices beyond what otherwise would occur due to product market concentration. While not without its critics and skeptics,[124] this work has attracted attention for certain obvious reasons. It reflects the fundamental economic principle that agents follow their incentives and the indisputable fact that U.S. stock ownership has

[122] https://masonlec.org/divisions/mason-judicial-education-program/

[123] Jose Azar, Martin Schmalz, and Isabel Tecu, "Anticompetitive Effects of Common Ownership," *Journal of Finance*, 2018. Also see Einer Elhauge, "Horizontal Shareholding," *Harvard Law Review*, 2016.

[124] See, for example, Pauline Kennedy, Daniel O'Brien, Minjae Song, and Keith Waehrer, "The Competitive Effects of Common Ownership: Economic Foundations and Empirical Evidence," 2017

dramatically consolidated. It also reflects the understanding that profit-maximizing agents are creative in identifying new ways of achieving old objectives. Accordingly, policy must be equally attentive in order to prevent its being finessed by solely focusing on outdated mechanisms. As a result, concern over common ownership deserves attention even as more empirical verification is developed.

6.2 Mergers in the Tech Sector

Several previously discussed issues intersect in analyzing mergers and acquisitions in the tech sector. These include vertical integration, innovation, nonprice effects, exclusionary strategies, and potential competition. Each of the five major tech companies--Amazon, Apple, Facebook, Google, and Microsoft--has its record of innovative achievement, but each has also been very active in acquiring other firms. Microsoft and Google have each acquired more than 200 firms, while the other three account for nearly one hundred each. Most of these have been competitively innocuous or even beneficial, but a nontrivial number raise competitive concerns. Examples include Google's acquisitions of YouTube, Doubleclick, IMbD, and Waze; Microsoft's acquisitions of LinkedIn and Skype; Facebook's acquisitions of Instagram and WhatsApp;[125] Amazon's acquisitions of IMDb, Audible and Zappos; and Apple's recent acquisition of Shazam.

The issues raise by such mergers are familiar but their standard analysis is more problematic in the context of fluid and changing technology, pervasive uncertainties, and substantial informational asymmetries between the firm and agency. For example, while permitting such mergers does not affect measures of current concentration, those mergers may prevent future deconcentration of those industries by removing an outside firm that poses a real or potential threat to its core business. Moreover, by incorporating added functions into a basic

[125] The WhatsApp story is particularly telling since prior to its acquisition by Facebook, it offered an alternative communications platform with secure messaging. Despite assurances at the time of the acquisition that WhatsApp's privacy policies would be preserved, Facebook appears to have encroached on that agreement. If WhatsApp had remained independent, the present concern over Facebook's privacy policies might have prompted users to migrate to that alternative. That option was eliminated by this acquisition. See Sheera Frenkel and Cade Metz, "WhatsApp Co-Founder Leaving Facebook Amid User Data Disputes," *New York Times*, April

platform, such acquisitions make competition or entry by any other platform doubly difficult, reduce current choice of customers, and eliminate independent sectors of technological initiative that might otherwise result in alternative paths for the sector.

These dimensions of possible concern are generally less well developed in current merger analysis but they are central to the competitive effects of mergers in the tech sector. Those facts imply that standard approaches to such mergers are likely to be inadequate and result in permissiveness toward tech mergers–precisely as has been seen. Accordingly, a different approach seems necessary in order to prevent the slow erosion of competition in this sector. That approach needs to reflect the acute informational asymmetries faced by the agencies and the pervasive uncertainties of technological change in this sector. As a result, a more effective and feasible policy might be framed as an affirmative burden on any dominant tech company proposing mergers and acquisitions. That is, for such companies, any merger would require justification to the agencies, rather than the current system in which the agencies must demonstrate a likelihood that a target company might ever become a viable alternative technology in order to sustain a challenge. This approach would be designed to preserve current consumer choice as well as future competitive possibilities, all without challenging the tech companies' core technologies.

6.3 Use of Guidelines

Another area deserving further work is the development of guidelines covering topics not addressed in the Horizontal Merger Guidelines. The promulgation of guidelines has considerable benefit to the agencies, the judiciary, and the business community. It provides insight into the agencies thinking, so that parties contemplating actions will know how those actions will be viewed. It allows interested parties to evaluate and suggest improvements in the agencies' analytical framework. The evolution of the Merger Guidelines–for all the criticism of some specifics made herein–has been an exercise in good economic policy.

Such guidelines would be useful in at least two areas. One is vertical integration, where current economic thinking about possible competitive concerns is sufficiently concrete as to

2018.

permit a statement providing guidance to outside parties.[126] A second area concerns the treatment of innovation. Here the economic framework may be more difficult to fully specify, but that does not prevent issuance of a structured approach that would set out screens and considerations, all of which would be valuable to outside parties, and likely to the agencies as well. One can also envision useful efforts to provide guidance with respect to other areas of antitrust concern.

6.4 Use of Presumptions

A final topic that deserves further consideration is the development of presumptions in areas beyond the structural presumption that has already been proposed herein. As noted there, a presumption against a structure or action would be an efficient as well as effective enforcement strategy when the frequency of procompetitive outcomes is not large and/or when the alternative case-specific inquiry is costly and not likely to significantly reduce the error rate. Cited in that discussion was evidence that such is the case for mergers with certain structural characteristics.

It would be useful to evaluate whether presumptions would be appropriate for other areas of antitrust such as strategically low prices ("predation"), tying and bundling, selective discounting, and certain distribution practices. Again, the criterion should not be perfect accuracy in predicting the outcome, nor even complete characterization of scenarios, but rather specification of criteria for differential treatment–that is, condemnation or clearance--that is superior to full-blown, rule-of-reason inquiries for all cases, given the costs and uncertainties associated with the latter. Where empirical evidence with respect to the frequency and costs of errors is available, moving toward presumptions would address Posner's characterization of open-ended inquiries as a "blot on the judiciary."

7. REVIVING CONTROL OF MERGERS: A SUMMING UP

These ten proposals constitute a reform program for a broader and bolder merger control that has every prospect for successfully addressing the weaknesses and even outright failures of recent policy. It would strengthen the economic and administrative foundations of policy; it

[126] Prior efforts to develop guidelines for vertical mergers failed. See, again, Salop,

would make the enforcement process more efficient and certain; it would address a wider array of competitive concerns; it would rely on the best evidence as a complement to economic modeling; and it would simplify what needs to be presented to the judiciary. It would represent a restoration of the meaning of "competition" and a restatement of the agencies' mission.

While bold and broad, it should be noted that most of the substantive reform proposals could be implemented unilaterally by the agencies. The agencies do not need further legislative authority, for example, to enforce current guidelines or to rely on the structural presumption; to pay greater attention to nonprice effects, innovation, impediments to entry, vertical mergers; and to resist arguments with respect to efficiencies and avoid the use of remedies. These are all within their legal authority, and indeed, arguably already their responsibility, a responsibility that has not always been met in practice. A few other reforms might require minor modifications of legislative authority. For example, challenges to potential competition mergers would be facilitated by language that indicated mergers eliminating a potential entrant should be evaluated using the same type of proof as all others.

It might also be noted that many components of this reform package are familiar from past antitrust.[127] That, too, is telling since many of the weaknesses of current policy have arisen as practice has narrowed its focus and withdrawn from areas of past enforcement. The Merger Guidelines, for example, have a long history, but since those guidelines have gradually become much more permissive, restoring some of their scope and strictness would represent a straightforward step toward improved merger control. Relatedly, reliance on the structural presumption would not be so much revolutionary as restorative of an approach sanctioned by court decisions, although in practice largely abandoned. Greater attention to exclusionary effects, nonprice consequences, and vertical foreclosure, as well as different treatment of

"Invigorating Vertical Merger Enforcement," *Yale Law Review*, 2018.

[127] In this respect, it should be apparent that this proposal is altogether different from the more "populist" reforms of antitrust that some have proposed. Those would modify the antitrust statutes, embrace a number of non-economic objectives, and re-orient antitrust to oppose bigness per se. I do not believe those proposed changes are necessary, since policy and practice based on the reforms described here would have addressed the decline in competition in the economy that has prompted their understandable frustration with recent merger enforcement.

efficiencies and remedies would all be well within the discretion of the agencies, since these are implied by language prohibiting “substantial lessening of competition.” This broader and bolder merger control proposal resurrects doctrines and practices that served competition and consumers well in the past, and would do so again.

It is, of course, impossible to predict the actual effect of this package of merger control reforms with any certainty. But as it happens, we know a lot. The reason is that over the last 40 years we have essentially run the experiment in reverse, and we know how it comes out. Beginning with the Chicago School’s skeptical view of antitrust intervention generally and abetted by the narrow view of antitrust implied by increased economic sophistication and promoted by certain interests, we have moved toward an accommodating policy toward mergers. We now have a good idea of the results. As discussed at the very outset of this essay, the results of permissiveness have included higher concentration and often prices, reduced entry and dynamism, and abnormal profit levels in the U.S. economy. Other researchers have found evidence that the rise in concentration has also reduced innovation, caused wages to stagnate, hindered productivity growth, and enlarged income inequality.

These adverse effects did not have to be. The reform package detailed herein would ensure that it does not continue.