DIW Weekly Report 33 2021

AT A GLANCE

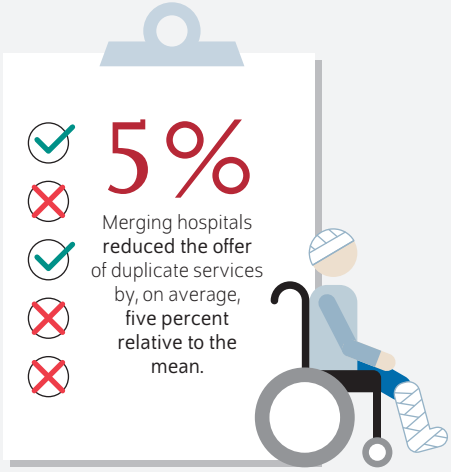
Hospital mergers can impact the offer of health care services

By Daniel Herrera-Araujo and Joanna Piechucka

- Every third hospital in France underwent a merger between 2010 and 2017
- Merged hospitals reduced their offered services significantly by five percent relative to the mean
- Following a merger, they were significantly more likely to offer distinct services, an increase by seven percent relative to the mean
- Insights are also particularly relevant for the German hospital industry, which operates in a similar regulatory context to the French one
- Competition authorities should account for hospitals' strategic reactions in their analysis when deciding ex ante whether or not to approve mergers

Hospital mergers in France have increased, leading to a change in the offer of health care services

Every third private hospital in France underwent a merger from 2010 to 2017.



net closures across 21 groups of surgical activities occurred from 2009 to 2017.

Sources: Fichier National des Etablissements Sanitaires et Sociaux (FINESS) database, ScanSanté, Hospidiag, authors' own desk research.

FROM THE AUTHORS

"Mergers have become a key feature of the health care landscape in France. Many other European countries have witnessed similar trends. As reported by the German competition authority, the Bundeskartellamt, more than 300 mergers were approved from 2003 to 2020."

— Joanna Piechucka —

MEDIA

Audio Interview with Joanna Piechucka (in English)
www.diw.de/mediathek

Hospital mergers can impact the offer of health care services

By Daniel Herrera-Araujo and Joanna Piechucka

ABSTRACT

In the last decades, many European hospital markets witnessed a wave of mergers leading to increased levels of market concentration. The effects of hospital mergers and the effectiveness of competition enforcement have been discussed by politicians but understudied by academics. This report studies how hospital mergers impact hospital service provision by focusing on the French hospital industry from 2009 to 2017. The report finds that local mergers may result in a change in the health care services offered. For example, merging hospitals reduce the offer of duplicate services. The results suggest that competition authorities may want to encompass these strategic reactions in their analysis when deciding ex ante whether or not to approve mergers. These insights are also particularly relevant for the German hospital industry, which operates in a similar regulatory context to the French case.

The ongoing COVID-19 crisis has shown how essential a well-functioning health care system is, ensuring both access to and high quality of health care services. However, health care has its cost: In 2019, it accounted for approximately 12 percent of gross domestic product (GDP) in Germany.[1] Hospital expenditures represent 28 percent of this spending, making hospitals one of the largest industries in the German economy.[2] The functioning of the hospital industry tremendously affects the well-being of the economy, and more importantly, the welfare of the population.

In the last decades, the hospital industry, both in the United States of America (USA) and Europe, has experienced a great deal of mergers, leading to increased market concentration.[3]

Mergers, which meet certain turnover, transaction value, and activity thresholds, are scrutinized by either the European Commission or national competition authorities, such as the *Bundeskartellamt* in Germany or the *Autorité de la concurrence* in France. It is their responsibility to approve such mergers by weighing their potential pro- and anti-competitive effects. On the one hand, a hospital merger may allow firms to combine resources to achieve efficiencies. On the other hand, a merger reduces market competition and thereby may potentially lead to increased prices or lower quality.[4]

The competition authorities decide on mergers *ex ante* and base their decision on existing economic studies. These studies generally assume that following the merger, hospitals are offering exactly the same health services as before. This is a critical point, because if the offering is in fact affected, this may change the expected effects of mergers on patients' well-being.

1 OECD, *Health and expenditure financing 2021* (2021) (available online, accessed July 20, 2021; this applies to all other online sources in this report unless stated otherwise).

2 OECD, *Health and expenditure financing 2021* (2021) (available online).

3 Marting Gaynor, "Antitrust Applied: Hospital Consolidation Concerns and Solutions. Statement before the Committee on the Judiciary Subcommittee on Competition Policy, Antitrust, and Consumer Rights," Statement before the U.S. Senate (2021) (available online); Brent D. Fulton, "Health care market concentration trends in the United States: Evidence and policy responses," *Health Affairs* 36, no. 9 (2017): 1530–1538 (available online); Martin Gaynor et al., "The industrial organization of health-care markets," *Journal of Economic Literature* 53, no. 2 (2015): 235–84. (available online).

4 The strategic variables used by hospitals depend on the regulatory framework they operate in. Prices may be set by regulators in certain countries, while not in others.

DOI: https://doi.org/10.18723/diw_dwr:2021-33-1

In order to help competition authorities make better decisions in the future, retrospective studies on the actual effects of mergers are needed. Should these mergers have been allowed in the first place? Were these mergers beneficial or harmful to patients? This assessment is particularly important in the hospital sector, as patients' health and life are at stake.

A growing empirical literature shows that ignoring potential changes in product offerings may lead to a bias in estimating the effects of mergers.[5] However, these studies solely focus on industries in which firms compete mainly in prices, such as supermarkets.[6] To draw conclusions from them for the health care sector is, therefore, only possible to a limited extent, as health care prices are set administratively by regulators and are not determined by the market in many European countries. In this case, competition between firms will occur over non-price dimensions, such as quality. This is true for the hospital industry in France and Germany, for example. In this type of industry, it is particularly important to consider how mergers might impact the strategic offering of health care services.

While the horizontal merger guidelines of the European Union (EU) point out that firms possibly change the products and/or services they offer following a merger,[7] this has gained little attention in current merger decisions. Meanwhile, health practitioners often emphasize that mergers between hospitals do in fact lead to a re-organization of services.

This report uses the example of mergers between private hospitals in France to shed light on the impact of mergers on hospitals' repositioning strategies. The analysis provides insights on how mergers may result in a change in the relative offer of health care services of hospitals competing for the same patients. It thereby suggests that competition authorities should encompass these strategic reactions in their analysis when deciding *ex ante* whether or not to approve mergers.

These insights are also particularly relevant for the German hospital industry, which operates in a similar market and regulatory context to the French one. This includes extensive hospital patient choice; hospital competition mainly in terms of quality, not prices; and an extensive involvement of private providers.[8] Most importantly, Germany has also witnessed a large wave of mergers in the industry. As reported by the *Bundeskartellamt*,[9] in spite of the growing concentration in the hospital sector, only seven of the 325 transactions notified from 2003 to July 2020 were prohibited. Lessons learned from the French case can serve as a starting point for retrospective studies of mergers in the German hospital industry. This in turn, can help make better policies for the future.

Mergers in the French hospital industry have impacted the offer of health care services. A recent wave of mergers combined with its regulatory context make the French hospital industry an ideal field to study what kind of impact mergers have on "repositioning", or strategic changes in the offer of health care services. This study uses an original database focusing on privately-owned acute care hospitals in France and their activity in surgery for the years 2009 to 2017 (Box 1).

Current regulations incentivize hospitals to compete

The French hospital system is operated by private and public actors, each with a significant share of patients. The private sector is well developed in France and particularly present in surgical services, accounting for about 40 percent of all health facilities and 60 percent of all hospital admissions.[10]

Three key features of the French regulatory environment incentivize health establishments to compete over quality and motivate the use of repositioning as a strategy hospitals may engage in. First, patients can freely choose where to receive treatment. Given the generous baseline and supplementary insurance, out-of-pocket expenses (three percent of total hospital expenditures)[11] are not the primary factor shaping patients' choice.

Second, most of hospitals' funding comes from the activities they perform. Acute care services of both public and private hospitals are solely financed this way. This encourages hospitals to compete for patients: additional patients represent additional revenue for the facility.

Third, regional health agencies authorize the provision of a broadly defined activity covering a large number of services. In the case of a merger, all the authorizations owned by both merging parties are shared. Moreover, merging private for-profit hospitals can easily decide to close a service. This is because, as opposed to offering a new service, the regional health agency does not need to authorize the closure of a service.

5 Elena Argentesi et al., "Price or Variety? An Evaluation of Mergers Effects in Grocery Retailing," *DIW Discussion Paper* no. 1734 (2018) (available online); Thomas Wollmann , "Trucks without Bailouts: Equilibrium Product Characteristics for Commercial Vehicles," *American Economic Review* 108, no. 6 (2018): 1364–406 (available online); Ying Fan, "Ownership consolidation and product characteristics: A study of the US daily newspaper," *American Economic Review* 103, no. 5 (2013): 1598–1628 (available online); Sophia Li et al., "Repositioning and market power after airline mergers," (2019) (available online).

6 When focusing on an industry engaged in price competition, several explanations can explain changes in product positioning following a merger. On the one hand, merging firms may want to differentiate themselves by avoiding duplicate products and cannibalizing their products. On the other hand, if a merger leads to price increases, this may attract competitors to start offering new products. This second effect may mitigate the negative effect of a merger in the form of an increase in prices. In this regard, the resulting question when evaluating the merger is whether the changes in product variety offset the negative price effects.

7 Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, in Official Journal of the European Union, "Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings," 2004/C 31/03 (2004): 31/8 (available online).

8 Luigi Sicilian et al., "Policies towards hospital and GP competition in five European countries," *Health Policy* 121 (2017): 103–110 (available online).

9 Bundeskartellamt, *Health sector* (available online).

10 Philippe Choné, "Competition policy for health care provision in France," *Health Policy* 121, no. 2 (2017): 111–118 (available online).

11 Mutualité Française, "213 € : montant moyen des dépenses de santé restant à la charge des ménages en 2019," April 5, 2021 (available online; in French).

Box 1

Unique database of the French hospital industry for 2009 to 2017

To consistently estimate the effect of mergers on service repositioning, information on merging and non-merging entities is required. In particular, when a merger occurs must be identified as well as the services offered by each hospital. A unique and original dataset on surgical services offered by privately-owned acute care hospitals in the French hospital industry covering the period 2009 to 2017 is constructed. Here, a number of data sources is combined:

Hospital registry. We use data from the *Fichier National des Etablissements Sanitaires et Sociaux* (FINESS) database,[1] which is a national directory of health and social establishments maintained by the Regional Department of Health and Social Affairs (*Direction régionale des affaires sanitaires et sociales*) and the Departmental Directorate for Health and Social Affairs (*Direction Départementale des Affaires Sanitaires et Sociales*). All health establishments are identified by a geographical and legal FINESS number. Each FINESS identifier is paired with data on the hospital's name, geographic location, legal status, field of activity, date of opening and closure (if any).

Hospital activity. The main source of information is ScanSanté data,[2] which is a publicly available dataset providing an exhaustive, nationwide, database on hospital activity. ScanSanté is based on a DRG classification of activities, covering all public and private hospitals. It provides data on all claims paid by the social security system to hospitals and is therefore the main source of information on hospital activity.

Local markets and competitors. Hospidiag National Agency to Support the Performance of Health and Medico-Social Establishments (ANAP)[3] provides information on the identity of competing establishments by defining local markets. For each hospital, all postal codes from which patients originate are identified and ordered by highest hospitalization rates (no. of medical stays/no. of inhabitants). Taking the sum of activity, postal codes accounting for 80 percent of a given establishment's activity are considered to be the area of activity. Health establishments located in this region are then considered to be local competitors.

Mergers and acquisitions. Information on mergers and acquisitions occurring in the industry is retrieved by means of desk research, such as press releases, financial statements of companies, specialized websites, etc. Mergers and acquisitions can result from mergers and acquisitions of either individual clinics or of groups of clinics.

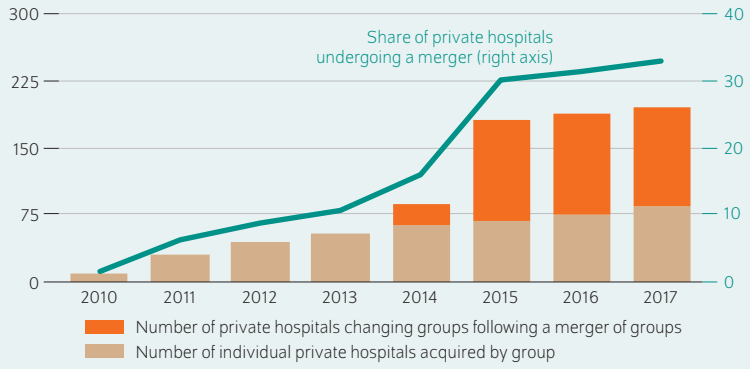
1 See the homepage of FINESS (in French; available online).

2 See the homepage of ScanSanté (in French; available online).

3 See the homepage of the *Agence technique de l'information sur l'hospitalisation* (in French; available online).

Figure 1

Private hospitals[1] in France undergoing mergers
Overall number (left scale) and share of private hospitals in percent (right scale)



1 Acute care hospitals offering surgery.

Source: Authors' own analysis based on the *Fichier National des Etablissements Sanitaires et Sociaux* (FINESS) database and desk research.

From 2010 to 2017, a third of private hospitals in France underwent at least one merger or change in owner.

Overall, the characteristics of the French hospital industry are such that hospitals have incentives to compete in quality with the aim of attracting patients and increasing their profits. Therefore, reorganizing services may actually be a viable outcome of mergers as a means for hospitals to optimize profits.

Hospital mergers increased in the last decade

When looking at private for-profit hospitals in the period 2010 to 2017,[12] a great number of establishments undergoing a merger can be observed. Two dynamics are the source of this change: First, the number of individual private hospitals being bought out by groups has steadily increased from eight in 2010 to as much as 84 in 2017. Second, private hospitals already belonging to groups are changing owners because of mergers between groups.[13] From 2010 to 2017,

12 The focus on private for-profit hospitals in this study is motivated by the fact that public hospitals are not as free in determining the offer of their health care services. As opposed to private-for-profit hospitals, public hospitals face public service obligations. Any closures of services by public hospitals are also highly problematic.

13 Throughout the period of analysis, a number of mergers approved under the scrutiny of the French Competition Authority was identified: *Décision n° 14-DCC-79 du 11 juin 2014 relative à la prise de contrôle exclusif du groupe Médi-Partenaires par le groupe Bridgepoint; Décision n° 14-DCC-141 du 24 septembre 2014 relative à la prise de contrôle conjoint de Générale de Santé par Ramsay Health Care et Predica (Groupe Crédit Agricole); Décision n° 15-DCC-155 du*

approximately a third of private hospitals underwent at least one such change (Figure 1). Hospital mergers became a key feature of the health-care landscape.

Most surgical services are offered by fewer private hospitals

Unlike public hospitals, private ones are relatively free to end and, to some extent, begin offering services and do not face public obligations regarding their provision of health care services. The industry witnessed a great deal of organizational changes during the last decade (Figure 2). In the 21 groups of activities provided in surgery (*groupes de planification*), more than 800 were closed from 2009 to 2017. These were not compensated by the less than 400 openings taking place in this same period.

Merging hospitals reduced the offer of duplicate health services

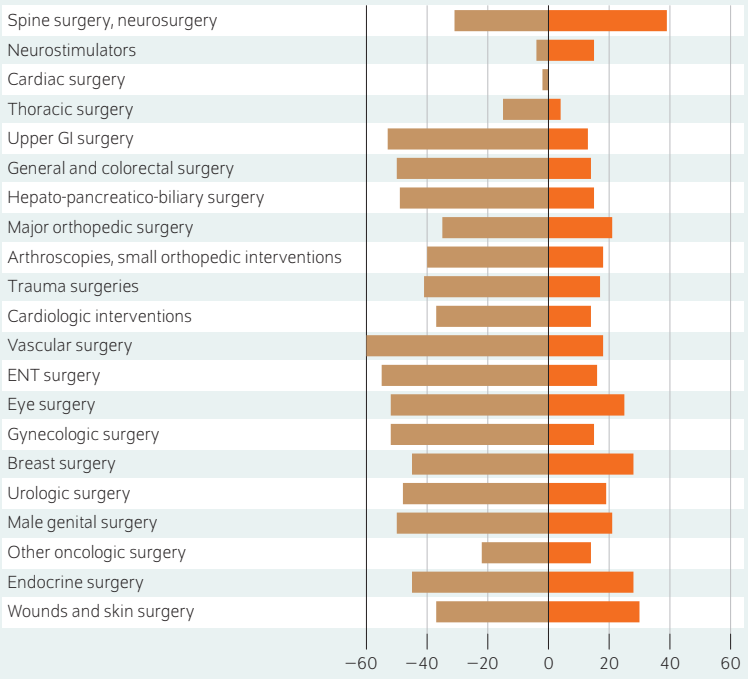
As shown, the hospital industry in France consolidated and, at the same time, the number of groups of health care activities in surgery has decreased. This raises the question whether there may be a causal link between the two. Will two separately owned hospitals decide to change their service offering, relative to each other and relative to competitors, after they merge? The study considers pairs of private hospitals located in the same local market, thus competing for the same patients (see Box 1 for a formal definition of local markets). It focuses on the ownership changes at the local level resulting from mergers of major groups of clinics.

An example: for each focal hospital, a catchment area is established. This is interpreted as the distance that most patients would be willing to travel to reach the focal hospital (Figure 3). Any hospitals within the local markets are considered to place a competitive constraint on the focal hospital. However, this constraint may vary depending on whether two hospitals have the same owner or not. In a pre-merger situation, four hospitals (H1, H2, H3, and H4) compete against each other and each hospital belongs to a separate group. Once a merger between the two groups occurs, making H1 and H4 belong to the same group, competition in this local market decreases. Following the merger, will H1 and H4 change the offer of health care services? How will H1 position itself with respect to its competitors H2 and H3?

Overall, 182 markets exposed to a local merger are identified, which constitute the focus of this analysis. A private hospital faces on average nine other private hospitals within its local market (Table 1). Hospitals located within the same local market provide a choice of 20 distinct surgical groups of activities on average. Furthermore, a service is offered by, on average, six hospitals in the local market.

Figure 2

Closures and openings of the 21 groups of activities offered in surgery by private hospitals[1] in France, 2009–2017



1 Privately-owned acute care hospitals

Source: Authors' own analysis based on the *Fichier National des Etablissements Sanitaires et Sociaux* (FINESS) database and desk research.

From 2009 to 2017, there were 439 net closures across 21 surgical groups of activities

Table 1

Statistics on the 182 local markets exposed to a local merger across markets/pairs of hospitals and years of analysis, 2009–2017

	Mean	Minimum	Maximum
Local markets exposed to a focal hospital merger			
Number of private hospitals	9	1	18
Number of distinct services offered in local market	20	9	21
Number of distinct hospitals offering a service in local market	6	0	13
Pairs of hospitals in local market exposed to a focal hospital merger			
Both hospitals offer a given service (in percent)	46	0	100
Only one hospital offers a given service (in percent)	32	0	100
No hospital offers a given service (in percent)	22	0	100

Source: Authors' own analysis based on the *Fichier National des Etablissements Sanitaires et Sociaux* (FINESS) database and desk research.

Three measures of differentiation at the service level will be considered across all years, hospitals, and surgical groups of activities within a local market (also see Box 2): (1) Both hospitals in a pair offer a given service at a given year. (2) Only one does. (3) Neither does.

30 novembre 2015 relative à la prise de contrôle exclusif d'Hôpital Privé Métropole par Compagnie Générale de Santé; Décision n° 15-DCC-146 du 26 octobre 2015 relative à la prise de contrôle exclusif de Vitalia par Vedici Holding (CVC Capital Partners); Décision n° 17-DCC-95 du 23 juin 2017 relative à la prise de contrôle exclusif du groupe MédiPôle Partenaires par le groupe Elsan.

Box 2

Econometric model

An econometric approach is introduced to study the impact of a change in ownership from separate to common ownership on the differentiation of health services offered by pairs of privately-owned hospitals. Three simple measures of differentiation d_{h1h2gt} between hospital h_1 and hospital h_2 of service g at time t are considered:

- d^{11}_{h1h2gt} ("Both hospitals offer a service" in Table 2): takes the value 1 if both hospital h_1 and hospital h_2 offer service g at time t and 0 otherwise;
- d^{1}_{h1h2gt} ("One of two hospitals offers a service" in Table 2): takes the value 1 if only if one hospital h_1 or hospital h_2 offer service g at time t and 0 otherwise;
- d^{00}_{h1h2gt} ("Neither offers a service" in Table 2): takes the value 1 if neither hospital h_1 nor hospital h_2 offer service g at time t and 0 otherwise.

The focus is on markets that were exposed to a local merger and all pairwise combinations between hospitals in a given local market and for a given health care service provided are compared:

$$d_{h1h2gt} = X1_{h1h2gt}\beta_1 + X2_{h1h2gt}\beta_2 + \delta_t + \eta_{h1h2g} + \varepsilon_{h1h2gt}$$

where

- $X1_{h1h2gt}$ is a dummy variable taking the value '1' when focal hospital h_1 and hospital h_2 have the same owner in year t;
- $X2_{h1h2gt}$ is a dummy variable taking the value '1' when focal hospital h_1 was exposed to a merger and hospital h_2 was its competitor in year t;
- Year fixed effects, δ_t are included; this makes it possible to account for any possible trends in differentiation observed in the industry, occurring independently of mergers;

Hospital-pair-service fixed effects η_{h1h2g} are included, which account for fixed (constant over time) differences between hospital-pair services.

Two coefficients of interest have the following interpretation:

- β_1 ("between merging hospitals" in Table 2): the average increase in our differentiation measure associated with a change from separate to common ownership of hospital pair;
- β_2 ("with respect to a competitor" in Table 2): the average increase in the differentiation measure between the focal hospital exposed to a merger and its competitors.

Table 2

Effect of hospital mergers on health services offered
In percent

	Both hospitals offer a service	One of two hospitals offers a service	Neither offers a service
Between merging hospitals	–2.5***	2.3***	0.23
With respect to a competitor	–1.6*	1.3**	3.0
Observations	350,190	350,190	350,190

Note: The table presents the coefficients obtained from the regression multiplied by 100 for ease of interpretation. All regressions include hospital-pair-groups of activity fixed effects and time fixed effects. The former controls for pair-specific differences for a particular service, while the latter control for yearly trends. The coefficients are identified from within hospital-pair-group of activity variation, i.e., the correlation between a pair's service offering and changes in ownership over time. The asterisks following the values denote the significance level, which indicates the statistical accuracy of the estimation. The more asterisks, the lower the probability of error: ***, **, and * indicate significance at the one, five, and ten percent levels, respectively.

Sources: *Fichier National des Etablissements Sanitaires et Sociaux* (FINESS) database, ScanSanté, Hospidiag, and authors' desk research.

Pairs of hospitals offering the same service account for 46 percent of all observations. Approximately a third (32 percent) of all pairs of hospitals have one that provides a service while the other does not. Finally, in 22 percent of the observations, a service is provided by neither hospital.

The econometric model examines, for a pair of hospitals, how the change from separate to common ownership impacts their service differentiation measure (see Box 2).

The findings suggest that following a merger, hospitals reduce the offer of services they both provide significantly, by 2.5 percentage points or five percent relative to the mean (Table 2). Simultaneously, they are significantly more likely to offer distinct services (an increase by 2.3 percentage points or seven percent relative to the mean), while the change in the probability of neither hospital offering the service appears insignificant and close to zero. Similar patterns arise when looking at how a merging hospital positions itself with respect to a competitor.

Overall, these reactions can be interpreted as a strategic repositioning effect. Merging hospitals adjust their offer of health care services by eliminating duplicate services. Whether this is good or bad for patients will depend on which main effect of such strategies prevails. On the one hand, these strategies may be introduced to avoid a cannibalization of services and result in the softening of competition. This is expected to decrease quality by reducing the competition. On the other hand, reorganizing services may lead to efficiencies by allowing firms to combine resources to achieve efficient size. Greater experience gained though performing a greater number of surgeries may also increase quality of the services provided. While the results cannot assess which effect prevails, they highlight that hospital mergers cannot be analyzed without accounting for their strategic changes in the offer of services.

Conclusions: Competition authorities should account for hospitals' reactions to a merger

Using the French hospital industry as an example, this report shows that merged hospitals reduce their duplicate health care services. They also position themselves strategically with respect to their competitors. In assessing a merger *ex ante* in light of its potential pro- and anti-competitive effects, competition authorities should account for the possibility that merging hospitals may change their offer of services as a result of the change of the competitive landscape.

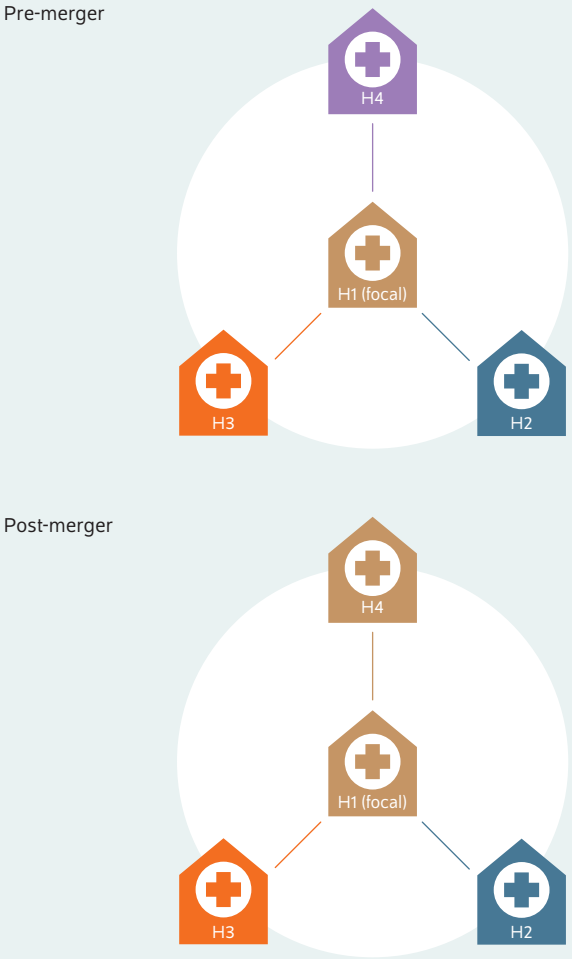
While the study provides insights on how hospitals engage in reorganizational strategies following a merger, several open questions remain. From a welfare point of view, do mergers result in too few hospital services being offered? Are patients better or worse off? Is competition enforcement towards hospital mergers too lax or rather too stringent?

The answer to these questions will depend on the main effect that prevails. Simply put: Do mergers reduce quality of services through the reduction in competition? Or do they allow hospitals to specialize and thereby potentially increase the quality of services? The latter argument was actually put forward by the merging parties of the merger between St. Franziskus-Hospital operated by the Malteser group and the somatic division of Diakonissenkrankenhaus in Flensburg. In particular, they claimed that a higher number of patients treated within one hospital would lead to higher quality due to greater experience or routine. In its decision, the *Bundeskartellamt* discussed the potential efficiencies of the merger and ultimately concluded that these efficiencies were not verifiable from the available data. Eventually the merger was cleared by the *Bundeskartellamt* in 2020.[14]

This example clearly shows that more retrospective studies are needed to guide policymakers and improve their decisions. This requires a number of actors to cooperate: competition authorities interested in retrospective studies of the mergers they have approved; national health regulators collecting and putting detailed data at disposal, making it possible to assess outcomes for a broad range of health care services; and researchers with a toolkit of state of the art econometric techniques. Such initiatives are key in one of the most important sectors of our economy, the hospital industry, where well-being and lives are at stake.

Figure 3

Example of a local merger



Note: Each color represents a different hospital group.

Source: Authors' own illustration.

A merger between two groups reduces competition in local markets.

14 Bundeskartellamt, *Fusionskontrollverfahren* (in German; available online).

Daniel Herrera-Araujo is an assistant professor at Université Paris-Dauphine | daniel.herrera@dauphine.psl.eu

Joanna Piechucka is research associate in the Firms and Market Department at DIW Berlin | jpiechucka@diw.de

JEL: C23, I11, L40

Keywords: mergers, industry concentration, hospital industry

LEGAL AND EDITORIAL DETAILS

DIW Berlin — Deutsches Institut für Wirtschaftsforschung e. V.
Mohrenstraße 58, 10117 Berlin
www.diw.de
Phone: +49 30 897 89–0 Fax: –200
Volume 11 August 18, 2021

Publishers
Prof. Dr. Tomaso Duso; Prof. Marcel Fratzscher, Ph.D.; Prof. Dr. Peter Haan; Prof. Dr. Claudia Kemfert; Prof. Dr. Alexander S. Kritikos; Prof. Dr. Alexander Kriwoluzky; Prof. Dr. Stefan Liebig; Prof. Dr. Lukas Menkhoff; Prof. Karsten Neuhoff, Ph.D.; Prof. Dr. Carsten Schröder; Prof. Dr. C. Katharina Spiess; Prof. Dr. Katharina Wrohlich

Editors-in-chief
Sabine Fiedler; Dr. Anna Hammerschmid (Acting editor-in-chief)

Reviewer
Olga Chiappinelli

Editorial staff
Prof. Dr. Pio Baake; Marten Brehmer; Rebecca Buhner; Claudia Cohnen-Beck; Dr. Hella Engerer; Petra Jasper; Sebastian Kollmann; Sandra Tubik; Kristina van Deuverden

Sale and distribution
DIW Berlin Leserservice, Postfach 74, 77649 Offenburg
leserservice@diw.de
Phone: +49 1806 14 00 50 25 (20 cents per phone call)

Layout
Roman Wilhelm, Stefanie Reeg, DIW Berlin

Cover design
© imageBROKER / Steffen Diemer

Composition
Satz-Rechen-Zentrum Hartmann + Heenemann GmbH & Co. KG, Berlin

ISSN 2568-7697

Subscribe to our DIW and/or Weekly Report Newsletter at
www.diw.de/newsletter_en