
Assessing The Effect Of Mergers On Labor Markets

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Law360, Boston (January 3, 2019, 1:34 PM EST)



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Modern U.S. antitrust law is motivated by the protection of consumer welfare. Since the passage of the Sherman Act in 1890 and the Clayton Act in 1914, enforcement agencies have concentrated primarily on safeguarding competition in product markets. More recently, however, regulators have suggested extending this focus to labor markets. Consistent with this evolving view, the [Federal Trade Commission](#) organized two panels devoted to antitrust issues in the labor market as part of its October 2018 hearing on competition and consumer protection.¹ In that same month, FTC Chairman Joseph Simons announced that FTC staff have been instructed to “look for potential effects on the labor market with every merger they review.”²

Currently, U.S. antitrust enforcement rules and guidance do not provide much explicit direction on how to evaluate labor market power. The [U.S. Department of Justice](#) and the FTC’s 2010 Horizontal Merger Guidelines discuss the effects of mergers between competing buyers (e.g., buyers of labor) only tangentially,³ and lack any discussion of the potential effects of mergers on labor markets.^{4,5} The “Antitrust Guidance for Human Resource Professionals,” published jointly in 2016 by the DOJ and FTC, describes conduct that would be considered illegal collusive behavior *among* employers, but it does not provide guidance on how the agencies would scrutinize labor market power in the context of mergers.⁶

How should the analysis of a potential merger’s labor market effects be approached? Can the same approaches and tools used to assess competitive effects in the product market be readily applied? As antitrust scholars described in an October 2018 FTC hearing, there is a growing debate on these questions.⁷ To provide antitrust practitioners with background on a number of issues relevant to this debate, we provide an easily digestible summary of a [recent paper](#) by Suresh Naidu (Columbia University), Eric A. Posner (University of Chicago) and E. Glen Weyl ([Microsoft Research](#)), published in the *Harvard Law Review*, which offers one perspective on the approaches and methods on which antitrust agencies may rely when evaluating the labor market effects of mergers. After briefly introducing the concept of market power in labor markets (following Naidu, Posner and Weyl), we summarize NPW’s assessment of how methods originally developed for antitrust analysis in product markets can be extended to study the effects of mergers on labor market outcomes.

What Is Employer Market Power and What Are Its Sources?

Traditionally, antitrust regulators and enforcement agencies have been concerned primarily with seller-side (or downstream) market power, i.e., the power wielded by a single seller (monopolist) or a handful of sellers (oligopolists) to “profitably charge prices above the competitive level for a sustained period of time.”⁸ Market outcomes may also, however, be influenced by *buyer-side* (or upstream) market power, which can result from a situation called “monopsony” or other sources of buyer bargaining leverage.⁹

In product markets, monopsony refers to a situation in which one firm (or a small group of firms) buys most of an input that is produced by many sellers. This dominant buyer faces an upward-sloping supply curve, and therefore has the ability to put downward pressure on the price of the input. Equivalently, in labor markets, monopsony refers to a situation in which a single employer (or a small group of employers) dominates a labor market, so that an employer may have power to put downward pressure on wages by hiring less labor than it would in a competitive market.¹⁰ As NPW explain, monopsony may arise in labor markets due to economies of scale and other factors that confer advantages on large firms.¹¹ These advantages can lead firms to merge, which may, in turn, result in labor market concentration, with only a few firms dominating the local hiring market. Mergers of firms that compete in the same labor market may increase the merged firm’s incentive to purchase less labor in order to reduce equilibrium wages.¹² NPW cite to several recent empirical studies that suggest a substantial degree of labor market concentration throughout the U.S., and especially in rural areas.¹³

Employers may also derive market power from features specific to the labor market. In particular, the efforts involved in a job hunt may lead to “search frictions” that give employers bargaining power over their current employees. NPW assert that differentiation in job and workplace characteristics exacerbates search frictions and increases employers’ power in wage negotiations with current employees and job applicants.¹⁴ In the context of such negotiations, a merger between two competing employers may increase the bargaining power of the merged entity by reducing the number or value of alternative employment options.¹⁵

Metrics and Analytic Tools to Evaluate the Effects of Mergers on Labor Markets

While antitrust regulation encompasses both seller- and buyer-side market power, regulatory agencies have typically focused on assessing market power in the product market rather than the labor market. As NPW point out, the 2010 Horizontal Merger Guidelines offer an analytical framework, metrics, and screening tools explicitly aimed at analyzing the product-market effects of mergers, but they do not provide analogous guidance for labor market outcomes.¹⁶ However, NPW argue that enforcement agencies do not need to develop an entirely new set of analytical approaches and tools to assess labor market effects, because approaches and tools that are standard in product-market merger analysis can also be applied to the evaluation of labor market effects.¹⁷ Below, we summarize NPW's discussion of three analytical approaches and their applicability to the labor market: (1) the market definition and concentration approach, (2) the downward wage pressure approach, and (3) the merger simulation approach.

Market Definition and Concentration Approach

The first approach addressed by NPW is the market definition and concentration approach. This approach, designed to evaluate the effects of a proposed merger on the product market, generally involves (1) defining the relevant product market, (2) measuring the level of concentration in that market, and (3) assessing the change in the concentration that would result from the proposed merger. The 2010 Horizontal Merger Guidelines note that “[m]ergers that cause a significant increase in concentration and result in highly concentrated markets are presumed to be likely to enhance market power.”¹⁸

The starting point in analyzing a merger's product-market effects need not always be a formal definition of the relevant product market, but it is nonetheless useful in evaluating the alternative products available to consumers. When formal market definition is called for, the 2010 Horizontal Merger Guidelines propose a specific test — the hypothetical monopolist test — to identify the boundaries of the relevant market.¹⁹ Intuitively, the goal of the HMT is to identify the smallest set of substitutable products such that a single seller of those products — if it were to become a monopolist in that market — could profitably impose a “small but significant and non-transitory” increase in price.²⁰ Agencies commonly use a threshold of 5 percent as constituting SSNIP.²¹

From NPW's perspective, the HMT can be easily adapted to the labor market as a “hypothetical *monopsonist* test.”²² This test would identify the smallest labor market (defined in terms of job type, industry, geography, and/or other characteristics) in which a hypothetical sole employer could *reduce* wages (as opposed to increase prices) by a small but significant and nontransitory amount.²³ NPW suggest that the threshold from the product market could also apply here, with a 5 percent wage reduction for one year signifying a small but significant and nontransitory decrease.²⁴

Once the relevant market is defined, a useful indicator of the merger's competitive effects can be found in the concentration increase and resulting concentration level

that it is expected to bring about. In the context of the product market, agencies commonly measure concentration using the Herfindahl-Hirschman Index, which is equal to the sum of the squared market shares of each firm in the relevant market.²⁵ The higher the post-merger HHI and the greater the increase in HHI resulting from the merger, the more likely the agencies are to raise concerns about potential adverse competitive effects.²⁶

NPW believe that “[b]ecause of the symmetrical nature of labor and product markets,” the agencies “should take the same approach when analyzing the effects of mergers on labor markets” as when analyzing the effects of mergers on product markets, using labor market shares in place of product market shares.²⁷

Downward Wage Pressure Approach

Another metric that NPW discuss for evaluating a merger’s competitive effects on the product market is the upward pricing pressure index. At its core, the UPP approach evaluates the net effect of two opposing forces: (1) upward pricing pressure due to the elimination of competition between the merging firms, and (2) downward pricing pressure due to any merger-specific efficiencies.²⁸

NPW argue that a downward wage pressure index, analogous to the UPP index, can be calculated to evaluate the impact of a merger on labor market outcomes.²⁹ According to NPW, the DWP index is the product of two terms:

- **Markdown**, calculated as the inverse of the labor supply elasticity, which measures a firm’s premerger market power in the upstream (i.e., buyer-side) market. The markdown measures the extent to which the firm is able to push wages below the worker’s marginal revenue product (i.e., below the “additional revenue that employing that worker generates”).³⁰ In a perfectly competitive labor market, wages equal the marginal revenue product; hence, the markdown is a measure of the degree to which the wage level departs from the competitive level.
- **Diversion ratio**, the share of workers employed at one of the two potentially merging firms for whom the other firm is the next-best employment option.³¹

According to NPW, “[t]he DWP does not directly tell us how much workers’ wages will fall” following the merger, but rather represents “the tax on wages to which the merger is equivalent.”³² To assess the impact on wages, a “pass-through rate” — i.e., the portion of the tax “passed through to workers as a decreased wage [as opposed to] absorbed by the employer and/or passed through to consumers as higher prices” — would need to be estimated.³³

Merger Simulation Approach

NPW also discuss the labor-market applicability of a third approach to merger analysis: merger simulations. In merger simulations, economists estimate a merger’s price effects using economic models of profit-maximizing firms competing in an oligopolistic framework.³⁴ According to NPW, these models and empirical techniques can be also be applied to study the effects of mergers on labor market outcomes; and indeed, some of the necessary adaptation work has already been undertaken.³⁵

Other Considerations

In the context of product markets, NPW note, the evaluation of potential mergers requires consideration of factors that may not be captured by formal economic models. NPW argue that consideration of other factors — such as efficiencies, product/job positioning and firm entry — should also be part of merger evaluation in the context of labor markets.³⁶

- **Efficiencies:** The 2010 Horizontal Merger Guidelines recognize that efficiency gains may justify a merger if they are merger-specific (i.e., unachievable without the merger) and large enough to overcome anti-competitive effects of the merger on consumers.³⁷ NPW argue that an analogous standard should be applied in the context of labor markets: That is, efficiency gains may justify a merger if they are merger-specific and large enough to overcome anti-competitive effects of the merger on *workers*.³⁸
- **Job Repositioning:** When two firms merge, other firms in the relevant market may respond by “repositioning” (i.e., adjusting the characteristics of their own products).³⁹ Such repositioning may limit the merger’s price effects.⁴⁰ NPW point out that a similar argument can be made in the context of labor markets: If non-merging employers reposition their job functions to attract workers who may be negatively affected by the merger, these new employment opportunities may partially offset the merger’s anti-competitive harm to workers.⁴¹
- **Entry:** NPW acknowledge economic theory that suggests that mergers may, by raising prices of the downstream product, lure new entrants to the market, thereby mitigating the merger’s upward pressure on prices. Whether such a phenomenon occurs in practice is a topic of debate, however, and NPW argue that market frictions make the phenomenon particularly unlikely in labor markets.⁴² In particular, NPW contend that “extensive labor market frictions” created by imperfect information about firm characteristics and worker preferences will deter entry of employers into the labor market.⁴³

Conclusion

There has been increasing concern about the effects of mergers on buyer-side market power, particularly in the labor market. Yet current guidelines on merger analysis provide little guidance on approaches and tools for analyzing competitive effects of mergers in the labor market. NPW offer one perspective: Regulators and enforcement agencies can easily rely on the array of economic models, tools and techniques that are already used to analyze merger effects in product markets. As demonstrated in recent FTC hearings on labor market antitrust issues, however, the application of existing tools and policies to the labor market is subject to a growing and important debate.

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Endnotes

- 1 See “FTC Hearings on Competition and Consumer Protection in the 21st Century Continue with Discussions on Multi-Sided Platform Businesses, Acquisitions of Nascent Competitors, and Antitrust in Labor Markets,” Federal Trade Commission, October 11, 2018, available at <https://www.ftc.gov/news-events/press-releases/2018/10/ftc-hearings-competition-consumer-protection-21st-century>.
- 2 See “FTC Considers Workers in Deal Reviews,” *Global Competition Review*, October 4, 2018, available at <https://globalcompetitionreview.com/article/usa/1175255/ftc-considers-workers-in-deal-reviews>.
- 3 See “Horizontal Merger Guidelines,” U.S. Department of Justice and the Federal Trade Commission, August 19, 2010 (henceforth “2010 Horizontal Merger Guidelines”), available at <https://www.justice.gov/atr/file/810276/download>, § 12.
- 4 See Suresh Naidu, Eric A. Posner, and Glen Weyl, “Antitrust Remedies for Labor Market Power,” *Harvard Law Review*, December 2018, Vol. 132(2): 536-601, (henceforth “NPW”), pp. 539–540.
- 5 2010 Horizontal Merger Guidelines.
- 6 “Antitrust Guidance for Human Resource Professionals,” U.S. Department of Justice Antitrust Division and Federal Trade Commission, October 2016, available at <https://www.justice.gov/atr/file/903511/download>.
- 7 See “FTC Hearing 3: Competition and Consumer Protection in the 21st Century (Session 1),” Federal Trade Commission, October 16, 2018, available at <https://www.ftc.gov/news-events/audio-video/video/ftc-hearing-3-competition-consumer-protection-21st-century-session-1>; see also “FTC Hearing 3: Competition and Consumer Protection in the 21st Century (Session 2),” Federal Trade Commission, October 16, 2018, available at <https://www.ftc.gov/news-events/audio-video/video/ftc-hearing-3-competition-consumer-protection-21st-century-session-2>.
- 8 *ABA Section of Antitrust Law, Market Power Handbook: Competition Law and Economic Foundations*, Second Edition, 2012, p. 1.
- 9 See C. Scott Hemphill and Nancy L. Rose, “Mergers That Harm Sellers,” *The Yale Law Journal*, 2018, 127(7): 1742–2203 (henceforth “Hemphill and Rose, 2018”), p. 2078.
- 10 Strictly speaking, “monopsony” refers to a market with a single buyer, whereas “oligopsony” refers to a market with a handful of powerful buyers. In common usage, however, “monopsony” and “monopsony power” are used to refer to situations with one or several powerful buyers. Following NPW (p. 538), we use “monopsony” to refer to both situations.
- 11 NPW, p. 554.
- 12 Hemphill and Rose, 2018, p. 2079.
- 13 See José Azar, Ioana Marinescu, and Marshall Steinbaum, “Labor Market Concentration” NBER Working Paper No. 24147, 2017, available at <https://www.nber.org/papers/w24147>; see also Efraim Benmelech, Nittai Bergman, and Hyunseob Kim, “Strong Employers and Weak Employees: How Does Employer Concentration Affect Wages?” NBER Working Paper No. 24037, 2018, available at <https://www.nber.org/papers/w24307>.
- 14 NPW, pp. 553–556.
- 15 Hemphill and Rose, 2018, p. 2081.
- 16 NPW, pp. 539–540.
- 17 NPW, pp. 574–595.
- 18 2010 Horizontal Merger Guidelines, p. 3.
- 19 See discussion in NPW, pp. 574–575; see also 2010 Horizontal Merger Guidelines, p. 3.
- 20 2010 Horizontal Merger Guidelines, pp. 8–10.
- 21 2010 Horizontal Merger Guidelines, p. 10.

- 22 Note that others have suggested adapting the HMT to buyer-side markets. See José A. Azar, Ioana Marinescu, Marshall I. Steinbaum, and Bledi Taska, "Concentration in US Labor Markets: Evidence from Online Vacancy Data," NBER Working Paper No. 24395, available at <https://www.nber.org/papers/w24395.pdf>; see also "Roundtable on Monopsony and Buyer Power – Note by the United States," Organisation for Economic Co-operation and Development, October 13, 2008, available at <https://www.ftc.gov/sites/default/files/attachments/us-submissions-oecd-and-other-international-competition-fora/monopsony.pdf>.
- 23 NPW, pp. 574–575.
- 24 NPW, pp. 575–576.
- 25 2010 Horizontal Merger Guidelines, p. 18.
- 26 2010 Horizontal Merger Guidelines, p. 19.
- 27 NPW, pp. 576–577. NPW also assert specifically that there is "symmetry of product market and labor market concentration" (p. 577; emphasis added).
- 28 Joseph Farrell and Carl Shapiro, "Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition," *The B.E. Journal of Theoretical Economics*, 2010, Vol. 10(1), p. 6.
- 29 NPW, pp. 578–583.
- 30 NPW, p. 579.
- 31 NPW, pp. 579–580.
- 32 NPW, p. 581.
- 33 NPW, pp. 581–582.
- 34 2010 Horizontal Merger Guidelines, p. 21; NPW, p. 583.
- 35 NPW, pp. 584–585.
- 36 NPW, pp. 585, 589–590.
- 37 2010 Horizontal Merger Guidelines, § 10.
- 38 NPW, pp. 586–587.
- 39 NPW, p. 589.
- 40 See, e.g., Robert D. Willig, "Merger Analysis, Industrial Organization Theory, and Merger Guidelines," *Brookings Papers on Economic Activity: Microeconomics*, 1991, Clifford Winston & Martin Neil Baily Eds., available at https://www.brookings.edu/wp-content/uploads/1991/01/1991_bpeamicro_willig.pdf, pp. 304–305.
- 41 NPW, pp. 589–590.
- 42 NPW, p. 590.
- 43 NPW, p. 590.

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