

Economics at the FTC: Office Supply Retailers Redux, Healthcare Quality Efficiencies Analysis, and Litigation of an Alleged Get-Rich-Quick Scheme

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Abstract: We discuss in this essay three of the matters on which economists in the Bureau of Economics (BE) at the Federal Trade Commission (FTC) have worked this past year. BE revisited familiar ground in the first matter, a proposed merger of office supply retailers. The second part of the essay considers efficiency claims in health care mergers, with focus on the

I. Introduction

A. The Bureau of Economics

The Bureau of Economics (BE) at the U.S. Federal Trade Commission (FTC) provides

During fiscal year 2013, U.S. merger and acquisition activity declined slightly, with 1,326 transactions that were reported to the U.S. Department of Justice (DOJ) and the FTC, as compared to 1,429 in fiscal year 2012.² M&A activity has been highly cyclical: Over the past decade, these figures have ranged between 716 (in 2009) and 2,201 (in 2007). The vast majority of proposed mergers are cleared within the “waiting period” that is imposed by the HSR Act (usually 30 days; 15 for cash-tender offers or bankruptcy sales).

During FY 2013, the FTC opened 25 formal merger investigations, and brought 23 merger enforcement actions (some of which were initiated in preceding years). Sixteen of these actions involved consent orders (permitting the transaction to proceed, albeit with modifications); two transactions were abandoned or restructured during the investigations; the Commission filed a complaint in federal court to permanently enjoin one transaction; and four transactions prompted administrative litigation.

The FTC’s original enabling legislation in 1914 contains a mandate to conduct research,³ which BE fulfills by undertaking significant research activities throughout the year. This can take the form of Commission studies of important phenomena,⁴ studies that are requested by Congress,⁵ and studies that are initiated by the Bureau or independently by the staff (<http://www.ftc.gov/policy/reports/policy-reports/economics-research>). In addition to economists’ publishing frequently in academic journals, we also have a working paper series.⁶ We sponsor and disseminate mission-related research through seminars and conferences. In November 2013, we hosted our sixth annual Microeconomics Conference.⁷ Topics included the economics of privacy; the effects of Internet-based advertising on search and product quality; and structural models of firm entry and conduct. Plans are well underway for the seventh annual conference, to be held in October 2014.⁸ We also have an active seminar series that features academic and government researchers.

² Federal Trade Commission & U.S. Department of Justice (2014).

³ FTC Act, 15 U.S.C. § 46(f)

⁴ Including an ongoing study of Patent Assertion Entities, <http://www.ftc.gov/news-events/press-releases/2013/09/ftc-seeks-examine-patent-assertion-entities-their-impact>, and a study of self-regulation in the alcohol industry (FTC, 2014a).

⁵ For example, a study of authorized generic drugs (FTC, 2011) and a study of the use of credit scores in the pricing of automobile insurance policies (FTC, 2007).

⁶ See <http://www.ftc.gov/policy/reports/policy-reports/economics-research/working-papers>.

⁷ See <http://www.ftc.gov/news-events/events-calendar/2013/11/sixth-annual-microeconomics-conference>.

⁸ Check <http://www.ftc.gov/news-events/events-calendar/2014/10/seventh-annual-federal-trade-commission-microeconomics> for the program.

B. This Year's Article

In this year's installment of our annual article in the *Review of Industrial Organization's* antitrust and regulation issue, we highlight the work done by BE on two merger investigations and a consumer protection case. The antitrust investigations focused on a merger of office supply retailers and the acquisition of a physician group by a health system. The consumer protection matter involved the sale of training material that purported to help consumers make large profits in financial transactions, which in reality were not achieved by the vast majority of customers.

The section on the Office Depot and OfficeMax merger provides an interesting opportunity to compare the current competitive landscape for the sale of office supplies to that which existed more than 15 years ago when the FTC successfully challenged the merger of Staples and Office Depot. Although many of the empirical techniques used in the previous investigation again proved useful and informative, the conclusions reached were significantly different due to the evolving nature of competition in the relevant market.

Antitrust investigations often focus on the impact of a merger on prices in the relevant market. However, the second section of this article considers instead the impact that mergers can have on the quality of services. Specifically, it discusses the FTC's approach to analyzing the effect that mergers in healthcare markets can have on the quality of care that is provided by the merging parties, which is clearly an important factor that affects consumer welfare. Although the standards of evidence are no different than those that are used to analyze efficiency claims in any merger, the mechanisms for potentially achieving the efficiencies in healthcare settings are unique, and so the analysis must be tailored accordingly. This section starts with a general exposition of that analysis, and then discusses its application to the acquisition of the Saltzer Medical Group by the St. Luke's Health System in Idaho.

The final section discusses the economic analysis that was conducted by the FTC that refuted a particular claim made by the purveyor of an alleged get-rich-quick scheme. The defendants, the Dalbey Educational Institute and associated individuals, were charged with deceptively marketing instructional materials that purported to teach consumers how to find, broker, and earn commissions on seller-financed promissory notes or cash flow notes. When presented with evidence that very few of their clients were eventually able to broker these notes or earn commissions, they offered the creative defense that these individuals suffered from the same sort of behavioral biases that cause many individuals to buy gym memberships that

subsequently go unused. This section describes the evidence that BE economists developed to refute this claim in court.

II. Office Depot / OfficeMax

In 1997, the FTC successfully challenged the proposed merger of Staples and Office Depot (ODP), which, along with OfficeMax (OMX), comprised the office supply superstore (OSS) product market that the FTC successfully alleged in that case (Ashenfelter, et al., 2006).

In 2013, the proposed merger of ODP and OMX would again combine two of the largest office supply retail chains and two of the largest suppliers of office products to businesses in the U.S. In both of these broad segments, ODP, OMX, and Staples supply a range of products that includes: office supplies (e.g., legal pads, tape, staplers, pens, binders, and file folders); printer and copier paper; ink and toner; office furniture; technology products; custom print and copy offerings; and janitorial, sanitation, and break room supplies. Locally and nationally, ODP, OMX, and Staples supplied these products directly to individual consumers and small businesses through their retail stores and to institutions and businesses in a variety of ways that include contractual arrangements.

Much had changed since 1997. In addition to an increased presence of other retailers, such as Wal-Mart and club stores, office supplies could be obtained from the three OSS retailers online, and through other online suppliers such as Amazon. Nonetheless, the traditional bricks-and-mortar competition between OSS retailers that was the focus of the FTC's challenge in Staples/ODP might still have been significant.⁹

In this section, we summarize the empirical analyses conducted by the FTC in assessing the likely competitive effects of the proposed merger in the bricks-and-mortar retail segment. Although confidentiality restrictions prevent us from reporting specific coefficient estimates, the model specification and qualitative discussion of the results below still provide a thorough roadmap of BE's analysis of the empirical evidence in this case.

Similar to the analyses conducted by the FTC's econometric expert in *Staples*, and in subsequent matters such as *Whole Foods*,¹⁰ we used reduced-form regression models to estimate

⁹ See, for example, a *Wall Street Journal* study from December 12, 2012, that suggested Staples' online prices were lower when the requesting computer was located near an ODP or OMX retail store, Valentino-Devries (2012)

¹⁰ See Murphy (2007).

the relationship between ODP and OMX margins and prices and the number of competitor stores within given drive-time thresholds of the parties' stores.¹¹ The estimated relationship was then used to predict the effect of the hypothetical closure of all OMX(ODP) stores on margins and prices of ODP(OMX). Again, following *Staples*, we estimated both panel data and cross-sectional regressions.¹² We also used different dependent variables, including store/department-level margins that were constructed from data at the stock-keeping unit (SKU) and department levels; store/SKU-level prices; and store-level price indices that were constructed by the parties.¹³

We applied the regression models to various combinations of ODP and OMX stores and products. While the baseline models included all ODP and OMX stores, we also estimated the models using two subsets of stores: First, we limited the set of stores by excluding any ODP (OMX) store that did not experience any Staples or OMX (ODP) entry or exit over the sample period. The rationale was that, because demand conditions in these two types of areas may have been fundamentally different, stores in areas that experienced no competing OSS entry or exit over the entire sample period may have been poor controls for stores in areas that did experience such entry or exit.

Second, we limited the set of stores by excluding any ODP (OMX) stores that did not have a Staples store within 30 minutes at any point in the sample period, as the effect of OMX (ODP) entry/exit events on ODP (OMX) prices and margins might have depended on whether a Staples store was proximate.

We considered four sets of products: The baseline models limited the analyses to products in the "consumable office supplies" category, which we defined as office supplies, copy paper, and ink/toner. We also considered three subsets of products for which competitive conditions may have been meaningfully different. First, we excluded copy paper, ink, and toner SKUs, since the degree of competition from mass merchants, club stores, and the Internet might

¹¹ See Ashenfelter, et al. (2006) for a summary of the analyses that were conducted in *Staples*. The approach has the useful attribute of not requiring an a priori market definition. The set of stores included on the right-hand side need not be limited to those within any purported product market.

¹² See Ashenfelter, et al. (2006) for a description of the relative strengths of these approaches.

¹³ Intuitively, there is likely meaningful interaction between the brick-and-mortar and online retail segments. While our analyses did not explicitly model this interaction, the potential effect of online competition nonetheless was captured in our reduced-form results. For example, if consumers viewed brick-and-mortar and online suppliers as highly substitutable, this would have been reflected in our results since margins and prices would be less responsive to the entry/exit of competing brick-and-mortar stores.

bias, we limited the analyses using margins constructed from the SKU-level data to the panel data regression models.

B. Regression Models

Our regression models were similar to those estimated in *Staples*. Let $\ln p_{k,t}$ denote the logarithm of the margin (or price) for ODP(OMX) store k in period t , and $0_{j,t}^x$ denote the number of stores of competitor j within d minutes from ODP(OMX) store k in period t . We specified the panel data regression model based on 0-5, 5-15, and 15-30 minute drive-time thresholds around store k as

$$(1) \ln p_{k,t} = \alpha_k + \beta_j 0_{j,t}^x + \epsilon_{k,t}$$

$$\exp \left[\frac{1}{N} \sum_{k \in \mathcal{K}} \omega_k \left(\frac{m_{k,t}^x}{m_{k,t}^y} - 1 \right) \right]$$

where the average was taken across ODP stores in the last year of the data, and the weights were based on store net sales. We included only ODP stores that would be affected under the hypothetical closure. That is to say, we excluded from the weighted average any ODP store k for which $\mathbb{1}_{k \in \mathcal{K}} = 0$ during the last year of the data.

We used two specifications in our cross-sectional analyses: First, we modified (1) by eliminating the store-level fixed effects and limiting the sample to the last three months of the data.¹⁹ We estimated the effect of ODP (OMX) closures on ODP (OMX) margins using two store populations: ODP (OMX) stores that had a Staples store within 30 minutes, and ODP (OMX) stores that did not have a Staples store within 30 minutes.

While this cross-sectional model was very similar to the model utilized in the panel studies, it did not provide a straightforward answer to the question of how ODP and OMX margins vary in the presence of one, two, and three different OSSs in a geographic area, controlling for the level of non-OSS competition. To address this question directly, we estimated a second cross-sectional model in which we transformed the explanatory variables for ODP, OMX, and Staples into indicator variables that were defined on whether there was at least one ODP (OMX, Staples) store within 30 minutes. In addition, in examining ODP margins, we interacted the OMX and Staples indicator variables, and used an analogous interaction in examining OMX margins. Hence, the question of how ODP and OMX margins varied in the presence of one, two, and three different OSSs in a geographic area, controlling for the level of non-OSS competition, could be answered directly from the regression coefficient estimates in this specification.

C. Results

Our panel

(2006), cross-sectional analyses may be useful particularly in cases in which there are few identifying events. However, cross-sectional analyses are more likely to suffer from omitted variable bias, and this may be particularly true when making comparisons across widely dispersed geographic areas, as is the case here.

With that caveat in mind, we analyzed a cross-sectional specification using ODP and OMX margins that were constructed from the department-level data as the dependent variable. This model directly estimated differences in ODP and OMX margins in the presence of one, two, and three different OSSs in a geographic area, controlling for the level of non-OSS competition. Consistent with our panel study results, we found no relationship between OMX margins and the extent of OSS competition. We also found that ODP margins were lower when either OMX or Staples was present; but conditional on the presence of one, adding the other did not meaningfully affect ODP margins. The cross-sectional results were also consistent with our panel study results insofar as we found some, although not robust, evidence that ODP margins responded to OMX entry/exit only if Staples was not close by.

Using the predicted percent changes in margins from this analysis, under the assumption of constant marginal cost, the predicted percent changes in price were estimated using the formula:

$$\% \Delta P = \% \Delta M / \frac{1 - \frac{M}{P}}{1 - \frac{M_1}{P_1}}$$

where P denotes price and M_0 and M_1 denote the before-closure and after-closure margins, respectively. For instance, we employed this formula to generate a predicted price difference between ODP stores that did not have any OSS competitors within 30 minutes and ODP stores that had at least one OMX store within 30 minutes.²⁰

We concluded that despite the presence of some ambiguity in our results, they did not support a recommendation to the Commission to challenge the proposed merger. Given the lack of robustness in the results from the panel study analyses, and the aforementioned potential difficulties associated with drawing inferences from cross-sectional analyses, we concluded that our results did not provide a sufficient basis for deciding that the proposed merger was likely to be anticompetitive. We note also the contrast between these results, and the findings from

signals to health care providers: encouraging greater coordination of patient care through the ACA, yet enforcing antitrust laws against firms' efforts to improve care coordination through consolidation. We hope that this discussion demonstrates that there need be no conflict between health care reform and competition law, and that both are necessary to lower health care costs and improve patient care.²⁵

A. Key Factors in the Analysis of Quality Efficiencies

According to the 2010 DOJ-FTC Horizontal Merger Guidelines,²⁶ the agencies will take into account efficiencies if and only if the claimed efficiencies are verifiable, non-speculative, and merger-specific. These criteria are the same whether or not the merger involves health care providers.

In mergers not involving health care providers, the asserted efficiencies usually involve reductions in production costs. In mergers involving health care providers, the parties frequently assert that the merger will improve the quality of patient care. However, evidence of the direction and magnitude of the association between costs and the quality of care is inconsistent.²⁷ In addition, the evidence, both theoretical and empirical, does not find support for the notion that health care mergers, especially hospital mergers, lead to higher quality outcomes.²⁸

In general, a merger will lead to improved quality only if it leads to an increase in the profitability of producing quality. This can occur if the merger increases the revenue received from producing higher quality, or if the merger reduces the costs of producing quality. Only the latter is a valid efficiency argument under the merger guidelines.

Romano and Balan (2011) provide a detailed approach to analyzing efficiency and quality improvement claims of health care providers. They focus on hospital mergers, but the analysis can be applied to other provider combinations. In this section, we identify the two most likely sources of quality improvement, and discuss how to evaluate whether a merger is likely to create these improvements. A merger might improve quality if it extends a provider's clinically superior quality to its merger partner, or if it helps the merged entity attain economies of scale that can lower the costs of producing quality.

²⁵ See, e.g., Gaynor (2014a and 2014b), Feinstein (2014), and Brill (2014).

²⁶ US Department of Justice and Federal Trade Commission (2010).

²⁷ See Hussey, et al. (2013).

²⁸ Gaynor (2007), Vogt and Town (2006), and Gaynor and Town (2012).

A common efficiency justification for health care mergers is that the acquisition will allow a higher-quality acquirer to improve the quality of a poorly performing acquired provider. For this to be a credible efficiency claim, two things must be true: (1) one of the providers must have demonstrated practices or institutions that produce superior quality; and (2) these practices must be easily exported to the other provider to enable that provider to achieve these quality improvements more easily than it could have absent the merger.

The first step in the analysis of these claims is to establish whether one of the providers is actually clinically superior to the other, for if there are no differences in quality pre-merger, improvements are unlikely post-merger.²⁹ Since numerous quality measures are extensively tracked by hospitals, ample empirical evidence can be evaluated to judge the likelihood of differences in provider quality. I -5n(e) -6n1S51-6(i) . -12l -2(de) -6(-6(r) 3(e) 4(nc) -8 e) 6quameleo jent4() -1

B. Application to a Specific Acquisition: St. Luke's Health System

Many of these issues arose in the FTC's recent challenge of a physician group by a health system in Idaho (*Alphonsus Medical Center – Nampa, Inc., et al. v. St. Luke's Health System, Ltd.*, 2014-1 Trade Cas. (CCH) P78,667). St. Luke's proposed merger would have joined the largest health system in the state, already including seven hospitals and more than 400 employed physicians, with Saltzer, the largest multispecialty physician group in the state. The FTC's complaint alleged that this combination would lead to a significant increase in concentration in the market for adult primary care services in Nampa, Idaho, and would provide St. Luke's with power to raise prices for these services.

While it challenged the FTC's definition of the relevant product market and the FTC's claims about the merger's likely competitive effects, St. Luke's key defense was that the merger was necessary to provide integrated care and achieve the "triple aim" of better quality health, lower costs, and better population health.³³ St. Luke's asserted that the merger would improve its quality and reduce its costs by implementing evidence-based medicine through its entire system; by coordinating patient care using a single electronic medical record ("EMR"); and by enabling St. Luke's to enter into full risk-based service contracts with payers. But at its core, St. Luke's argument was that there was only one way to achieve integrated patient care: by employing Saltzer physicians and creating a fully financially and vertically integrated health system.

Notwithstanding St. Luke's assertions, employing physicians is not the only way to change their incentives to provide high-quality integrated patient care. An integrated delivery system (IDS), especially a financiallery

(Professor David Dranove) analyzed this issue. He conducted a differences-in-differences expenditure analysis of previous St. Luke's physician acquisitions, and found little evidence that past mergers had reduced health care spending. In addition, no evidence presented at trial suggested that St. Luke's had superior quality that could be passed on to an integrated Saltzer. Thus, there was little evidence to support a merger-specific efficiency based on quality differences.

St. Luke's also claimed that it would extend its Epic EMR system to Saltzer as a result of the merger. A single centralized EMR can help to coordinate patient care, but St. Luke's claim that its ability to extend to Saltzer its Epic EMR was not an efficiency. Saltzer already had a different EMR, and switching to another EMR would likely yield disruption to work flow during a transition period. In addition, because St. Luke's recognized that including more providers in its system could have improved patient care more widely in Idaho, it was developing an Affiliate EMR program to help independent practices get access to Epic. Saltzer could have taken advantage of that program if it wanted to switch to Epic. The merger would also not increase the speed of the Epic roll-out to all St. Luke's providers, as some of the system hospitals were years away from transitioning.

Even the same EMR might not have been necessary to provide integrated care if there were another source of centralized patient care data. An easily accessible data warehouse or health information exchange can allow providers to share important data -- such as radiology and test results -- without providers' being on the same EMR. The Health Information Technology for Economic and Clinical Health (HITECH) Act has provided the funding for local data exchange initiatives, including support for the Idaho Health Data Exchange (IHDE).

The IHDE's development also weakens the efficiency claim. St. Luke's has been a major sponsor of the IHDE, which is a way to connect providers throughout the state. But the real step to advance information sharing broadly is through greater interoperability of different EMRs, and this will be an important feature of most systems in the next few years.³⁷

An important part of integrated patient care is not just having shared medical records, but having the analytical and decision tools to use the data that are contained in the medical records.

³⁷ The HITECH Act includes an incentive program for providers' meaningful use of electronic health records. Stage 2 meaningful use criteria include interoperability measures. See <http://www.healthit.gov/providers-professionals/how-attain-meaningful-use>.

St. Luke's asserted that Saltzer would have been unable to gain access to its new data analytic tool absent the transaction.

However, the evidence did not support this efficiency. The tool was still in development and not actively utilized by any other health care system, and thus its effectiveness was not demonstrated. If Saltzer had wanted to integrate a data analytics tool into its existing EMR, there were a number of more widely used software packages available. For example, during the trial, the other major hospital in the area (and a private plaintiff), St. Alphonsus, demonstrated Explorys, which is another data analytical tool. It had the additional benefit of being widely used and therefore better suited to population health management, which is necessary to negotiate risk-based contracts.

St. Luke's asserted that it needed to employ the Saltzer doctors to change their incentives from those in traditional fee-for-service medicine. Only by changing these incentives could Saltzer effectively practice the type of value-based medicine to enter full risk-based contracts with payers. However, this claimed efficiency was at odds with St. Luke's current practice and its actual agreement with Saltzer. Under the professional services agreement, Saltzer doctors were to be paid for the volume of services provided. The Saltzer physicians, for the next two years at least, were going to earn more money in accordance with providing more services. The agreement between Saltzer and St. Luke's did not detail any performance-based or risk-based compensation, despite the fact that movement in that direction was what the merger was supposed to facilitate. Furthermore, the evidence supported the notion that risk-based arrangements were in use in Idaho for provider groups of varying sizes.

examine a novel defense with roots in behavioral economics: the “unused gym membership” theory.

A. Case Background

DEI created and disseminated infomercials and direct mail advertisements for their signature product: “Winning in the Cash Flow Business.” The product consisted of a series of training materials that were designed to teach consumers how to locate and broker seller-financed promissory notes (“cash flow notes”), which are privately held mortgages or notes that are often secured by the home or land that is the subject of the loan. DEI advertised that consumers would quickly and easily earn substantial amounts of money through commissions from brokering these cash flow notes.

Approximately 949,000 consumers throughout the U.S. and Canada purchased this initial product, ranging in price from \$40 to \$160, from DEI.³⁸ DEI also offered “up-sells”, such as additional training materials or coaching sessions, which ranged in price from hundreds to thousands of dollars. DEI’s revenues (less refunds and chargebacks) from 2006 to 2011 exceeded \$330 million.³⁹ DEI’s sole substantiation for the validity of the claims made in their advertisements was a list of 296 individuals (out of 949,000 customers) who had self-reported to DEI earning money from brokering notes.

B. FTC Evidence

FTC staff commissioned a survey in order to measure the success rates of DEI customers. DEI’s attorneys articulated a novel defense: the “unused gym membership” defense. The defendants’ attorneys argued that DEI customers may not be achieving their desired level of success due to present-bias or hyperbolic discounting.⁴⁰ That is, for the same reasons that individuals frequently promise (themselves) to start their diets tomorrow or under-utilize gym memberships, consumers may have purchased DEI’s training materials but then not invested the

FTC staff obtained and examined DEI's customer purchase database. To address the defendants' novel defense, we tabulated customer expenditures and stratified the customers into two groups: individuals who spent less than \$500 on DEI products and services (representing 86% of customers), and individuals who spent \$500 or more. We stratified by customer expenditure under the theory that individuals who spent \$500 or more signaled that they were likely to make an effort to locate and broker cash flow notes, and any lack of success would be unlikely to be attributable solely to a lack of effort.⁴¹ We then drew a random sample of 1,500 consumers from each of these two groups for a survey about their experiences and outcomes with DEI.

consumers would quickly and easily earn substantial revenue from brokering cash flow notes were false and unsubstantiated. The case settled in 2013 with an order that banned Dalbey and his wife from telemarketing, from marketing or selling business opportunities, and from producing or distributing infomercials. The settlement also contained a judgment for \$330 million as equitable monetary relief.

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