Strategic announcements of nonreportable mergers

By Thomas G. Wollmann[*]

Effective competition policy requires antitrust authorities to evaluate mergers in their incipiency, but most are exempt from premerger notification requirements. As a result, many anticompetitive deals escape government detection and effectively avoid antitrust scrutiny, giving rise to "stealth consolidation" (Wollmann, 2019, 2021).[1] In response to these findings, changes have been proposed to state, federal, and supranational competition policy (see the appendix for a summary).

Premerger notification exemptions also affect disclosure incentives (Barrios and Wollmann, 2022). Since antitrust authorities are typically free to challenge any deal and can learn about them many ways, many antitrust law practices caution clients that public announcements can alert authorities to "competitively sensitive" mergers that might otherwise escape detection (see, e.g., (Mason and Kam, 2013)). Thus, parties to an exempt merger may strategically withhold the terms of the deal such as its value.

Yet, existing economy-wide analysis of stealth consolidation—and of merger activity more generally—ignores transactions with unpublicized values,[2] even though they account for the majority of deals. If these cases arise because some mergers are too insignificant to warrant detailed announcements, then the aforementioned omissions are immaterial, but if they represent strategic decisions, then researchers may be mischaracterizing as well as mismeasuring merger activity.

I employ novel data and recently proposed methods to study these issues in the context of US mergers completed between 1994 and 2011. I find that unpublicized values reflect strategic decisions and that stealth consolidation has been severely undermeasured.

I. Setting

Congress provided bicameral, bipartisan support to the Hart-Scott-Rodino (HSR) Antitrust Improvements Act, which establishes the US premerger notification program. The act requires firms interested in merging to notify federal antitrust agencies in advance and wait 10 to 30 days before closing. Importantly, it does not affect legality, only reportability.

As originally written, the act exempted transactions valued at less than $10-15 million.[3] However, an amendment sharply raised the threshold in 2001 and slated it to grow with gross national product starting in 2005. As of 2022, the threshold stands at $101 million.[4]

II. Data and definitions

The sample consists of completed deals in Refinitiv's M&A database—by far the most comprehensive source for these records. To facilitate comparisons with prior work, I restrict attention to deals involving US targets that were announced between 1994

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[1] I use "merger," "deal," and "transaction" interchangeably to mean any change in control.

[2] For the former, see Wollmann (2019), Kepler, Naiker and Stewart (2020), and Morzenti (2020). Cunningham, Ederer and Ma (2021) study a single industry but compare transaction values to thresholds, so they impose the restriction. For prominent examples of the latter, see Figure 1 of both Holmstrom and Kaplan (2001) and Shleifer and Vishny (2003).

[3] To be more precise, it exempted transactions where the smaller party held less than $10 million in assets *and* the transaction value was less than $15 million. To the extent that firms, on average, trade near book value, the first criteria translate to an effective size-of-transaction value threshold of $10 million. Other exemptions exists.

[4] Higher thresholds may apply; see Section III.D.

and 2011. I also eliminate a small number of industries that never or always require premerger notification (e.g., hotels without casinos and banks, respectively). Over 123,000 mergers meet the criteria.

I define a merger's value as "unpublicized" if Refinitiv does not report the consideration paid to the seller. This occurs in 59.7% of mergers and corresponds mainly to transactions in which "Terms of the deal were not disclosed."[5] For remaining ones, the mean (median) value is $548 million ($48 million) in 2022 US dollars. I define a merger in which the target and acquirer occupy the same primary SIC code as "horizontal." They comprise 32.6% of the sample.

III. Findings

A. Undeterred mergers

Wollmann (2019) studies the effect of the 2001 amendment, which abruptly reduced notifications by 70%. It compares never-exempt mergers, which were large enough to require notification throughout the sample, with newly exempt mergers, which only require notification before 2001. Additionally, it compares horizontal and non-horizontal mergers, the former of which are more likely to harm competition.

The paper finds that premerger notification exemptions not only severely compromise enforcement (e.g., investigations fall by 90%) but also reduce deterrence, which is orders-of-magnitude more important. Conceptually, if direct competitors know their proposed merger will be scrutinized (and ultimately blocked), then they will not attempt it in the first place. In turn, the government never needs to expend resources litigating or even evaluating it, which are first-order concerns for resource-constrained agencies (see Rose (2022)).

With an inability to characterize mergers with unpublicized transaction values as never- or newly exempt, Wollmann (2019) ignores 60% of my sample. If nondisclosure is strategic, then this should group

should also exhibit deterrence, i.e., horizontal mergers should increase relative to non-horizontal ones following the amendment. To test this hypothesis, I narrow the sample to the 73,685 transactions for which Refinitiv does not report a transaction value, and I compare horizontal and non-horizontal mergers over time.

Figure 1 reports the result. Horizontal and non-horizontal mergers track very close with one another prior to the amendment, rising and falling with the business cycle, but diverge sharply after thresholds were increased. This is precisely the pattern one sees in newly exempt mergers, and it is unequivocally absent from never-exempt mergers (see Figure A1 in the appendix). In fact, the relative increase in horizontal mergers in Figure 1 is 5-10 percentage points larger than the increase among newly exempt mergers (i.e., ones with publicized transaction values falling below the threshold).

B. Incidence across industries

For a sense of what industries are affected, Table III.B lists those with an especially high share or number of horizontal mergers with unpublicized values. Most striking is the close resemblance to Table 1 in Wollmann (2019), which presents an analogous table for horizontal, newly exempt mergers. "Local" services such as hospitals, dialysis, pest control, auto dealers, and refuse are over-represented, which is noteworthy because these are precisely the types of industries in which small mergers can yield significant market power. Consistent with that logic, highly segmented manufacturing industries also make the list, including software and pharmaceuticals.

C. Undisclosed terms

Premerger notification exemptions may also reduce the amount of information that merging parties release. Conceptually, for a reportable merger, publicizing its terms does not increase antitrust scrutiny, as the authorities are already fully apprised of the transaction, but for an exempt merger, doing so risks discovery. If nondisclosure is

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[5]See Refinitiv's *DealSynopsis* variable.

strategic, then mergers with unpublicized values should increase relative to mergers with publicized deal values following the amendment. To test this hypothesis, I compare these groups over time.

Figure 2 reports the result. The groups track closely prior to the amendment but diverge completely after 2001. By the end of the sample period, mergers with unpublicized values increase nearly 50% relative to ones with publicized values to the former. In fact, by the mid-2000s, the gap grows so wide that it dramatically changes how one perceives the post-amendment merger wave (see also Figure A2 in the appendix).

D.   (Mis)measured stealth consolidation

Preceding results suggest that in opposition to the implicit, commonly employed assumption that unpublicized values occur when the terms of insignificant transactions are deemed too unimportant to publicize, nondisclosure represents, at least in part, a strategic decision to reduce antitrust risk. In many ways, mergers with unpublicized transaction values resemble mergers that were "newly exempt" as a result of the 2001 HSR Act amendment.

To further support this claim, I employ a recently developed technique that infers the transaction value of mergers for which there is no public transaction-specific information (Barrios and Wollmann, 2022). It exploits an idiosyncratic feature of US accounting standards, which require publicly traded US acquirers to report the total money spent on acquisitions each year in their annual report. I obtain the relevant information from income and cash flow statements, which are compiled by Compustat. The technique yields accurate estimates but is limited to a subset of mergers completed between 2002 and 2016 (see the appendix for details).

I narrow the sample to mergers with unpublicized values and plot the distribution of inferred transactions that can be obtained by this method. Figure 3 reports the result. Most values fall between about $10 million and $100 million. In other words, the majority of these deals would have required notification under the HSR Act as originally written but are exempt under the amended thresholds. It is worthwhile to note that while a nontrivial number of values fall between about $100 million and $400 million, these deals, too, may be exempt under the amended thresholds. For mergers involving targets whose assets mainly include uncapitalized items—typically intellectual property such as patents, trademarks, and trade secrets—the transaction value must meet or exceed $404 to require notification (in 2022 constant US dollars).

Finally, I estimate the amount of output affected by horizontal exempt mergers completed between the HSR Act amendment and the end of the sample. To estimate this figure for mergers with unpublicized values, I apply the empirical distribution reported in Figure 3 to all mergers with unpublicized values and remove any whose implied values exceed the $101 million size-of-transaction test threshold. The resulting figure is $385 billion. The comparable figure for mergers with *disclosed transaction values* is $273 million, meaning the total amount of gross consolidation exceeds $658 million. That is, existing estimates undermeasured stealth consolidation by more than half.

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TABLE 1—INCIDENCE BY INDUSTRY

Industry	Prop.	Industry	Count
Panel A. Sorted by proportion		*Panel B. Sorted by count*	
Manufactured Ice	89.1%	Prepackaged Software	2529
Disinfecting And Pest Control Devices	82.5%	Information Retrieval Services	1321
Title Insurance	82.2%	Insurance Agents, Brokers, And Service	746
Dental Laboratories	81.0%	Business Services, NEC	403
Kidney Dialysis Centers	80.7%	Refuse Systems	377
Legal Services	79.3%	General Medical And Surgical Hospitals	367
Water Supply	77.8%	Management Consulting Services	283
Veterinary Services For Animal Specialties	72.7%	Pharmaceutical Preparations	241
Motor Vehicle Dealers (New And Used)	72.3%	Business Consulting Services, NEC	240
Funeral Service And Crematories	70.3%	Computer Facilities Management Services	232

Note: This table reports 10 industries with the most horizontal mergers with unpublicized values in the post-amendment period. Panel A sorts the industries by the proportion of all mergers that are horizontal and exempt, and it reports those proportions in its second column. Panel B sorts instead by the number of horizontal exempt mergers, and it reports those figures in its second column. "NEC" stands for "not elsewhere classified."
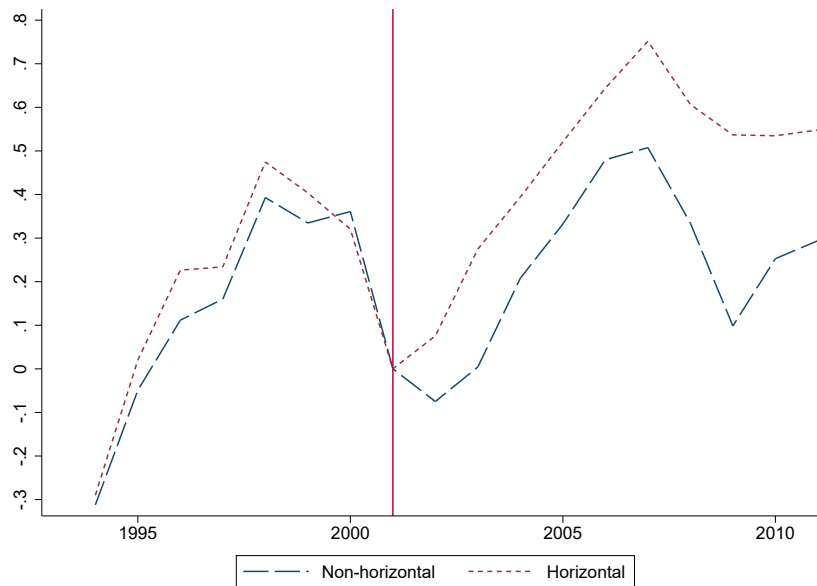

FIGURE 1. HORIZONTAL MERGERS WITH UNDISCLOSED TERMS INCREASE FOLLOWING THE AMENDMENT

Note: This graph plots the log of the number of horizontal and non-horizontal mergers over time. The underlying sample consists of deals with unpublicized values. A vertical line marks 2001, the year the HSR Act was amended to raise the size-of-transactions threshold. To facilitate comparisons, both series are normalized to zero in that year (i.e., the lines that connect the plotted points intersect y = 0 in 2001).
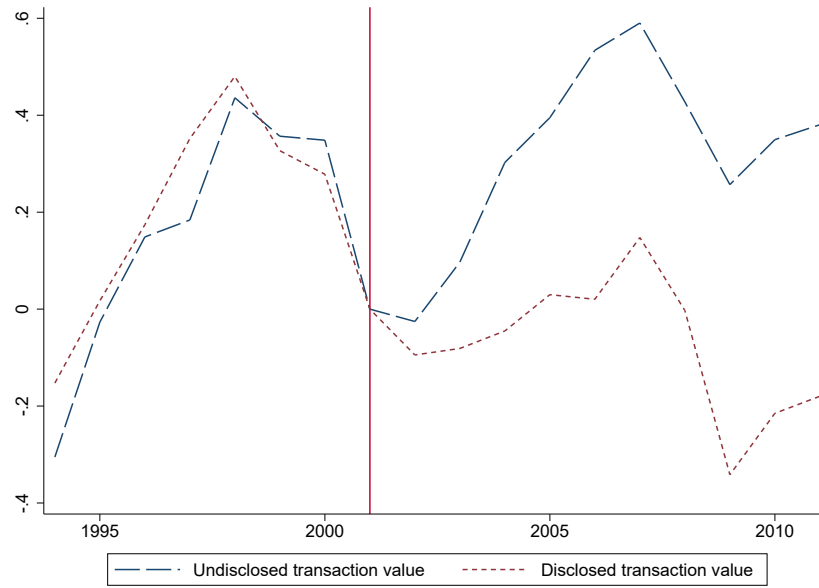
FIGURE 2. MERGERS WITH UNDISCLOSED TERMS INCREASE FOLLOWING THE AMENDMENT

Note: This graph plots the log of the number of mergers with publicized and unpublicized values over time. The underlying sample consists of all transactions. A vertical line marks 2001, the year the HSR Act was amended to raise the size-of-transactions threshold. To facilitate comparisons, both series are normalized to zero in that year (i.e., the lines that connect the plotted points intersect y = 0 in 2001).
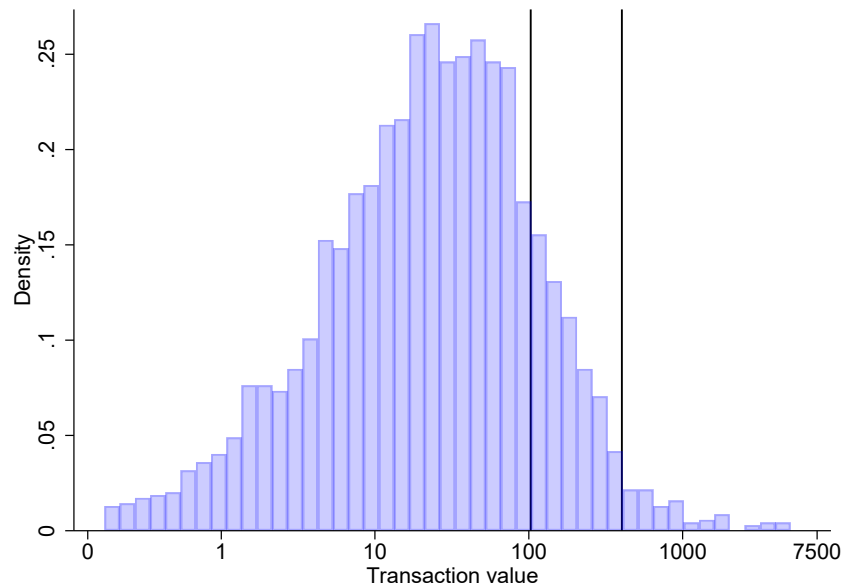

FIGURE 3. DISTRIBUTION OF INFERRED TRANSACTION VALUES

Note: This graph plots the distribution of inferred transaction values measured in 2022 constant US dollars. The underlying sample consists of deals with undisclosed transaction values. A vertical line marks $101 million, the threshold below which these mergers are exempt from the US premerger notification program. For reference, an additional line marks $404 million; for targets whose assets are limited to uncapitalized intellectual property (e.g., patents), this higher threshold may apply. Note that the x-axis is log scaled to improve legibility.

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APPENDIX

A1. Policy developments

Since the problem has been identified, various policy changes have been proposed to address the lack of antitrust scrutiny applied to nonreportable mergers.

At the state level, New York's legislature introduced the "Twenty-First Century Anti-Trust Act" (S933). It establishes a state-level premerger notification requirement. As originally written, it would target much smaller transactions than federal reporting requirements, but it would be limited to persons or entities conducting business in the state. An amended version of the bill that was introduced in May 2022 as amended the original threshold upwards.

At the federal level, prior approval was restored. In July 2021, the Commission rescinded a 1995 policy statement, which had prevented it from imposing these merger restrictions. This restores the long-established practice of routinely restricting future acquisitions for merging parties that pursue anticompetitive mergers. As a result, acquisitive firms will have to obtain prior approval from the agency before closing any future transaction affecting each relevant market for which a violation was alleged, for a minimum of ten years.

Also at the federal level, Congress is contemplating lowering HSR thresholds. Senator Richard Blumenthal discussed introducing these changes. See March 2019 Subcommittee hearing on "Does America Have a Monopoly Problem?: Examining Concentration and Competition in the US Economy" at 1:36:00.[6]

In the technology sector specifically, the Federal Trade Commission (FTC) issued special orders in February 2020 that compelled the five largest US firms to disclose all acquisitions over the past decade. The resulting report, which was published 18 months later, revealed over 1,000 previously unreported mergers. It highlights that many of these deals would have been reported if the thresholds incorporated other forms of consideration (e.g., debt, deferred compensation, and milestone payments to sellers).

The European Commission expanded reporting requirements. In March 2021, it published a guidance paper that encourages national competition authorities to refer mergers to the EC for review even if they do not reach national premerger notification thresholds in the Member States. Under Article 22, a Member State may request that the EC to review a transaction if it (a) affects trade between Member States and (b) threatens to significantly affect competition.

A2. Supplementary tables and figures

The sample on which this paper is based differs slightly from the same on which Wollmann (2019) is based. To ensure the results presented in this paper are immediately comparable to those presented in the prior work (and to save the reader time referring back to that paper), I replicate the exercise used to produce the main result (i.e., Figure 3) of Wollmann (2019). Figure A1 reports the result.

Figure A2 replicates Figure 2 but compares mergers with publicized values with all mergers. This comparison makes apparent that accounting for mergers with unpublicized values affects qualitative evaluation of

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[6]https://www.judiciary.senate.gov/meetings/does-america-have-a-monopoly-problem-examining-concentration-and-competition-in-the-us-economy
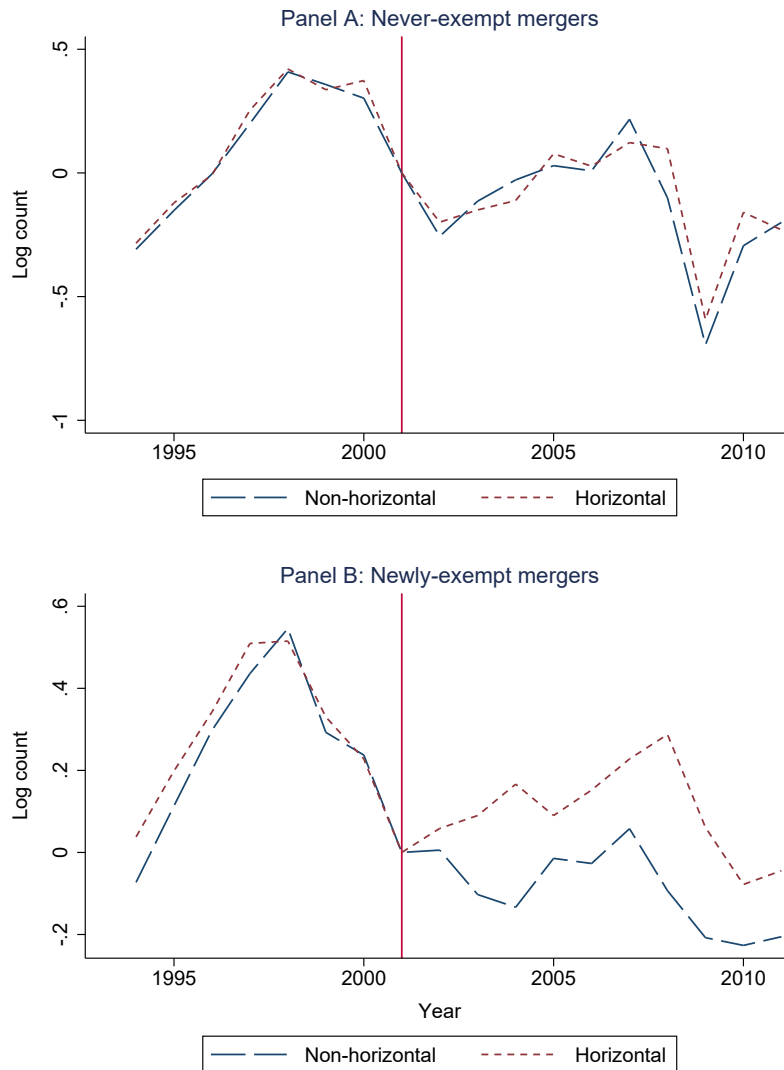
FIGURE A1. HORIZONTAL MERGERS WITH UNPUBLICIZED VALUES INCREASE FOLLOWING THE AMENDMENT

Note: For reference, this graph replicates the main result of Wollmann (2019). It plots the log of the number of horizontal and non-horizontal mergers over time. The underlying sample consists of deals with *unpublicized* values. A vertical line marks 2001, the year the HSR Act was amended to raise the size-of-transactions threshold. To facilitate comparisons, both series are normalized to zero in that year (i.e., the lines that connect the plotted points intersect y = 0 in 2001).

A3.   Data sources and summary

Refinitiv has been previously referred to as Thomson Reuters Mergers and Acquisitions Database, Eikon, and Securities Data Corporation (i.e., SDC). It tracks global ownership transfers and is by far the most comprehensive source of this information, especially for US mergers (see Barrios and Wollmann (2022) for various facts that support this claim). It reports the target's and acquirer's names, CUSIPs, primary four-digit SICs, nations in which they are headquartered and incorporated, and organization types (e.g., public company, private company, subsidiary, government-owned entity, etc.) in addition to other select deal-specific information, including an announcement and effective dates.

S&P Capital IQ's Compustat Annual Snapshot North America provides firm-year level financial data. I accessed the data through Wharton Research Data Services (WRDS). Each record provides the registrant's legal name, fiscal year, CUSIP, the month of fiscal year-end, as well as various measures of financial performance described below. The most important for my purposes is cash paid for acquisitions, i.e., the dataset" AQC variable.

To infer mergers whose values are unpublicized, I start with the Refinitiv-sourced transaction level merger data, described immediately above. I then assign each merger a deal a fiscal year. To compute the cash value of disclosed mergers, I multiply each transaction value by the proportion paid in cash and sum across transactions. To compute the stock value of disclosed mergers, we replicate the process but multiply by one minus the portion paid in cash (rather than the proportion itself). These computations effectively collapse the data to the level of the firm and fiscal year. Separately, I obtain the cash value of all mergers off the cash flow statement, which Compustat reports at the firm and fiscal year level. I then merge the Thomson/SDC-derived data with Compustat.

A4.   Procedure that infers unpublicized values of mergers

The procedure relies on reporting requirements imposed by the Financial Accounting Standards Board (FASB), which mandates that managers report the total value of cash mergers annually, irrespective of whether any deal-specific information about the underlying transactions is released. The value of cash mergers is reported on the firm's statement of cash flows. We obtain this information from S&P Capital IQ's Compustat Annual Snapshot North America, which we access through Wharton Research Data Services.

The procedure distinguishes between (a) mergers with disclosed and undisclosed transaction values and between (b) the cash value and the stock value of mergers. Since mergers involving stock transfers are typically large and require additional disclosures related to stock issuance, one can assume that all mergers where the seller receives stock have disclosed transaction values. Under this assumption, one can infer transaction values even when terms of the deal are not disclosed. To illustrate, suppose (a) a firm reports $40 million in cash acquisitions in a particular year, (b) Refinitiv reports that during that period the firm was involved in exactly one merger, and (c) the transaction value of the merger was not disclosed. One can reasonably infer that the transaction value of that deal was $40 million. Further, suppose that (a) a firm reports $60 million in cash acquisitions in a particular year, (b) Refinitiv reports that during that period the firm was involved in exactly two mergers, (c) the transaction value of one merger was not disclosed, and (d) the transaction value of the other was $25 million. One can reasonable infer that the value of the deal whose transaction value was not disclosed is $45 million. See Barrios and Wollmann (2022) for details and for a validation of this approach.
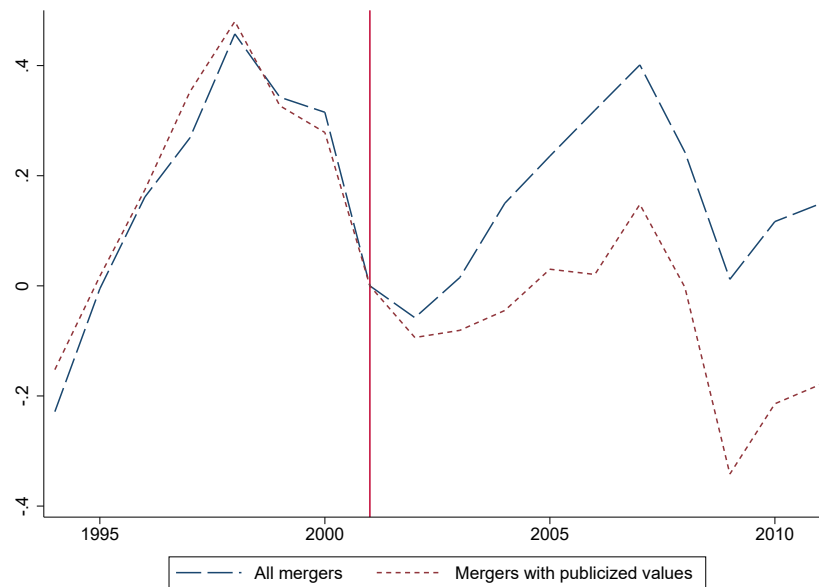
FIGURE A2. ACCOUNTING FOR MERGERS WITH UNPUBLICIZED VALUES AFFECTS WAVE AMPLITUDE

Note: This graph replicates Figure 2 in the body of the main text but replaces mergers with unpublicized values with all mergers, i.e., it plots the log of the number of all mergers and mergers with publicized values over time. A vertical line marks 2001, the year the HSR Act was amended to raise the size-of-transactions threshold. To facilitate comparisons, both series are normalized to zero in that year (i.e., the lines that connect the plotted points intersect y = 0 in 2001).