

**DOES MERGER CONTROL WORK?
A RETROSPECTIVE ON U.S. ENFORCEMENT
ACTIONS AND MERGER OUTCOMES**

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Introduction

- In recent years retrospective studies of mergers have become the focus of considerable effort and attention by policymakers and academics
- This paper is neither a new retrospective nor simply survey of the existing literature
- We have conducted an exhaustive search of the literature, collecting studies that estimate the effect of individual mergers
- We then augment these studies with information about the antitrust agencies' competitive assessments of the mergers

Criteria for 26 Qualifying Articles

- Must address one or more mergers individually
- Must have appeared in a peer-reviewed journal in economics or closely related discipline, or in a respected working paper series such as that from the NBER, FTC, or DOJ
- Must study transactions (mergers and acquisitions or joint ventures/alliances) with major effects on horizontal competition
- Must study transactions involving U.S. companies and markets

Not a random sample

- Mergers studied are almost all “close calls” and hence competitively interesting
- Include cases where:
 - antitrust agency brought no challenge
 - agency and merging parties reached a pre-merger agreement resolving competitive concerns with divestitures, conduct remedies, etc.
 - cases in which the agency’s challenge was rejected by a court or other entity with primary jurisdiction
 - agency filed an antitrust complaint after the merger was consummated

Overview of articles and “transactions”

- 58 distinct article-transaction combinations
 - some articles analyze more than one transaction and some transactions are analyzed in more than one article
- “Transactions” represent corporate mergers or joint ventures with two exceptions:
 1. Guinness-Grand Met is separated into 3 observations, one for Gin, Scotch, and Vodka
 2. Maytag-Whirlpool is separated into 4 observations, one for clothes washer, clothes dryers, refrigerators, and dishwashers

Dataset construction

- To construct a single price effect for each article-transaction combination we:
 - Accept any guidance provided by the author as to the most reliable summary estimate
 - Also strive to identify and record the estimates that address the central concern about the merger, rather than inquiries into secondary effects
 - Then we take a simple average of the remaining estimates
- 47 transaction-level average price effects
 - When a transaction is studied in more than one article, we take a simple average across studies

Price Effects of the Transactions

	ALL TRANSACTIONS		MERGERS	
	Price Change	Number of Cases	Price Change	Number of Cases
Overall	5.73%	47	7.11	40
Increases	8.64	36	9.09	34
Decreases	-3.80	11	-4.10	6

From Mergers to Merger Policy

- Evaluation of merger *policy* requires information on agency actions toward mergers with price studies
- Information on agency actions found in
 - Court proceedings
 - Consent decrees/Competitive Impact Statements
 - Agency statements
- But no public information in many cases
 - Implies no formal action against merger
 - Likely an investigation

Types of Agency Actions

Four categories of agency actions

(1) Cleared without action

- Includes cases where clearance subject to minor initial modification
 - Example: Deletion of non-compete clause

(2) Approved subject to conduct remedy

- Conduct remedy permits merger but constrains behavior

(3) Approved subject to divestiture remedy

- Divestiture of overlapping assets intended to preserve competition
- Generally viewed as stronger action than conduct remedy

(4) Opposed

- Mergers opposed by DOJ but approved by DOT or STB

Frequency of Agency Actions

	All Transactions	Mergers
Opposed	5	5
Divestiture	5.5	4.5
Conduct	3.5	3.5
Cleared	10	9

Implications

- Considerable enforcement activity against these transactions
- More than half approved subject to conditions or opposes

Price Outcomes and Agency Actions

- Mean price change by agency action

	All Transactions	Mergers
Opposed	1.84%	1.84
Divestiture	4.87	5.84
Conduct	17.10	17.10
Cleared	6.37	7.08
No Information	5.00	7.20

Implications

Major implication:

All categories show price increases

Details:

- Cases opposed by DOJ result in modest price increases
- Neither conduct nor structural remedies very effective
- Conduct remedies notably ineffective
- Cases cleared or for which there is no information (but likely an investigation) result in nontrivial price increases

Agency Actions and Price Outcomes

- Do agency actions match competitive problem?
 - Ex ante “competitive problem” measured by ex post price outcome

	Price Outcomes			
Agency Action	Decrease	0 – 5%	5 – 10%	10%+
a) None	2	2	4	2
b) Remedies	0	4	1	4

Implications

- Challenges in 4 of 6 cases with large price increases
 - But not in either case where price fell
 - Means proportion test finds significance at 10.1%
- But note that despite remedies in cases of greatest competitive threat, prices increased anyway
- When cases of “no information” treated as “cleared mergers,” percentages change but results similar

Probit Analysis of Remedies vs. No Action

- Dependent variable: Remedy = 1, No action = 0
- Define single dummy variable for price outcome:
 - 0 for cases where price decreases
 - 1 for cases where change in price between 0 and 10%
 - 2 for cases where price change exceeded 10%
- Examine all data, but focus on
 - Cases where investigation acknowledged
 - Cases involving true Mergers

Probit Analysis of Agency Actions

	Acknowledged (a)	Acknowledged plus no information (b)
Price Dummy	.835	.728
	(1.69)	(2.49)
Constant	-1.10	-1.64
	(1.69)	(4.10)
Pseudo-R ²	.102	.104
N	19	42

Implications

- Price Dummy generally significant, or close
 - Implies greater likelihood of policy action where competitive threat greater
 - True for 23 cases with acknowledged results
 - Also when those with no information included
- Inclusion of variable for Year shows increasing likelihood of clearance over time

Caveats

- Small numbers
- Classification issues
- Inclusivity
- Selection issues