HORIZONTAL MERGER ENFORCEMENT UNDER THE HART-SCOTT-RODINO ACT: POLITICAL AND ECONOMIC FACTORS AFFECTING ENFORCEMENT AT THE FTC AND DOJ

A Thesis
submitted to the Faculty of the
Graduate School of Arts and Sciences
of Georgetown University
in partial fulfillment of the requirements for the
degree of
Master of Public Policy
in Public Policy

By

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Washington, DC
March 29, 2011

HORIZONTAL MERGER ENFORCEMENT UNDER THE HART-SCOTT-RODINO ACT:
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ABSTRACT

All government agencies are affected by a broad number of factors that determine how they do their job. It is particularly important for regulatory agencies in the area of consumer protection, that they complete their tasks in a way that is both fair and beneficial for consumers. In this paper, I attempt to assess the effect of a variety of political, economic, and budgetary factors on the Department of Justice (DOJ) and Federal Trade Commission (FTC) regarding their role in horizontal merger enforcement. I use three simple regression models with the dependent variable of the number of mergers challenged by the DOJ, FTC, and combined. The independent variables assessed are the total number of mergers filed, party of the President, ideological measurements of the House and Senate Judiciary Committees, S&P 500 growth, the unemployment rate, and the budgets of the two agencies. I find that the political variables have no significant effect in any of the three regressions. The number of mergers filed is significantly and positively correlated in all three regressions. S&P 500 growth and unemployment both have a significant effect on the number of merger challenges by the DOJ but not the FTC. Both the FTC and DOJ are significantly affected by the size of their respective budgets. In the overall regression, I find that unemployment, S&P 500 growth, and budgets have a significant impact on the total number of mergers challenged. The differential effect of the economic factors on the DOJ and FTC can help to show policymakers the strengths and weaknesses of the two agencies

as well as show what factors might contribute to an agency's ability to equitably and effectively complete is job.

Acknowledgments

I would like to thank the many people who have made this thesis possible, including:

The staff, faculty, and students of the Georgetown Public Policy Institute, with special thanks to Dr. John Johnson and Professor Gus Chiarello for sparking my interest in antitrust policy and Kerry Pace and Leslie Evertz for providing support and assistance whenever I needed it.

My thesis advisor, Dr. Andrew Wise, whose patience and assistance in reading my countless drafts was invaluable to myself and my fellow students. His efforts transformed this otherwise daunting task into an enjoyable undertaking.

And, finally, this thesis is dedicated to my family:

My parents for always supporting me in everything I do. Thank you for supporting my education, my intellectual curiosity, and for allowing me the freedom to explore my interests.

My soon-to-be wife, Jette, for putting up with my many hours of work, being a priceless resource for writing help, and most of all for being a constant source of comfort throughout this and all endeavors.

Many thanks,
Justin A. Henderson

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INTRODUCTION

All government agencies are affected by a broad number of factors that determine how they do their job. These factors can range from simply how big the agency's budget is to economic conditions to the ideology and goals of the President or Congress. I intend to examine how these numerous variables affected horizontal merger enforcement at the Department of Justice (DOJ) and Federal Trade Commission (FTC) from 1978 through 2009 and whether this effect differs between the two agencies.

Decisions on whether to pursue enforcement of horizontal mergers are fraught with unknowns. Despite using rigorous econometric analysis, economists at the FTC and DOJ (and for that matter, at the merging firms themselves) can never truly know whether the anti-competitive effects of a merger would outweigh its benefits.

A key question that will be asked and answered is that of the principal-agent problem. Specifically, does the FTC act as an agent of the Congress? When the judiciary committees of the House and Senate are more conservative, does this lead to a decrease in horizontal merger challenges? Similarly, does the Antitrust Division of the DOJ act as the agent of the President? Do more liberal presidents lead the agency to pursue more aggressive horizontal merger enforcement? How are these actions affected by economic factors external to the parties in power? Firms considering horizontal mergers would benefit from knowing what factors affect the likelihood of merger challenges. Policymakers, likewise, would benefit from the answers to these questions to better understand how agencies are and are not affected by their executive and legislative leaders.

Specifically, I will evaluate the impact, if any, of the following variables on the number of horizontal merger challenges brought forth by each agency.

First, I will control for the total number of horizontal mergers filed. I expect this to be positively correlated with the number of mergers challenged by both agencies. Second, I will include an indicator of the party of the President. I expect the presence of a Democratic president to be positively correlated with the number of merger challenges. Third, I will measure the ideological preferences of Congress, specifically, those committees with oversight authority for the FTC and DOJ. I expect that ideological measurements for specific committees will be significant.

To control for other external factors, I will include the growth of the S&P 500 and the annual unemployment rate as indicators of economic wellbeing. I will also include the budgets of the FTC and DOJ for 1978-2009. I expect all of these variables to be correlated with merger enforcement in a statistically significant way.

This paper is organized as follows. In the second section, I will discuss both previous research in the field along with a background on the processes and mandates regarding horizontal merger enforcement at the FTC and DOJ. Third, I will present the general mathematical relationship of horizontal merger enforcement to the variables discussed above. In the fourth section, I will present the empirical model I will be using to assess that mathematical relationship. Fifth, I will present descriptions of and summary statistics for the different variables in question. In the sixth section, I will then show the results of these regressions and discuss how they either confirm or differ with (or most likely, some combination of the two) my expectations and hypotheses. Finally, in the seventh section, I will discuss the potential policy implications of my results along with further research possibilities that might be beneficial.

Background

Passed in 1976, the Hart-Scott-Rodino Act requires companies to file notification with the FTC and DOJ for certain mergers and acquisitions. These agencies are headed by political appointees, with budgets determined by Congress, whose fate in turn lies with voters. Given this structural context, one might suspect that the decision to challenge these mergers could be affected by many different factors.

To understand how these agencies operate, it is important to understand their hierarchy as well. The FTC is headed by five commissioners appointed to staggered seven-year terms. These commissioners are appointed by the President and confirmed by the Senate. To maintain neutrality, no more than three commissioners can be of the same political party.[1] The Director of the FTC's Bureau of Competition is also appointed and confirmed by the Senate.[2]

History indicates that the culture of the FTC has allowed it to escape from direct control of the Congress in some areas. Wilson notes that during the early 1980s, the FTC began applying a new economic test to mergers, causing some members of Congress to describe the FTC as "a 'rogue agency,' pursuing 'novel' economic theories."[3] Wilson goes on to state that "if Congress 'dominated' the FTC, it could have prevented these

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[1] Federal Trade Commission. *Commissioners.* http://www.ftc.gov/commissioners/index.shtml (accessed February 21, 2011).
[2] Federal Trade Commission. "Federal Trade Commission." *Bureau of Competition 2010 User's Guide.* 2010. http://www.ftc.gov/bc/BCUsersGuide.pdf (accessed February 21, 2011).
[3] Wilson, James Q. *Bureaucracy: What Agencies Do and Why They Do It.* Basic Books, 2000.

things.[4] But it did not." In part as a result of the structure of the agency as well its leadership, the FTC has come to be dominated by economists.[5]

The DOJ is headed by the Attorney General, who is appointed by the President and confirmed by the Senate. The head of the Antitrust Division, the Assistant Attorney General for Antitrust, is also appointed by the President and confirmed by the Senate.[6] Though the DOJ is under direct control of the President as an executive, rather than a regulatory agency, this "dependence" on the executive does not necessarily mean a less independent agency. Rather than strict top-down control, "attorneys in the Antitrust Divison of the [DOJ] exercise substantial independence in initiating and developing cases," which are later reviewed by higher-level managers who "decide whether or not [the report issued] constitutes grounds for prosecution."[7] This indicates two important characteristics of the DOJ: first that executive control in the Antitrust Division is derived primarily from indirect methods such as review, and second, that the DOJ in pursuing merger challenges is governed more by a culture of lawyers than economists, which is in direct contrast to the FTC and likely affects which challenges members at each agency will choose to pursue.

Apart from agency and division heads, most employees of these two agencies are in the "career" path, that is, they were hired through an application, rather than appointment process, and typically continue at agencies through different

[4] *Ibid.*
[5] *Ibid.*
[6] Department of Justice. *Meet the Assistant Attorney General.* http://www.justice.gov/atr/about/cvarneybio.html (accessed February 21, 2011).
[7] Wilson, 2000

administrations. It can be difficult for political appointees to direct their agencies due to the systems, policies, and cultures of the agencies that have developed slowly over time and thus are external to which party has the power of appointment. This possible disconnect between directors and bureaucrats further complicates the effect external factors on department or agency decision-making

The formal review process at the agencies is guided by the principles set forth by the following acts in U.S. antitrust legislation: Section 7 of the Clayton Act, which prohibits mergers if their effect "may be to substantially lessen competition, or to tend to create a monopoly;" Section 1 of the Sherman Act, which prohibits mergers if they constitute a "contract, combination or conspiracy in restraint of trade;" and Section 5 of the FTC Act, which prohibits mergers that are an "unfair method of competition.[8]"

At both the FTC and DOJ, there are five primary steps in the merger review process.[9] First, mergers or acquisitions that meet the "filing threshold," must file their merger with the two agencies. The filing threshold includes minimum firm-size requirements and minimum deal value requirements. Furthermore, certain stock and physical property acquisitions are exempt from filing requirements. While firms are required to submit filings to both the FTC and DOJ, each merger is only reviewed by one agency. The decision regarding which agency reviews the filing is dependent on a variety of circumstances. In general, the FTC takes cases in which consumer interest and consumer spending are high, such as those regarding energy, real estate, health care,

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[8] Johnson, John. "Economic Concepts in Merger Analysis." *Class Lecture.* Washington: Gerogetown University, February 1, 2010.
[9] Federal Trade Commission. *Mergers: Premerger Notification and the Merger Review Process*. http://www.ftc.gov/bc/antitrust/premerger_notification.shtm (accessed February 20, 2011).

pharmaceuticals, professional services, cable television, computer technology, video programming, and broadband access.[10] The DOJ has sole authority in some industries including telecommunications, banks, railroads, and airlines.[11] Despite this general organizational system, the agencies typically compete for merger review cases, often independent of these "industries of expertise." The process is further complicated by the fact that any evidence of criminal antitrust violations during an FTC review is referred to the DOJ.[12] Once the staffs of the two agencies have determined which agency will review the merger, the agency can request and obtain non-public information to help assess the competitive effects of the merger.

After an agency completes a preliminary review, there are three possibilities.[13] First, the agency can grant Early Termination of the review, and the firms are allowed to consummate the transaction. Second, the agency can allow the 30-day waiting period to expire, and the firms are allowed to consummate the transaction. Third, the agency can issue a Request for Additional Information (or "Second Request"), extending the waiting period, and typically requiring the firms to hand over more business documents, data, and other information that will allow the agency to better assess the effects of the merger. Once this information has been given to the agency, there is typically a second 30-day

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[10] Federal Trade Commission: Bureau of Competition. *Competition Counts: How Consumers Win When Businesses Compete.* http://www.ftc.gov/bc/edu/pubs/consumer/general/zgen01.pdf (accessed February 21, 2011).

[11] Federal Trade Commission. *FTC Guide to the Antitrust Law: The Enforcers.* http://www.ftc.gov/bc/antitrust/enforcers.shtm (accessed February 21, 2011).

[12] *Ibid.*

[13] Federal Trade Commission. *Mergers: Premerger Notification and the Merger Review Process.* http://www.ftc.gov/bc/antitrust/premeger_notification.shtm (accessed February 20, 2011).

waiting period allowing the agency to review the information and take any necessary action.

After the second waiting period, there are three possible outcomes from the firms in question.[14] First, the agency can close the investigation, and the merger is allowed to continue. Second, the agency can enter into a "negotiated consent agreement" and allow the transaction, but require certain actions to preserve a competitive marketplace, such as divestiture from certain assets or geographic areas. Third, the agency can file a preliminary injunction and attempt to stop the transaction through the federal courts. Typically, though not always, if the third action is taken, companies abandon the merger as defending it in court is both time-consuming and expensive.

In addition to the often somewhat random determination of which agency reviews the merger, merger review is further complicated by the fact that the DOJ and the FTC are not equal in their ability to stop transactions. Courts have interpreted the antitrust laws to mean that a merger violates the law "if there is a 'reasonable probability' that it would lessen competition. Thus any merger posing a 50 percent chance of substantially lessening competition violates the substantive antitrust laws," which allows the FTC a relatively low threshold in issuing a preliminary injunction.[15] Due to "some statutory quirks," the DOJ does not face this same low threshold.[16]

How should the FTC and DOJ determine their role in choosing to challenge some merger transactions while allowing others to proceed? A substantial amount of work has

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[14] *Ibid.*
[15] Lambert, Thomas A. "Four Lessons from the Whole Foods Case." *Regulation: The CATO Review of Business and Government*, Spring 2008: 22-29.
[16] *Ibid.*

been devoted to this area. The traditional bureaucratic approach to this question "argues that agencies are independent of the legislature," pursuing "their own private goals rather than the public purposes for which they were originally created."[17] The second approach to this question "argues that agencies are directly tied to (or operate in alliance with) the legislature or specific committees within the legislature."[18] In a study on the FTC, Weingast and Moran find that it is not the entire Congress that seems to have the most influence, but rather specific committees that directly oversee the agencies in question.[19]

Wilson presents many factors that affect the amount of agency control that the Congress is able to exert. While the Congress can control an agency's budget and the general way in which that budget is spent, it cannot control specifics, like employees hired or the pay of individual employees. Furthermore, the Congress has often tied its own hands to keep regulatory agencies from being too political and "too much under the day-to-day control of Congress or the President."[20] Other scholars have found that the agencies relevant to merger enforcement are structured in such a way as to keep merger policy relatively stable from Congress to Congress and across administrations.[21]

Despite this relative stability, the subjectivity of antitrust enforcement means that presidents can have an impact on the aggressiveness of that enforcement. Presidents can, with a compliant Congress, direct resources, occasionally appoint FTC commissioners,

[17] Weingast, Barr R, and Moran Mark J. "Bureaucratic Discretion or Congressional Control? Regulatory Policymaking by the Federal Trade Commission." *The Journal of Political Economy, Vol 91, No 5*, October 1983: 765-800.
[18] *Ibid.*
[19] *Ibid.*
[20] Wilson, 2000.
[21] Leary, Thomas B. *The Essential Stability of Merger Policy in the United States.* 70 Antitrust L.J. 105 (2002-2003).

and appoint the Attorney General who will oversee antitrust enforcement in the DOJ. A president's ability to do these things may be affected by public sentiment and the makeup of Congress.[22,23]

Furthermore, agency guidelines can change over time. The FTC and DOJ periodically release new guidelines for horizontal mergers. The guidelines are meant to "assist the business community and antitrust practitioners by increasing the transparency of the analytical" processes used by the two agencies.[24] The document

> "outline[s] the principal analytical techniques, practice, and the enforcement policies of the [DOJ] and [FTC] … with respect to mergers and acquisitions involving actual or potential competitors .. under the federal antitrust laws."[25]

New Horizontal Merger Guidelines are issued periodically to "reflect the ongoing accumulation of experience at the agencies."[26] Other research has examined the impact of the merger enforcement guidelines, concluding that they make up only a part of the decision-making process at the FTC.[27] In a later study, Coate questions whether changing guidelines reflect new policies or merely describe the natural evolution of policies over time.[28]

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[22] Kovaleff, Theodore P. "Grading the Clinton Antitrust Policy as Enforced by the Antitrust Division of the Department of Justice." *53 Antitrust Bulletin*, 2008: 1027.
[23] Krattenmaker, Thomas G, and Robert Pitofsky. "Antitrust Merger Policy and the Reagan Administration." *33 Antitrust Bulletin*, 1988: 211.
[24] Department of Justice and Federal Trade Commission. *Horizontal Merger Guidelines.* August 19, 2010. http://ftc.gov/os/2010/08/100819hmg.pdf (accessed March 17, 2011).
[25] *Ibid.*
[26] *Ibid.*
[27] Coate, Malcom B, and Fred S McChesney. "Empirical Evidence on FTC Enforcement of the Merger Guidelines." *Economic Inquiry, Vol. XXX*, April 1992: 277-293.
[28] Coate, Malcom B. "Do Merger Guidelines Revise or Describe Policy: The Case of the 1997 Efficiency Revision." *Working Paper.* October 2010.

As touched on before, politicians and their appointees can only do so much to direct any government agency. The activities and decisions made by the economists and lawyers at the DOJ and FTC are also strongly affected by the nature of these bureaucracies and the many non-appointed career employees. Additionally, legislation has been passed with the express purpose of making the FTC a non-partisan agency. One study found that while party affiliation of FTC commissioners matters in decision-making, the “FTC Act has been successful in achieving some political balance.”[29]

Additionally, key decision-makers are affected not just by party or ideological preferences, but by economic merits as well. Some researchers have focused on this aspect of merger enforcement, analyzing the effect of factors like pre- and post-merger market concentration, perceived efficiencies, and barriers to entry. Review of the literature indicates that the weight of these economic factors may be changing over time. According to one study, over the past forty years, federal courts and the relevant antitrust agencies have declined dramatically in the weight they give to market concentration, instead giving increasing weight to “arguments often made by merging firms in their defense: entry, expansion and efficiencies.”[30]

In the past decade, researchers have more closely looked at the economic and political factors affecting antitrust enforcement. Ghosal and Gallo find that the number of cases initiated by the Antitrust Division of the DOJ increases during economic

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[29] Coate, Malcom B, and Andrew N Kleit. "The Political Economy of Federal Trade Commission Administrative Decision Making." *Working Paper 210.* November 1995.
[30] Baker, Jonathan B, and Carl Shapiro. "Reinvigorating Horizontal Merger Enforcement." *Kirkpatrick Conference on Conservative Economic Influence on U.S. Antitrust Policy, Georgetown Univeristy Law School.* Washington, 2007.

downturns.[31] Controlling for the political party of the President as well as the majority parties in each chamber of Congress, Ghosal and Gallo also find that party affiliation "does not have a clear impact on case activity."[32] In a later paper, Ghosal addresses the impact of politics on merger enforcement at the Antitrust Division of the DOJ. In this analysis, he finds that there is no "evidence that Republicans initiate less merger challenges than democrats," but that Republican administrations initiate fewer civil cases than their Democratic counterparts.[33]

While Ghosal and others have looked broadly at antitrust enforcement and more specifically at merger enforcement, little research and analysis has been done specifically on horizontal mergers, whose enforcement is guided by the Hart-Scott-Rodino Act of 1976. In this paper, I will be assessing the influence of a variety of factors on horizontal merger enforcement. Further, while many previous studies have focused specifically on the FTC or the Antitrust Division of the DOJ, I will be assessing the impact on both of these agencies together, in addition to how these agencies might be differentially affected by external factors. This research will broaden our understanding of the different roles played by the FTC and DOJ in merger enforcement and how these roles are impacted within the context of relevant political and economic factors.

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[31] Ghosal, Vivek, and Joseph Gallow. "The cyclical behavior of the Department of Justice's antitrust enforcement activity." *International Journal of Industrial Organization, 19*, 2001: 27-54.
[32] *Ibid.*
[33] Ghosal, Vivek. "Politics, Economics and Merger Enforcement." *CES ifo, Venice Summer Institute.* Venice, 2004.

THEORETICAL FRAMEWORK

I will be assessing the relationship of number of horizontal mergers challenged, as governed by the Hart-Scott-Rodino Act of 1976 and a variety of political and other factors:

(1) CHAL = *f*(TMERG, SENID, HOUSID, PRESDEM, SP500GROWTH, UNEMPLOYMENT, LNFBUD, LNJBUD)

Where:

CHAL is the number of horizontal mergers challenged by both the FTC and DOJ;

TMERG is the total number of horizontal mergers filed;

SENID is the ideology of the Senate Judiciary Committee;

HOUSID is the ideology of the House Judiciary Committee;

PRESDEM represents the party of the president;

SP500GROWTH is the annual growth of the S&P 500;

UNEMPLOYMENT is the annual unemployment rate;

LNFBUD is the natural logarithm of the budget of the FTC;

and LNJBUD is the natural logarithm of the budget of the Antitrust Division of the DOJ.

The general idea of the model is to determine the effect that the above variables have on the merger challenges brought forth by the DOJ and FTC. As agencies of the Executive Branch and the Congress, respectively, I intend to find whether or not the actions of these agencies in the realm of horizontal merger enforcement are swayed by these external factors.

EMPIRICAL MODEL

In the previous section, I laid out the high level model I will be using to address my question. More specifically, I will use a robust ordinary least squares regression to estimate the following three models:[34]

(2) $$CHAL = \beta_0 + \beta_1 TMERG + \beta_2 SENID + \beta_3 HOUSID + \beta_4 PRESDEM + \beta_5 SP500GROWTH + \beta_6 UNEMPLOYMENT + \beta_7 LNFBUD + \beta_8 LNJBUD + \varepsilon$$

(3) $$CHAL_F = \beta_0 + \beta_1 TMERG + \beta_2 SENID + \beta_3 HOUSID + \beta_4 PRESDEM + \beta_5 SP500GROWTH + \beta_6 UNEMPLOYMENT + \beta_7 LNFBUD + \varepsilon$$

(4) $$CHAL_J = \beta_0 + \beta_1 TMERG + \beta_2 SENID + \beta_3 HOUSID + \beta_4 PRESDEM + \beta_5 SP500GROWTH + \beta_6 UNEMPLOYMENT + \beta_8 LNJBUD + \varepsilon$$

Where (with expected signs in parentheses):

CHAL is the number of mergers challenged. The "F" subscript denotes challenges by the FTC. The "J" subscript denotes challenges by the DOJ. No subscript denotes the combined merger challenges of the two agencies.

TMERG is the total number of merger transactions filed in a given year, (+);

SENID is the ideology of the Senate Judiciary Committee, ranging from values of 0 to 1, where 1 is the most liberal, (+ for Models (2) and (3), + or 0 for Model (4));

[34] Using a robust model corrects for issues of heteroskedasticity. Hetereoskedasticity fails the assumption of non-robust ordinary least squares regression that the error term is uncorrelated to the independent variables in the model. Hetereoskedasticity does not bias coefficients, but does affect the variance of those coefficients.

HOUSID is the ideology of the House Judiciary Committee, ranging from values of 0 to 1, where 1 is the most liberal, (+ for Models (2) and (3), + or 0 for Model (4));

PRESDEM is the ideology of the President, having either values of 0 or 1, where 1 is the value for presidents from the Democratic Party;

SP500GROWTH is annual growth of the S&P 500, (-);

UNEMPLOYMENT is the annual unemployment rate (-);

LNFBUD is the natural logarithm of budget of the FTC, (+);

LNJBUD is the natural logarithm of budget of the Antitrust Division of the DOJ, (+);

and ε is the error term.

I expect the sign on TMERG to be positive and significant for all three regressions. It would follow that a greater number of total HSR merger transactions filed would correlate with a greater number of mergers challenged.

I expect the sign on SENID to be positive and significant for CHAL and $CHAL_F$, reflecting the fact that a more liberal Senate Judiciary Committee is likely to be correlated with a greater number of mergers challenged overall and by the FTC. I expect SENID to be positive, though not necessarily statistically significant for $CHAL_J$, as the DOJ is under the purview of the Executive Branch.

I anticipate that the sign on HOUSEID will be positive and significant for CHAL and $CHAL_F$, reflecting the fact that a more liberal House Judiciary Committee is likely to be correlated with a greater number of mergers challenged overall and by the FTC. I predict HOUSEID will be positive, though not necessarily statistically significant for $CHAL_J$, as the DOJ is under the purview of the Executive Branch.

I expect the sign on PRESDEM to be positive and significant for CHAL and $CHAL_J$. A more liberal president is likely to take a more aggressive antitrust stance on horizontal mergers, which I expect to be reflected through the number of challenges by the DOJ. I anticipate that PRESDEM be positive, though not necessarily statistically significant for $CHAL_F$, as the FTC reports to Congress.

I expect the sign on SP500GROWTH to be negative for CHAL, $CHAL_J$, and $CHAL_F$. A booming economy might mean that these agencies, those who oversee them in the Executive and Legislative Branches, and their constituents are less concerned with constraining businesses attempting horizontal mergers.

I expect the sign on UNEMPLOYMENT to be negative for all three models. High unemployment might operate opposite SP500 growth for the same reasons. In a struggling economy with high unemployment, the DOJ, FTC, and those who oversee them, may be more concerned with consumer protection issues than at other times.

I expect the sign on LNFBUD to be positive for CHAL and $CHAL_F$. A larger budget would allow the FTC to pursue more merger challenges. Similarly, I expect the sign on LNJBUD to be positive for CHAL and $CHAL_J$, reflecting the fact the DOJ is be able to pursue more challenges with a larger budget.

DATA

To conduct these regressions, I assembled time-series data for the relevant variables from 1977, which was the year following the passage of the Hart-Scott-Rodino Act, through 2009.

In order to find the number of mergers filed, I consulted annual reports presented to Congress for the years 1977 to 2008 together by the DOJ and FTC regarding Hart-Scott-Rodino enforcement and statistics. The 1977 report primarily concerns how the law will be implemented by the relevant agencies. For 1978 through 2008, these reports contained the total number of transactions filed, the total number of FTC challenges, and the total number of DOJ challenges.[35] For the year 2009, I relied on data published individually by the two agencies, adding the two to get the total number of transactions filed.[36,37]

To assign a rating to the ideologies of House and Senate Judiciary Committees, I first found the relevant membership of each committee for the relevant years from the committees' websites.[38] Membership on the House Judiciary Committee was available online from 1995 through 2010.[39] Membership prior to 1995 was available in hard copy

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[35] Federal Trade Commission: Bureau of Competition. *Annual Competition Enforcement Reports.* Annual Report, Washington: Government Printing Office, 1978-2008. Available at: http://www.ftc.gov/bc/anncompreports.shtm

[36] Federal Trade Commission. *Competition Enforcement Database: Merger Enforcement Actions.* http://www.ftc.gov/bc/caselist/merger/index.shtml (accessed February 20, 2011).

[37] Department of Jutice: Antitrust Division. *Workload Statistics FY 2000-2009.* 2010. http://www.justice.gov/atr/public/workload-statistics.html (accessed February 20, 2011).

[38] United States Senate Committee on the Judiciary. *Committee Membership in Previous Congresses.* http://judiciary.senate.gov/about/PreviousCommitteeMembership.cfm (accessed February 20, 2011).

[39] United States Congress. "Congressional Directory." Washington: Government Printing Office, 1977-2009. 1997-2009 available at: http://www.gpoaccess.gov/cdirectory/browse.html

in the annual Congressional Record.[40] For each committee, I then cross-referenced these membership listings with annual vote ratings generated by the Americans for Democratic Action.[41] I then took the annual mean based on these voting records to define the ideology of the House and Senate Judiciary Committees.

Both the FTC and DOJ Antitrust Division budgets are available online. I adjusted these budgets to 1977 dollars according to Consumer Price Index data available from the Bureau of Labor Statistics and then took the natural logarithm of the these budget numbers.[42,43,44,45,46,47,48]

Finally, I used S&P 500 growth and the annual unemployment rate as indicators of economic well-being. To calculate the average annual S&P 500 index, I took the average of the monthly opening across the twelve months for each year.[49] Previous

[40] *Ibid.*
[41] Americans for Democratic Action. "Congressional Voting Record." 1977-2009. http://www.adaction.org/pages/publications/voting-records.php (accessed February 20, 2011).
[42] Federal Trade Commission. *Federal Trade Commission Appropriation History.* http://www.ftc.gov/ftc/oed/fmo/appropriationhistory.shtm (accessed February 20, 2011).
[43] Department of Justice: Justice Management Division. *Budget Trend Data 1975 Through the President's 2003 Request to Congress.* Washington: Government Printing Office, 2003. Available at: http://www.justice.gov/archive/jmd/1975_2002/btd02tocpg.htm (Accessed 20 Feb, 2011)
[44] Department of Justice: Antitrust Division. *Congressional Submission FY 2008 Budget Performance.* http://www.justice.gov/jmd/2008justification/pdf/21_atr.pdf (accessed February 20, 2011).
[45] Foer, Albert A. "The Federal Antitrust Commitment: Providing Resources to Meet the Challenge." *The American Antitrust Institute.* http://www.antitrustinstitute.org/files/whitepaper.pdf (accessed February 20, 2011).
[46] Department of Justice: Antitrust Division. *FY 2005 Budget and Performance Summary.* 2005. http://www.justice.gov/2005summary/html/p78-80.htm (accessed February 20, 2011).
[47] Federal Trade Commission. *Annual Report of the Federal Trade Commission for the Fiscal Year Ended September 30, 1977.* Annual Report, Washington: Government Printing Office, 1977. Available at: http://www.ftc.gov/os/annualreports/ar1977.pdf (Accessed 20 Feb, 2011).
[48] InflationData.com. *Historical CPI-U data from 1913 to the present.* http://www.inflationdata.com/inflation/consumer_price_index/historicalcpi.aspx (accessed February 20, 2011).
[49] Yahoo! Finance Historical Prices. *Monthly S&P 500 Prices: January 1, 1977 through December 31, 2009.* http://finance.yahoo.com/q/hp?s=^GSPC&a=00&b=1&c=1977&d=11&e=31&f=2009&g=m (accessed February 20, 2011).

research has found the S&P 500 to be a reliable economic indicator when measuring the activity of these agencies.[50] For annual unemployment, I used data available from the Bureau of Labor Statistics.[51]

The following table contains summary statistics for the data described above:

Table 1

Descriptive Statistics

Variable	Observations	Mean	Min	Max
Enforcement Variables				
HSR Merger Transactions	32	2,058.41	355	4,926
FTC Challenges	31	13.451613	2	33
DOJ Challenges	31	15.064516	3	51
Total Challenges	32	28.34375	5	84
Economic Variables				
S&P 500	34	612.33703	95.464167	1478.096
S&P 500 Nominal Growth (Percent)	33	7.9930865	-21.94696	33.62964
Unemployment (Percent)	33	6.2090909	4	9.7
Political Variables				
Democratic President*	33	13**	n/a	n/a
Senate Judiciary Committee Ideology	33	0.4859086	0.3794118	0.6
House Judiciary Committee Ideology	33	0.4944419	0.402778	0.58
Budget Variables				
FTC Budget***	33	112.0811	54.68	259.2
DOJ Antitrust Division Budget***	33	80.960394	27.7	157.8

Notes:

Adjusted monetary values are in 1977 dollars
* denotes indicator variables
** denotes number of observations with value equal to 1
*** budgets measured in millions of dollars

[50] Ghosal, 2004

[51] Bureau of Labor Statistics. *Where Can I Find the Unemployment Rate for Previous Years?* http://www.bls.gov/cps/prev_yrs.htm (accessed February 20, 2011).

RESULTS

The first of the three regressions assessed the effect of the independent variables on the combined number of horizontal merger agencies at both the FTC and DOJ. The results follow in Table 2:

Table 2

Regression on Total Challenges Filed: CHAL

Variable	Coefficient	t-statistic	p-value
TMERG***	0.0172	7.82	0.000
SENID	-28.8296	-1.06	0.300
HOUSID	9.8724	0.20	0.845
PRESDEM	-1.0535	0.76	0.761
SP500GROWTH***	-0.3009	-3.14	0.005
UNEMPLOYMENT**	3.6489	2.48	0.021
LNFBUD**	-38.6622	-2.40	0.025
LNJBUD***	86.0346	4.77	0.000
Intercept***	-169.6255	-4.01	0.001
N	32		
R^2	0.9212		
F-statistic***	41.87		

Notes:
* indicates significance at the $\alpha = .10$ level
** indicates significance at the $\alpha = .05$ level
*** indicates significance at the $\alpha = .01$ level

TMERG met expectations that a greater number of total merger transactions is positively and significantly ($p<0.000$) correlated with the combined merger challenges of the FTC and DOJ. The effect of the total mergers challenged is relatively modest, an increase in number of mergers filed results in a .017 increase in the number of mergers challenged. This is, in fact, near the mean percent of mergers challenged each year, 1.59%.

Interestingly, while the magnitude of the coefficients on Senate and House Judiciary Committee ideologies were rather large, they were insignificant ($p=0.300$ and $p=0.845$, respectively). Neither committee appears to have an effect on the number of mergers challenged. Similarly, even though the magnitude of the coefficient on the party of the President was significantly smaller, this factor also does not have a statistically significant effect ($p=0.761$) on the number of mergers challenged by these two agencies.

The economic indicators in the model are both significant. S&P 500 growth has a statistically significant ($p=.005$) effect on the total number of mergers challenged. Nominal S&P 500 growth is modestly and negatively correlated with the total number of mergers, as expected, roughly corresponding to .3 fewer mergers for every 1 percentage-point increase in growth. In contrast to my expectations, the coefficient on the unemployment rate is significant ($p=.021$) and positive. The magnitude of the coefficient on unemployment is large relative to the other non-budgetary effects. In this model, every one percentage-point increase in unemployment leads to 3.65 more mergers challenged by the two agencies.

Finally, as expected, the coefficient on the DOJ budget is both significant ($p<0.000$) and positive. The magnitude on this variable is unexpectedly quite large indicating a one percent increase in the budget of the DOJ correlates to .86 more merger challenges. The coefficient on the FTC budget is also significant ($p=0.025$) but, in sharp contrast to expectations, are negative. This unexpected result perhaps further indicates the relative independence of the FTC from external factors (as we will see in the second regression) and its role in "moderating" the DOJ when all merger challenges are lumped together into one group.

The second of the three regressions assessed the effect of the independent variables on the number of horizontal merger agencies at only the FTC. The results follow in Table 3:

Table 3

Regression on FTC Challenges Filed: $CHAL_F$

Variable	Coefficient	t-statistic	p-value
TMERG***	0.0079	6.13	0.000
SENID	0.7284	0.04	0.965
HOUSID	-23.6801	-0.79	0.437
PRESDEM	-1.2519	-0.57	0.573
SP500GROWTH	-0.0897	-1.30	0.207
UNEMPLOYMENT	0.4270	0.57	0.572
LNFBUD***	24.5468	4.71	0.000
Intercept**	-86.3484	-2.82	0.010
N	31		
R^2	0.7748		
F-statistic***	29.82		

Notes:
* indicates significance at the α = .10 level
** indicates significance at the α = .05 level
*** indicates significance at the α = .01 level

TMERG again meets expectations that more total merger transactions is positively and significantly ($p<0.000$) correlated with the number of horizontal merger challenges pursued by the FTC. As in the first regression, the effect is relatively modest, an increase of one in the total number of mergers filed correlates to a 0.0079 increase in the number of challenges pursued by the FTC. This is close to the average percent of mergers challenged by the FTC, 0.713%.

Again, while the magnitudes of the coefficients on the ideologies of the Senate and House Judiciary Committees are rather high, the coefficients themselves are insignificant (p=0.965 and p=0.437, respectively) indicating that these ideologies do not have an effect on the number of mergers challenged by the FTC, in contrast to my expectations. Similarly, the party of the President has no statistically significant effect (p=0.573) on the number of mergers challenged by the FTC.

Interestingly, and in contrast to the other two models, neither of the economic variables was significant in predicting the number of mergers challenged by the FTC. Both S&P 500 growth (p=0.207) and unemployment (p=0.572) were insignificant. The lack of effect by those external factors perhaps indicates greater independence by the FTC than the DOJ in agency determination of which mergers to challenge, an issue that will be further explored in the policy implications section.

Finally, as expected, the coefficient on the FTC budget is positive and significant (p<0.000). When no longer including DOJ challenges, the positive sign on the coefficient meets expectations. While in the opposite direction, the effect is of similar magnitude as the first regression; a one-percent increase in the FTC budget is correlated to a .245 increase in the number of mergers challenged by the FTC.

The final of the three regressions assessed the effect of my independent variables on the number of horizontal merger agencies at just the DOJ. The results follow in Table 4:

Table 4

Regression on Department of Justice Challenges Filed: $CHAL_J$

Variable	Coefficient	t-statistic	p-value
TMERG***	0.0121	10.11	0.000
SENID	-13.2664	-0.67	0.512
HOUSID	-22.5115	-0.76	0.456
PRESDEM	2.7912	1.21	0.240
SP500GROWTH*	-0.1553	-1.94	0.065
UNEMPLOYMENT***	2.5382	2.88	0.008
LNJBUD***	20.9452	3.73	0.001
Intercept***	-80.7893	-2.84	0.009
N	31		
R2	0.8977		
F-statistic***	34.28		

Notes:
* indicates significance at the $\alpha = .10$ level
** indicates significance at the $\alpha = .05$ level
*** indicates significance at the $\alpha = .01$ level

TMERG again meets expectations that more total merger transactions is positively and significantly (p<0.000) correlated with the number of horizontal merger challenges pursued by the DOJ. As in the first regression, the effect is relatively modest; an increase of one in the total number of mergers filed correlates to a 0.0121 increase in the number of challenges pursued by the DOJ. This is relatively close to the average percent of mergers challenged by the DOJ, 0.700%.

As in the first two regressions, while the magnitudes of the coefficients on the ideologies of the Senate and House Judiciary Committees are rather high, the coefficients themselves are insignificant (p=0.512 and p=0.456, respectively) indicating that these ideologies do not have an effect on the number of mergers challenged by the DOJ. Similarly, the party of the President has no statistically significant effect (p=0.240) on the number of mergers challenged by the DOJ.

The economic indicators in the model, in contrast to that of the FTC model, are both significant. S&P 500 growth is negatively correlated with mergers challenged and significant, though only at the 10% level (p=0.065). A one-percentage point increase in nominal S&P 500 growth is correlated to a 0.1553 decrease in the number of mergers challenged by the DOJ. The coefficient on the unemployment rate is significant (p=0.008) and positive, in contrast to my expectations. The magnitude of the effect is large relative to the other coefficients, indicating an increase in the number challenges by the DOJ of 2.53 for every one percentage point increase in unemployment. The fact that both these coefficients lack significance in the FTC model, but not the overall model, indicates that the significance of economic factors in the initial model are driven largely by the DOJ challenges.

Finally, as expected, the coefficient on the DOJ budget is positive and significant (p=0.001). The magnitude is similar in size to the budgetary effects in the previous two models. An increase in the DOJ budget by one percent is roughly correlated to an increase of .2095 in the number of DOJ merger challenges.

These regressions indicate a variety of things. First, budgets do matter in allowing agencies to do their job. Second, agencies are not immune to external economic factors; in these regressions, the combined merger challenges between the agencies and the mergers challenged by the DOJ seem to be correlated with the unemployment rate and, to a lesser extent, S&P 500 growth. Finally, neither agency seems to be affected by external political factors. These issues will be explored in greater detail in the next section regarding policy implications.

CONCLUSIONS AND POLICY IMPLICATIONS

A. CONCLUSIONS

Using three separate regression models, I assessed the effects of different variables on the number of mergers challenged by both the FTC and DOJ. Specifically, using the number of challenges as the dependent variable, I assembled data on and assessed the effect of the total number of mergers filed, the ideological preferences of the relevant oversight committees in Congress, the political party of the president, S&P 500 growth, the unemployment rate, and the budgets of both relevant agencies.

In the first of these three regressions, I assessed the effect of these variables on the total number of mergers challenged (i.e., the sum of the mergers challenged by the DOJ and the FTC). The overall model was highly significant. There were positive and significant coefficients on the total number of mergers filed, the unemployment rate, and the DOJ budget. There were negative and significant coefficients on S&P 500 growth and the FTC budget.

In the second of these regressions, I examined just the effect of these variables, except the DOJ budget, on the number of mergers challenged by the FTC. In this case, though the overall model was significant, I found that only the coefficients on total mergers filed and the FTC budget were significant; both of these coefficients were also positive. These results indicate that the FTC is relatively independent of political and macroeconomic factors.

In the final of these regressions, I regressed the number of merger challenges filed by the DOJ on the independent variables listed above, except the FTC budget variable.

In this case, I found the overall model to be significant. The coefficients on total number of mergers, unemployment, and the DOJ budget were all positive. The coefficient on S&P 500 growth was negative.

Taken together, these results indicate that merger challenges at the DOJ and FTC are independent of political factors, at least when controlling for the effects that ideological preferences might have on department and agency budgets. Horizontal merger challenges by both agencies and by the DOJ alone seem to be correlated with macroeconomic factors, though not in entirely expected ways. The lack of a significant effect by the external economic factors in the FTC model indicates that the macroeconomic effects in the DOJ model are driving the same effects in the overall regression. These results have a number of policy implications not just in the area of antitrust enforcement, but also when considering the relative independence of government agencies and the role that they can and should play in the federal government.

B. Policy Implications and Discussion

To the voting public, the behavior of regulatory agencies is often depicted as one of two extremes. First, regulatory agencies can be portrayed simply as bureaucracy whose actions are governed primarily by the structure of the agency and career employees who are neither subject directly to election nor congressional or Presidential oversight. Second, regulatory agencies can be portrayed merely as agents of a partisan Congress or the President, unjustly pursuing one set of goals during one administration while pursuing a radically different set of goals during the next.

Does the existence of these possible extremes have benefits and drawbacks in the area of horizontal merger enforcement? Clearly, there are mergers that econometric models can tell us would be anticompetitive. Merger enforcement by the FTC and DOJ should reflect this reality and the relevant decision-makers in the agencies should weigh this evidence in a non-partisan manner. Conversely, even with the evidence available it may be difficult for an agency to assess whether a given merger will "substantially lessen competition, or to tend to create a monopoly;" "contract, combination or conspiracy in restraint of trade;" or represent "unfair method of competition."[52] Given these somewhat vague mandates and the necessarily hypothetical nature of predicting the effects of a merger, there is room for experts at both agencies to be swayed by external factors.

Before assessing the implications of my overall results, it is best to assess the implications for the individual agencies. As shown in the results section, only the total number of merger filings and the natural logarithm of the FTC budget had a significant effect on mergers challenged by the agency. This seems to indicate that the FTC is at or near the independent extreme described above. While political players can still affect agency operations through control of the budget, a change in mergers challenged due to budgetary reasons seems to reflect resource challenges rather than substantive ideological changes. One might think that with a lower burden in filing preliminary injunctions, the FTC would be more easily swayed in pursuing challenges in the first place. This seems not to be the case. Congress, in constructing the FTC, was successfully able to create a non-partisan regulatory agency. Perhaps, by using staggered 7-year terms with limits on

[52] As instructed by the Clayton, Sherman, and FTC Acts, respectively.

party control of the commission, the culture that developed at the FTC is a non-partisan one. In the future, political leaders can use the lessons learned at the FTC to implement this non-biased culture into other regulatory agencies in order to create agencies free of the frequently changing political winds.

While the DOJ, too, appeared to be immune from political factors, both external economic factors–S&P 500 growth and unemployment–had a significant effect on the choice of the Antitrust Division to pursue merger challenges. These two economic effects could be related to the party of the President and the ideologies of the respective House and Senate Judiciary Committees. Incumbents, Republican or Democrat, tend to do poorly in times of low economic growth or decline. These macroeconomic factors may be driving both the ideology of the political players as well as the number of merger challenges pursued by the DOJ. This interaction would explain why political factors do not play a statistically significant role when control for macroeconomic conditions. Unlike the commissioners at the FTC who, once appointed have, set 7-year terms, the appointees at the Justice Department serve at the pleasure of the President. This difference requires means that the Attorney General and the Assistant Attorney General for Antitrust, face more direct and short-term pressures from external circumstances. The negative coefficient on unemployment, for instance, may indicate that high unemployment creates an anti-corporate sentiment among the electorate, resulting in pressures for the DOJ to pursue a greater number of merger challenges. Less straightforward is the inverse relationship between S&P 500 growth and DOJ merger challenges. While the effect is relatively small, it is significant at the 10% level. The positive coefficient on the S&P 500 growth variable may show that positive macroeconomic conditions create conditions in which corporations are more likely to pursue potentially anticompetitive mergers. If so, this result would mean that the DOJ is doing its job by fairly challenging mergers and acquisitions that are anticompetitive. In contrast to this, the positive coefficient on S&P 500 growth may instead indicate simply the *perception* that corporations are more likely to pursue anticompetitive mergers during these periods, causing the DOJ to undertake ill-advised merger challenges that it would not pursue in different macroeconomic conditions. To assess whether corporate behavior or perceptions of corporate behavior affect merger enforcement, further research that compares the expected and actual economic outcomes of mergers filed in times of positive and negative macroeconomic growth would be necessary.

The relative similarity of the overall results to the DOJ results seems to indicate that the DOJ is driving the impact of macroeconomic factors on horizontal merger enforcement as a whole. The peculiar result in the overall model that the FTC budget is negatively correlated with the total number of merger challenges is not as peculiar when seen in the context of the whole model. As briefly discussed in the results section, this unexpected result may instead indicate that, with the DOJ as the driving force behind the results, the coefficient on the FTC budget may simply be moderating the impact the external economic factors have on the DOJ.

These results highlight important differences between the two agencies, but the reasons for these differences are not entirely clear, and the explanations posited above are simply possibilities. These agencies have differing industrial expertise; as a result, macroeconomic factors could affect the two sets of industries differentially, resulting in a differential impact on merger challenges. The differences between the two agencies may also be due to the different thresholds they face for issuing a preliminary injunction. Despite these limitations, it is inarguable that differences remain and policymakers must ask themselves if it is useful for these two agencies to behave differently in the face of external pressures, and perhaps whether it is even useful to have two agencies responsible for horizontal merger enforcement as opposed to one.

It is important to note in the "competition" for merger challenges, these two agencies approach antitrust issues (and horizontal mergers, specifically) from two different perspectives. The DOJ is a law enforcement agency and staffed primarily by lawyers. The FTC, on the other hand, is a consumer protection agency staffed primarily by economists. It is not unexpected that the two agencies behave in different ways when faced with the same issues, and it is not entirely clear what benefit there is in having one agency primarily concerned with executing the relevant antitrust laws and one agency primarily concerned with protecting consumers from anticompetitive practices. While these two missions overlap, research, both anecdotal and empirical, indicates that the behavior of these two agencies is not the same.

This different behavior is not necessarily a bad thing, and the agencies do work together. For instance, they collaborate in creating and distributing the Horizontal Merger Review Guidelines. The competition between the two agencies likely benefits the American public by encouraging each agency to develop better methods of assessing the legality of mergers and acquisitions. In fact, it is just this type of competition that these agencies are trying to preserve in the private marketplace. Despite these benefits, the system as it is currently designed is inefficient. At present, there is no systematic way that the agencies divide the cases between themselves. While there may be general guidelines, there are not specific rules, and the division of cases is often not based on expertise, and it is not consistently based on anything aside from preferences of the two agencies, which often conflict. There must be a consistent way that these merger cases are assigned, not just for the sake of efficiency, but so the relevant congressional committees, the President, and the American people can all understand and assess the roles played by these agencies. These groups might find, in the end, that it *is* useful for there to be two agencies working on the same problems, or they might find that the inefficiencies caused by the overlapping mandates are not worth any benefits that might accrue. Either finding would be useful, but to confidently recommend one route over the other, further research would have to be done at other agencies with similar or overlapping mandates.

Where can policymakers and policy analysts go from here? Much of the research to date appears to be focused, like this paper, on one or two agencies in specific areas. A cross-agency study could use the results of these various studies as a starting point to determine what measurable aspects of an agency make it less likely to be affected by external factors. Similar research could assess whether there are broad differences between other congressional agencies, like the FTC, and their counterparts in the executive branch, like the DOJ. Policymakers could utilize these studies to better create responsible and independent agencies to best serve the public interest.

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