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Meetings, Comments, and the Distributive Politics of Rulemaking

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ABSTRACT

Rulemaking procedures provide interest groups two opportunities to persuade regulators: *ex parte* meetings and public comments. Regulated entities use both avenues more extensively than other groups, but how much do they gain by doing so? By analyzing changes in the stock price of firms in the hours following rule announcements, I study the effect of lobbying on Dodd–Frank implementation at the Federal Reserve Board. I find that meetings and comments were associated with abnormal returns in the tens of billions, yet meetings were worth more. Returns of firms that met or commented were excessive in comparison to baseline expectations and the performance of all their disengaged competitors. When comparing firms that lobby with their most similar competitors, however, only meetings are associated with excess returns. By comparing comment requests to rule texts, I show that policy concessions were both pervasive and correlate with market outcomes. I connect these findings to contemporary debates about the design of administrative procedures and regulatory inequality.

Keywords: Lobbying; interest groups; policymaking; administrative policymaking; rulemaking; financial regulation; event studies; Dodd–Frank

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When Congress delegates authority to write rules governing the economy and society, it inevitably creates distributive problems for regulators to solve. For example, the Dodd–Frank Act tasks the Federal Reserve Board with determining the level of revenue and competition in the market for “debit card networks.” Crucially, it also asks the Board to define *what* a debit card network actually is (76 FR 43415–43416). Visa and Mastercard are two quintessential providers. Their debit card platforms generate revenue by skimming a fraction of all merchant sales transacted on their network (Evans and Schmalensee, 2005). These funds are used to pay consumer and merchant banks to affiliate with their platforms. Visa and Mastercard pocket the “leftovers,” which are worth over two billion dollars per year (Huang and Smith, 2010). The market power Visa and Mastercard obtain through debit card services was a clear concern for Congress in passing Dodd–Frank (156 Cong. Rec. S3588, 2010). But what about American Express, PayPal, or LevelUp? These companies compete in the same market with a slightly different business model. They *directly* mediate debit-like transactions between consumers and merchants, cutting out each party’s respective bank. The ambiguous status of these firms puts the Board in a double-bind where it *must* distribute particularistic benefits and detriments through policy selection. If the Board defines “debit card network” so as to exclude insurgent platforms, they gain the market advantage of being exempt from price ceilings and pro-competitive backstops.¹ To the extent insurgents can expect a gain in market share, the exclusion also harms banks with substantial consumer or merchant debit card revenue. If the definition *includes* insurgent networks, however, then the insurgents face new and burdensome regulations, helping the incumbents. Many regulatory problems are like the debit card regulation in that they superficially involve the application of neutral expertise to technical problems of law and implementation. Yet more fundamentally, the resolution of these issues demands value judgments about which *particular* firms should win and which should lose in the markets of the future.

Although it is apparent that rulemaking creates political problems about the distribution of costs and benefits among stakeholders, exactly how regulators resolve such conflicts remains puzzling. Part of the problem is that it is hard to observe how regulations impact firms and markets. In the case of the debit card regulation, for example, the Board decided American Express, PayPal, and LevelUp *did not* run debit card networks. The outcome was good for the market insurgents, and arguably for competition in general. Yet one might also have concerns. These insurgent platforms are more vertically integrated than Visa and Mastercard. By cutting out the banks, these emerging platforms may someday obtain market power the incumbents could not fathom. Lost debit

¹Indeed, Visa and Mastercard did make this case on the record, as the Board itself noted in its final rule (76 FR 43415–43416).

card revenue for banks might also increase incentives for consolidation in the industry, with negative implications for the stability of the banking system as a whole. Even in a single case, it is not easy to interpret regulatory outcomes as having clear winners and losers, let alone identify proximate causes for these gains. Generalizing across cases multiplies these challenges for a testable theory.

In light of the difficulties of generalizing about regulation, some contemporary scholars have taken a more procedural approach to studying who wins from regulation and why. Most notably, there have been many studies of rulemaking's public comment period (Balla, 1998; Ban and You, 2019; Golden, 1998; Haeder and Yackee, 2015; Libgober, 2020; Yackee and Yackee, 2006). In order to finalize a regulation, agencies must publish an official proposal and consider feedback in the form of written letters. This requirement was made part of the rulemaking process in order to promote better policy that incorporated public expertise and preferences. It is, therefore, the most natural place to expect to find firms and stakeholders seeking and obtaining regulatory benefits from agencies. And indeed, the general findings are that comments do predict changes in regulatory policy, particularly if sent by those with more resources (Balla, 1998; Haeder and Yackee, 2015; Yackee and Yackee, 2006). Yet these studies have not addressed other forms of influence seeking that many would suspect are more influential than comments (Elliott, 1992). In particular, firms and interest groups meet extensively with regulators during the rule development phase and the notice-and-comment period. Since meetings generate sparse textual records and happen prior to the setting of baseline policy expectations in the proposal, existing content-analysis approaches cannot be used to evaluate their significance.

As a new and complementary approach to studying benefit seeking during rulemaking, I offer high-frequency event studies. These studies have several key ingredients. By scraping publicly available meeting logs and comment letters, I identify which firms used one or both of these influence seeking techniques during rulemaking. By integrating Board press releases and server publication times (via RSS and FOIA), I identify very precisely the time at which regulations emerge. Finally, by comparing the minute-by-minute change in stock prices of firms that lobby in each fashion to their most similar competitors, I identify differential effects that are attributable to regulatory participation. The determination of which firms are most similar to one another relies on an original quantitative analysis of the propensity of firms to engage in regulatory lobbying. This analysis reveals that economic resources, legal sophistication, and the extent of prior investment in political influence all positively predict regulatory lobbying. Analyst coverage, a form of media accountability, is associated with a decreased tendency to participate.

By integrating these many and varied data streams, I present new evidence that regulatory lobbying has a substantial impact on the distribution of costs

and benefits allocated through rulemaking. Firms that met with the regulator before the proposal of a regulation experienced excess returns worth tens of billions of dollars in the minutes and hours after these proposals became public. Compared with their most similar direct competitors that did not meet, I show firms that met *still* experienced excess returns, albeit to a smaller degree. Applying a similar analysis to commenting at finalization, I show that the announcement of final rules generates smaller and less consistent evidence of regulatory benefit for commenters. Closest competitors that do not comment receive nearly identical market reactions following final rules as those that do comment. By comparing comment requests to rule texts, I show that policy concessions were both pervasive and predictive of positive changes in stock price. A variety of other placebo, falsification, and robustness tests further bolster the analyses. Nevertheless, the observational setting requires a cautious causal interpretation. While there is little reason to doubt that rule announcements cause positive stock market reactions for firms that seek influence through meetings and comments, the inference that these announcements were positive to such an extent *because* the firms met and commented is more speculative, although plausible. Given data availability limitations, the argument for this interpretation depends in large part on theoretical and qualitative analysis.

Assuming one were to grant the naive causal interpretation that differing lobbying actions cause differing regulatory outcomes, what would account for the apparently higher ability of meetings to lead to distributive benefits than comments? Many explanations are possible. Some might argue that it is because humans are typically less effective at learning from static written communications than interactive oral presentations. Others might emphasize the greater potential for interest groups to use meetings to play on officials' emotions or self-conceptions, for example their feelings of sympathy, inferiority, or fear (Kwak, 2013). Without denying these and other possibilities, I develop an institutional explanation rooted in bureaucratic politics (Carpenter and Moss, 2013; Croley, 2008). A primary reason for the effectiveness of meetings at shaping an agency's proposal is that they target the part of the agency hierarchy that has discretion at the time when it is most available. Comments draw from a smaller pool of available discretion, and are less likely to reach the key decision-makers who control it.

Rulemaking Discretion and the Possibility of Distributive Politics

It is commonly said that delegated policymaking poses a principal-agent problem. Yet it is neither necessary nor obvious that this principal-agent problem leads to distributive politics. Traditional political and legal theory supposes that delegating statutes act like complete contracts between legislatures and

bureaucratic agencies (Stewart, 1975). While law may permit agencies to take a range of possible actions, depending on how facts or events unfold, the chosen actions inevitably conform to the legislative intent. Neutral competence is a key notion that allows this perspective to avoid addressing the uncomfortable incentives of agencies to deviate from instructions. It is not, however, the only means. Perfect and costless judicial enforcement or Congressional oversight would prevent agencies from shirking or deviating, even if they might want to. Without real agency discretion over policy outcomes, agency-made regulation cannot lead to distributive politics. All the interest group conflict should resolve itself in the legislature, *before* it reaches the agency's doorstep.

Yet even as early as Herring (1936), political scientists have persuasively argued that legislative contracts are incomplete, expertise is not neutral, and giving agencies authority does create real moral hazard. Unless Congress can somehow find an agent with perfectly aligned preferences (Bendor and Meirowitz, 2004), the incompleteness of legislative instructions inevitably allows for policy slippage, which creates the possibility of interest group politics around the allocation of the agency's policy slack. One can expect the amount of real agency discretion to increase to the extent that writing legislation is hard, Congress is short-sighted, court enforcement is costly or conflicted, the consequences of breach are insufficiently severe, or agency actions and information are hard to observe. As society and the economy grow more complex, one might expect agencies' policymaking slack to increase. Indeed, the post-New Deal Congress has invested expansive authorities in agencies. These discretion enhancing features are especially prevalent in the financial regulatory space (Romano, 2014). The Dodd–Frank Act contains over 300 distinct rulemaking requests, on issues ranging from executive pay, to home mortgage disclosures, to capital adequacy standards, and so forth. It also creates open-ended authorities that could lead to any number of regulations, for example the Consumer Financial Protection Bureau's instruction to identify and prohibit "abusive consumer financial practices."

What controls the use of discretion in agency implementation? Some accounts emphasize the extent to which the agency's own independent policy preferences matter (Gailmard and Patty, 2007). Few would doubt that various kinds of agency bias can and do greatly influence regulatory outcomes. Yet agency preferences are an incomplete explanation. If the agency always and only sets out to vindicate its own zealous policy preferences, there is as little reason for influence seeking as the complete-contract perspective would have it (Libgober, 2020). What's the point of lobbying an agency if its staff are just going to do what they are going to do? In order for distributive politics to emerge in the making of regulation, interest groups must have goods that they can provide agencies, in exchange for which the agency selects different policies that they would in the absence of those goods. The competition between various parties to provide these persuasive goods is what leads to distributive

politics in rulemaking, because it is the rare policy that is simultaneously best for all.

What can interest groups provide agencies in order to persuade? Prior scholarship suggests many answers. I shall describe just a few. Croley (2008) says information is the “currency” of administrative policymaking, as “those with the most information, with the most credible and verifiable information, will have a greater opportunity to influence.” Agencies are not, of course, interested in information for information’s sake. They want to understand the policy consequences of their actions: will the regime be effective, how costly will it be to administer, will it actually lead to better outcomes, and so forth? More cynically, but no less plausibly, agencies want to understand the *political* consequences of their actions: how much blame, credit, support, or opposition is likely to follow various courses of action? For this reason, when rulemaking scholars think of “credible” information, some might have in mind “commitment to fight” rather than “reproducible, causally identified research” (Gordon and Hafer, 2005). The classic literature on iron triangles argues that agencies seek out particular, narrow interest groups to obtain a necessary base of political support on Capitol Hill. While political support is a valuable concept, the notion that it must be narrow may be a result of looking at more dysfunctional agencies (Huntington, 1952). More energetic and forward-thinking agencies are likely to court multiple interest groups simultaneously so as to create a thicker market for political support. In this context, a reputation for impartiality is crucial (Huber, 2009).

It is worth emphasizing two additional notions of what interest groups can provide agencies in order to change policy. First, agencies may respond to the preferences of interest groups because that is how they understand the rulemaking task, just as legislators engage in many forms of service with limited direct benefit because they see that as their job. As Wilson (1989) says, for agencies, the mission matters, and enacting the “popular will” or responding to “public preferences” is likely viewed by many rulemakers as a means of achieving the mission. If that is true, signals about public preferences alone might constitute a “good” sufficient to motivate a change in policy. For scholars who balk at the notion that preferences from concerned stakeholders could emerge as an inherently valuable good to regulators, one might also invoke the perspective of McCubbins *et al.* (1989). For those in the structure-and-process school, agencies implements internal processes that *force* their employees to care about stakeholder preferences. They adopt such internal procedures in order to avoid future sanction through courts and Congress. These internal processes may be administrative, for example requirements that comments are handled in a certain way, that studies of such a type be produced prior to proposal, that a certain number of meetings with the public be held. They may also be cultural, involving norms of how employees talk about stakeholder engagement. In the short-term, agency staff care about public engagement

because the agency makes them care about it, while the agency makes them care because it is in the agency's long-term strategic interest to do so.

Benefit-Seeking During Rulemaking: Dodd–Frank and Beyond

The previous discussion of exchanges between interest groups and regulators during rulemaking has focused abstractly on the necessary conditions for distributive politics to emerge. It has provided less concrete detail on the kinds of concessions interest groups are seeking and receiving. There are fewer discussions of this in the literature (although see Gordon and Rosenthal, 2016), despite its importance and the unique opportunity comment letters provide to directly observe information flows between firms and officials. For this reason, I describe here some of the benefits sought in the public comment letters from publicly traded firms on Dodd–Frank regulation.² Regulations offer a heterogeneous bundle of potential costs and benefits to firms. In turn, firms seek to shape the regulator's choices in order to create idiosyncratic beneficial exposure to a regulatory regime, eliminate idiosyncratic harmful exposure, and also to change the balance of expected costs and benefits within and across industrial sectors.

The introductory vignette highlights two common asks from firms during Dodd–Frank rulemaking. Many firm requests are like those of Visa and Mastercard in that they want the regulator to treat their competitors the same as the regulator intends to treat them. Others are like the requests of PayPal or American Express: they want the regulator to treat them differently than their competitors.³ Still other firms want a special exemption, without any mention of their competitors, although these presumably would exist as well.⁴ Firms may even rally to the defense of their competitors, in cases where they expect a smaller industry pie to result in less revenue for themselves.⁵ Sometimes firms want policies to be more specific so that it is easier to demonstrate

²While there are important qualitative differences between what occurs in meetings and comment letters, the benefits sought do not appear to be substantially different, at least on the basis of this author's own impressionistic analysis of meeting logs.

³"The overwhelming majority of our business is conducted through eight separate and distinct community bank subsidiaries, the largest of which has total assets of approximately \$16 billion. Accordingly, we question whether the requirements in the proposed rule should be the same for a "Main Street" commercial bank as for a much larger, internationally active financial services company with extensive derivatives and capital markets operations" (Zions, Apr. 12, 2011, p. 2).

⁴"[C]onfirm that credit funds are not subject the Funds Restrictions by creating a new exclusion from the definition of 'covered funds'" (Goldman Sachs, Feb. 13, 2012, p. 4).

⁵"Though our bank is presumed to be exempt . . . we are deeply concerned that the networks in which we participate may not be able to differentiate our customers transactions . . . As a result, the revenue we earn on debit card transactions could be substantially affected" (Summit Bank & Trust, Dec. 16, 2010).

compliance.⁶ Others want policies to be more flexible or even vague, so that compliance is subject to agency discretion and future regulatory negotiation.⁷ In cases where application of the rule depends on a formula, firms may ask for beneficial modifications in the way this formula is calculated.⁸

Many firms participating in Dodd–Frank rulemaking sought to slow down the implementation process. They asked for delays in the implementation or effectiveness of the entire rule,⁹ or delays for specific parts of the rule, or specific classes of firms.¹⁰ There are many reasons why delay is valuable. Regulatory compliance is costly and the need to rush into compliance still more so. In the case of financial regulation, practices that will eventually be prohibited may yet be very profitable in the present. If the industry expects more favorable winds on Capitol Hill in the future, or additional legislative action on the topic in the future, rules delayed may become rules never made. A frequent (and often) granted request is for agencies to hold open the comment window to give firms more time to submit their letters. One has the impression that, at times, these requests may be a stalling tactic.

Particularly bold firms may ask the agency to withdraw the rule. Sometimes they mean withdraw forever,¹¹ other times they mean until a sufficiently good proposal emerges,¹² even in cases where either action would flout Congressional intent and the delegating statute. While one might think such arguments could never work, there are examples that might suggest otherwise. Some of the strongest medicine in the Dodd–Frank Act was a requested rule on executive compensation practices. The law required the financial regulatory agencies to make a proposal within nine months of Dodd–Frank’s passage. These rules were proposed just before this statutory deadline, but were subsequently withdrawn,

⁶ “[E]xpand or clarify the riskless principal exemption in the Proposed Rule to clearly permit customer-driven foreign exchange forwards” (AMEX, Feb. 9, 2012, p. 4).

⁷ “The Board should modify its proposed definitions to preserve its discretion to reach appropriate decisions — particularly its proposed definitions of “contractual obligation,” “liquid asset,” and “illiquid fund” (SVB, Jan 10, 2011, p. 1).

⁸ “We believe that the size indicator is effectively weighted by more than 20% in . . . the GSIB calculation since many of the metrics used to measure the other indicators are also strongly correlated to or a function of a bank’s size. To compensate for this undue influence of size on the overall calculation, the weighting applied to the size indicator should be reduced from 20%.” (Wells Fargo, Apr. 2, 2015).

⁹ “Because many of the mandatory rule provisions are significant, industry-changing, and will require a great deal of creditor resources, we urge the Agencies to set an effective date for the Proposal that will provide creditors with the maximum time available. Wells Fargo therefore recommends an implementation period for the Proposal of the full 12 months” (Wells Fargo, Oct. 5, 2012).

¹⁰ “A deferral would enable the Federal Reserve to consider whether GECC has been successful in implementing its Exit Plan” (GE Letter, May 4, 2015, p. 3).

¹¹ “PlainsCapital Bank respectfully and strongly requests that the Proposed Rule be abandoned in its entirety and never adopted.” (PlainsCapital Bank, Feb. 14, 2011, p. 2)

¹² “[I]t would be ideal if we could go back to square one and come up with a solution that is fair to all parties.” (First Interstate bank, Feb. 22, 2011, p. 4)

and have *still* not been repropose almost a decade after Dodd–Frank. As the fable goes, it’s hard to win the lottery if you don’t buy a ticket. Perhaps requests to withdraw regulations are not so pointless as they appear, given the immense rewards if granted.

As these examples show, firms request a diverse range of benefits during rulemaking. Although regulatory policies are framed in the language of general applicability, they at times can deliver particularized benefits and cost *in effect* because such a small number of firms fit the benefited (harmed) category. Firms regularly seek benefits at this narrow level. At other times, firms request policy changes that would apply to all, for example, a delay in a rule’s effective date. The more general the applicability of the policy change, the greater the ability of other firms to free-ride. Yet the incidence of a universal change is uneven, because firms are all different from one another and have differing baseline exposure to the regulatory policy at issue. As a result, even “universal” changes may be particularly salient for some firms, and success or failure in that effort particularly affect their expected future profitability.

Hierarchical and Temporal Aspects of Agency Discretion

The discussion thus far has focused primarily on the demand side of regulation, elaborating why firms would obtain concessions through the rulemaking process and why those concessions might have value for firms, both in aggregate and as individuals. What remains unexplained is why one should expect meetings and comments to have different abilities to produce returns.

In order to understand who wins and why during rulemaking, I argue that one must consider who makes policy during rulemaking and how. In particular, one must recognize the unequal distribution of policymaker discretion within agencies and over time. Agencies generally sub-delegate rulemaking responsibility to departments and teams within their organization. This sub-delegation creates a further principal–agent problem, which implies that the agency managers are no more able to get the rule they would most prefer than Congress is. Moreover, time and resources for making rules are not infinite, which puts pressure on the agency and the rulemaking team to narrow the set of possible decisions as soon as possible and also to avoid revisiting prior decisions even if they later learn that they have gone down a sub-optimal path (Lindblom, 1959). Earlier in the rulemaking process, the agency has more flexibility and more actual discretion to take a rule in different directions. The ones who exercise this discretion and chart the future path of the regulation are not necessarily the agency heads. Indeed, the leaders of a rulemaking team are more likely to be division or departmental chiefs or deputies (“mezzo-level” bureaucrats, in the terminology of Carpenter (2001)). During the Board’s rulemaking, meetings during rule development provided access to these key

decision-makers when their actual discretion was largest. Comments come later, when discretion is smaller. These messages also would have faced more difficulty reaching the right organizational level. Hence, one should expect meetings to more predictably lead to more benefits, and more particularistic benefits, than comments do.

The theoretical perspective emphasizing the unevenness of discretion within agencies and over time may be illustrated by analyzing aspects of the rulemaking process around the debit card rule. From a standpoint of procedure, the rulemaking process was typical.¹³ According to the Board's published procedures, the process begins with the formation of a rulemaking team (Federal Reserve Board, 1979). In the case of the Durbin Amendment, the Division of Reserve Bank Operations and Payment Systems (DRBOPS) was assigned the task of writing rules, under the direction of Louise Roseman. Roseman, as well as senior staff attorney Dena Milligan and senior economist Mark Manuszak, attended over half of the meetings with interested stakeholders during the development of the debit card rule, reflecting their important role in make the rule and understanding the policy issues at stake for the Board. For comparison, a much smaller number of rule development meetings were attended by agency managers such as Bernanke (1), Yellen (0), or Tarullo (2).

After a team is tasked with writing rules, it sets about defining the set of possible policy solutions (Environmental Protection Agency, 2011; Federal Reserve Board, 1979). The enabling legislation of the debit card regulation asked the Board to ensure the fees that consumer banks earn from networks are reasonable. The language is amenable to many interpretations. Some sense of the diverse forms acceptable policy could have taken emerges from the detailed studies and letters the agency received in the final month before proposal. One University of Chicago economist argued that the regulation could simply develop standards for the debit card networks to use in determining if the level of fees in the market as a whole was fair (Murphy/Bank of America Letter, Nov. 23, 2010). Others argued that the Board could decide what sorts of issuer costs were legitimate and allow the networks to set rates accordingly (Morrison and Foerster Letter, Nov. 5, 2010). The alternative that merchant and consumer groups wanted was a price ceiling kept as close to zero as possible (Merchants Payment Coalition Letter, Nov. 2, 2010). Given the time and resource constraints, the rulemaking team could not pursue each of these ideas equally.

The form of policy that the staff selected was a rigid price cap, initially set at 12 cents per transaction. During the Open Board meeting where this proposal was approved, many of the governors expressed concern that the staff

¹³In terms of substance, the rulemaking was atypical for the Board, involving a new regulatory task of above-average policy importance. If anything, both factors lead one to expect more active management by the agency heads, thus making the observed distribution of authority *more* remarkable.

had selected a price cap. “[C]an you take us through why the staff proposal has us in the price-setting business?” Governor Warsh asked. Questions from Bernanke, Yellen, and Tarullo also reflected concerns about disruptions to functional markets that might come about through price-setting. Despite the Board’s misgivings, which were later compounded by a fire storm of political blowback from the banking sector, including 11,000 comments,¹⁴ Capitol Hill hearings, and a repeal bill that came within inches of passing the Senate, the form of the regulation as price-cap was maintained in the final rule. In other words, this important act of discretion made by staff in the earliest moments of rule development was not overturned. This is not to say that the hard questions from agency managers, the comments, or the hearings had no effect. There was a significant increase in the price ceiling, from 12 to about 21 cents per transaction. Still, what the episode highlights is that allocations of agency discretion made early in rule development rulemaking by the staff may be preserved in the proposed and final rule.

A major reason final policy remained close to the initial proposal was because the staff had invested so many of the agency’s resources in developing and rationalizing the proposal’s policy design. Indeed, the staff made significant investments in a price cap even before it began receiving the policy briefs described above. One obvious example of these investments was the decision by the staff to conduct a survey of 131 banks directly subject to the regulation between September and October of 2010. The goal of the survey was to determine what their actual costs in providing debit card services were. The \$0.12 figure was pulled directly out of the survey (reflecting the median issuer costs) and so too was the \$0.21 number (reflecting the 80th percentile of issuer costs). The costs involved with designing and implementing this survey, as well as the valuable data it could provide to a certain kind of answer, gave an important justification for sticking with this kind of answer, even if the agency managers would have preferred a different kind of policy.

The form of the policy was an important discretionary choice made by the rulemaking team, but it was not the only one. There were countless others, for example, whether to acquire data on firms nominally exempt but likely to be indirectly affected by the regulation, or how to accommodate the Dodd–Frank Act’s instruction to “consider the similarity and differences between debit cards and checks” in setting the appropriate fee. From presentations attached to meeting logs, correspondence, and regulatory matter published later, it is apparent that interest groups sought to provide information that would push the staff to adopt different solutions to the regulatory problem along each of these dimensions. By the time a rule is proposed, many decisions will have been made that the rulemaking team and the agency managers will find difficult to walk back. Hypothetically contentious issues that are resolved prior

¹⁴The vast majority of these were from letters, however.

to notice, but do not become the subject of debate during notice-and-comment, are unlikely to be revisited.

If these theoretical claims about the time and location of discretion within agencies during rulemaking are accepted, one should expect meetings that occur post notice to have less influence than those that occur before. Moreover, one must worry that comments, which are a more widely accessible means of participation than meetings, are not an equally reliable channel for influence as rule development meetings. Comments come in at a time when the agency has given up much of its discretion. The information contained in these letters also probably has more difficulty reaching the officials with real authority. Indeed, this is particularly true for rules that receive many comments; the leaders of a rulemaking team have too many responsibilities to read hundreds or thousands of pages of dense written material contained in these letters. Instead, what agencies typically do is have staff read comment letters and group them by issue themes (Federal Reserve Board, 1979). At the Board, this responsibility often fell to more junior attorneys. In some agencies, these readers are often independent contractors (Stoll, 2010). Summaries of the public feedback are likely to receive detailed consideration. Comment letters deemed important enough to merit attention by more senior rulemaking team members with more authority are also likely to be read carefully. Nevertheless, the barriers in terms of actually communicating one's message to the right official are higher with comments than with meetings. Probably, one's message is more likely to be heard if it is echoed by one's peers and competitors, so we should not expect comments to be as fruitful a means of *particularistic* benefit seeking, even if it can produce benefits.

Event Study: Design and Implementation

To analyze the differential impact of meetings and comments on regulatory outcomes, I implement the following design. At a high level, the approach is analogous to other matching-based studies that analyze, for example, the impact of job-training programs on earnings or employment (e.g., Dehejia and Wahba, 1999). Outcomes Y_{it} for individuals i at times t are to be compared depending on the actions τ_{it} undertaken. Here, τ_{it} could stand in for several distinguishable actions of interest, including whether the firm i commented on rule t (τ_{it}^C), attended a meeting on rule t prior to the notice of proposed rulemaking (τ_{it}^-), attended a meeting on rule t during the notice and comment period (τ_{it}^+), or took any of these actions (τ_{it}^*). Here I shall treat all τ_{it} as dichotomous indicators ("lobbied"/1 or "did not"/0), although in the Appendix I include regressions that treat τ_{it} as count data. The primary individuals of interest are publicly traded firms that engaged in any form of regulatory lobbying. The primary outcome of interest is the change in their stock price

after Dodd–Frank regulations are announced. Using these data, I can test the hypothesis of no systematically higher returns for firms that engage in any kind of lobbying. Formally,

$$H0 : \mathbb{E}(Y_{it} \mid \tau_{it} = 1) = 0$$

This hypothesis is plausible, given the market setting, and also of theoretical interest, given prior skepticism about whether regulatory lobbying accomplishes anything. However, invalidating it provides limited evidence of particularistic benefit through lobbying. To probe the distributive consequences of regulatory participation more deeply, I also evaluate the difference in average outcome between the firms that lobbied and those that plausibly might have. I constitute this counterfactual comparison group by considering all direct competitors of firms that lobby and also focusing more narrowly on only those most similar firms according to background covariates that predict regulatory lobbying. Formally, I seek to estimate linear equations such as the following:

$$Y_{it} \sim \text{average returns} + \beta\tau_{it} + \gamma \cdot \text{controls} + \text{noise}$$

where the controls may be the same covariates that I use for matching, or in the alternative rule or firm fixed effects.¹⁵ The key null hypothesis to test is

$$H1 : \beta = 0$$

which implies no differential returns through participation. This formal approach to estimation and testing is largely reserved for the Appendix; here, I favor graphical illustrations of average returns by treatment status. As becomes clear from examining Figures 3 and 4, the fact that Y_{it} is a price change allows one to interpret β as a difference-in-difference estimate comparing the price of firm stocks in a treatment group and a control group before and after a regulatory announcement.

It is also possible to think of τ_{it} as a vector of possible actions $\langle \tau_{it}^-, \tau_{it}^+, \tau_{it}^C \rangle$ rather than as a single action. In this case, β is also a vector. Its components would indicate the extent to which forms of regulatory participation are complements or substitutes.

Market Outcomes

Certain aspects of the high-level sketch require more unpacking. This is particularly true of the outcome variable. Crucially, rules are not announced at

¹⁵There is no evidence that any firm has inordinately high returns following regulatory announcements, so including these is not well motivated but presumably harmless. The rule fixed effects aim to control for the tendency of some regulations to produce inordinately strong movements on all firms, and captures the “general impact” of the particular regulation on firms.

one single point in time t . They are proposed at one time t_p and then finalized at another time t_f .¹⁶ Therefore, since there are two kinds of announcements, one should really have in mind *two* separate panels, one for the proposed rules and another for the final rules.

Similarly, the change in stock price following an event *also* does not happen at one single time. Prices are constantly in flux. If one looks at the price change after 1 minute ($dt = 1$), or 20 minutes ($dt = 20$), or 3 hours ($dt = 180$), one would generally estimate different price changes following an event t . Over similar time horizons, these outcomes are usually highly correlated, yet they differ. Analytically, I approach the multiplicity of potential time-deltas dt as one might address any data set that offered multiple proxies for one's primary outcome of interest. One hopes that the proxy one chooses does not greatly influence the conclusions, but if one must choose one tries to be principled about the trade-offs. Generally, a smaller dt is preferred because it poses less risk of confounding due to other contemporaneous events and attenuation due to background noise. On the other hand, real markets have frictions, and an overly short horizon may attenuate effects if the market has not fully processed all the newly available information contained in a regulatory announcement. Where the analysis requires fixing one specific dt , I focus on the one hour time domain as a reasonable compromise.

Another set of issues about outcomes concerns how to actually measure returns. Here, I use simple, standardized returns. In other words,

$$Y_{it}^{dt} = \frac{P_{it}^{dt} - P_{it}^0}{\sigma_i \cdot \sqrt{dt}} \quad (1)$$

where P_{it}^{dt} is the price dt minutes after the event and σ_i is the minute-to-minute volatility of i . Some readers who are less familiar with financial econometric techniques might wonder why I standardize my outcome variable. Standardization is necessary to deal with the substantial heteroskedasticity of returns (i.e., "volatility"). Failure to adjust for the unequal volatilities of assets implicitly overweights more volatile stocks and underweights less volatile ones. In the Appendix, I include the results with a variety of other approaches to calculating returns. In particular, I include parametric measures with two separate market controls and also more sophisticated non-parametric measures, which are more state-of-the-art as they address many potential pathologies with intra-day returns. Because the conclusions are robust to the calculation method one chooses, I focus here on the simplest formula in (1).

¹⁶Technically, this is also an oversimplification. Rules can be finalized without a proposal or be proposed without being finalized. There are also interim final rules that finalize some features of the regulation but propose others, and occasionally multiple final rules may emerge after a single proposal, sometimes with and sometimes without a new commenting docket. Characterizing a rule as proposed or final, and also sequencing these actions, is sometimes subject to interpretation.

Finally, there is the matter of identifying *when* these regulatory announcements occurred. Particularly in the within-day setting, precise identification of announcement time is key. The announcement time I focus on is the moment when the Federal Reserve's press release about the rule or proposal appears on the internet. I identify this instant through a FOIA request and by scraping server imprinted time stamps from the Board's RSS feed. Sometimes, but not always, the text of the press release indicates when it was scheduled for publication. Whenever present, this time agrees with the time I attribute. Moreover, based on my conversations with financial reporters, the time of the press release is a very good proxy for when news of the regulation should start hitting the market. If a reporter obtains early access to the rule from the Board's press office, they are only allowed to publish stories based on this information after the press release emerges. For this reason, a glut of news articles often appears a matter of seconds after the press release is issued. Unfortunately, not all rules receive press releases published during trading hours. In total, I was able to identify the precise announcement time of 52 proposed rules and 37 final rules. There is no apparent pattern to the timing of releases within the day (see Appendix Figure A1).

Lobbying Actions

As Krawiec (2013) notes, records about those who meet with regulators during the rule development stage are traditionally inaccessible. Given claims of excessively cozy relationships between banks and regulator following the financial crisis, however, many of the regulatory agencies made a commitment to increased transparency about their meetings in implementing Dodd–Frank rules. While agencies records are never as detailed as researchers might wish, the Federal Reserve made a particularly (and unusually) strong push to require “all staff members, not just senior officials, to keep track of every meeting” and to “routinely” release these logs on their website.¹⁷ Indeed, I was able to scrape 904 meeting logs from the Board's website. The first meeting occurred three days after Dodd–Frank's enactment, and the last occurred in April 2018.

Figure 1 is an example log. Board meeting logs are remarkably detailed about *who* attended. Unfortunately, they are vague about what the interest group actually says. Worse, they often fail to explicitly identify the rule that the meeting relates to. The example log does not mention the debit card rule, rulemaking docket R-1404, or any other standardized identifier. Instead, it uses the phrase “interchange fee provisions,” which is dispositive but only for those familiar with the Board's rulemaking. Unfortunately, key phrases are also sometimes ambiguous. “Enhanced prudential standards” is a term that relates to many rulemaking dockets, so attribution depends on other

¹⁷<https://www.nytimes.com/2010/08/14/business/14transparent.html>.

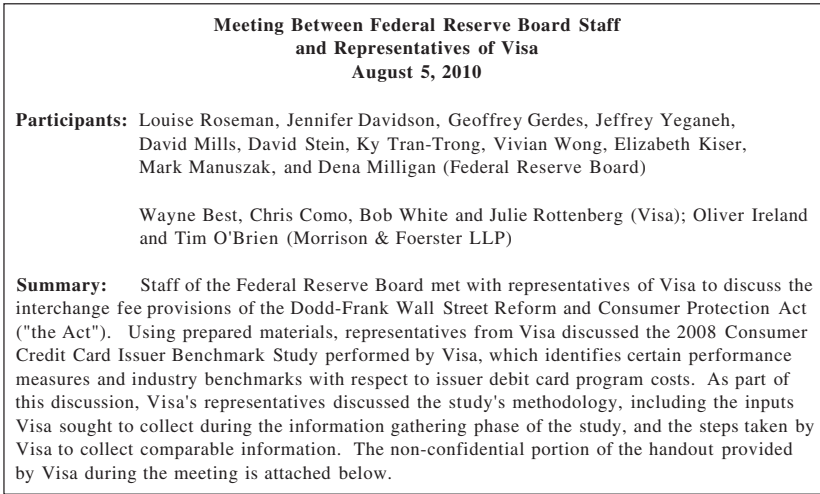


Figure 1: Example meeting log.

clues such as the meeting's date, descriptions of stakeholder outreach in rule preambles, and the other key phrases that the meeting log contains. Matching logs to rules was a substantial human coding task in its own right. In total, 770 logs were matched to at least one rule. Identifying the stock symbol of organizations in the meetings was also a substantial undertaking, and not without its interpretive difficulties.¹⁸ Five-hundred and eighty four logs were matched to at least one publicly traded company. Some logs involved multiple companies meeting with regulators, possibly involving multiple rules. My final data set includes 614 meetings by publicly traded companies during rule development, 643 meetings during the notice-and-comment period, and 117 meetings after finalization.

Board practices for organizing its comments are more consistent than meetings, so acquiring comments and associating them with particular rules is straightforward. In total, I scraped 7,709 comments and identified 736 as sent by one or more public companies or their wholly owned subsidiaries. As has been noted elsewhere (Kerwin and Furlong, 2011), there is substantial variation in commenter attention across rules. Generally, the typical comment is on a small number of rules with relatively high salience for ordinary citizens or professionals, while most rules gets no comments. The skewness of participation

¹⁸The most important of these interpretive questions is whether to attribute a meeting with a private company such as GE Capital to its publicly traded parent. The same attribution question can also arise with respect to comments. I always resolved such ambiguities in favor of attribution.

patterns makes it hard to say what the “representative” or typical rule/comment even is. Nevertheless, as Appendix Figure A2 shows, the bias in attention for publicly traded companies is similar to the bias of all commenters. There is no evidence that publicly companies sort themselves into different rules than other companies or commenters.

Matching Nearest Competitors

The data on meeting and commenting identifies a set of publicly traded firms whose outcomes are of interest. Because of the market context, there is one natural benchmark against which to compare these returns: 0. As the placebo tests later show, if one looks at average returns for any set of firms at random times, they are distributed normally around 0. Showing that regulations systematically benefit or harm firms that lobby, in the view of markets, would not be terribly surprising, since regulatory exposure is an important reason for lobbying in the first place. The direction of impact is an interesting question, however, as some theories would make strong predictions about these effects (e.g. Stigler (1971) would lead one to expect a positive reaction). Nevertheless, a more useful benchmark for distributive politics is the outcomes of similar firms that potentially *could* have participated. At least since Truman (1951), political scientists have dealt with the problems associated with defining and identifying potential interests. I would not deny the difficulties or claim a perfect solution. Still, in important policymaking contexts where natural or designed experiments are unlikely, devising reasonable approaches or assumptions are necessary if one wants to have any meaningful evidence.

Here, I focus on comparing the outcomes of *competitors* to the firms active in Dodd–Frank rulemaking. Formally, let \mathcal{A}_t be the set of firms that lobbied the Board about rule t ,¹⁹ let $\mathcal{C}_t(i)$ be the set of competitors for each firm i that lobbied, and $\mathcal{M}_t = \cup_{i \in \mathcal{A}_t} \mathcal{C}_t(i) \setminus \mathcal{A}_t$ be the matched set for rule t , which contains all the inactive competitors of firms that lobbied. Pooling \mathcal{A}_t and \mathcal{M}_t across all rules, one obtains the first set of matched units ($\mathcal{U} = \bigcup_t \mathcal{A}_t \cup \mathcal{M}_t$). Operationally, I associate firms with their competitors by relying on data from Morningstar, which identifies this connection between firms using a proprietary industrial classification system built from analyzing public documents such as 10-K reports and also quantitative metrics such as market capitalization. These matches already constitute a plausible control group that does not significantly differ along any of the covariates I show are predictive of rulemaking participation (see Figure 2).

While identifying the competitors of active firms picks out firms with *stakes* in the outcomes of rulemaking, one might still worry that some of these competitors lack capacity or motivation to participate in the process, or for

¹⁹ $\mathcal{A}_t = \{i : \tau_{it} = 1\}$.

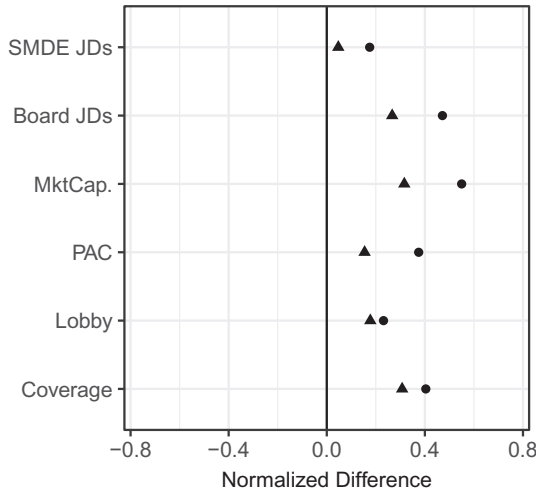


Figure 2: Covariate balance (Love plot).

some other reasons are just not close enough. For this reason, I refine the initial set of matched units \mathcal{U} to include only the most similar competitors in terms of covariates associated with rulemaking participation (\mathcal{U}^*), where similarity is defined using the Mahalanobis distance metric. What factors are these? They include the firm’s market capitalization, the amount of lobbying spending between 2008 and 2010, the amount of PAC spending between 2008 and 2010, the number of JDs serving on the firm’s board of directors and in upper level management, and the number of equity analysts covering the firm.²⁰ To my knowledge, this effort represents the first use of matching methods in the study of rulemaking, and also to model the propensity of firms to participate in lobbying in this important forum.

In light of the novelty of this enterprise, it is worth motivating the variables selected, mindful of course that the question of why firms lobby is too large to do much of any justice to here. Presumably, the reasons for focusing on resources and political investment are intuitive: participation takes resources, and firms that invest in multiple for a prior to passage are more likely to invest post implementation. The JD variables reflect ideas in the literature on bureaucratic or organizational politics. In particular, the training and professional expertise of organizational managers are known to shape what organizations value and the choices they make. The more central lawyers

²⁰Market capitalization data is from Morningstar, political spending from OpenSecrets, Coverage from WRDS’s IBES database, and the lawyer data from BoardEx.

are as decision-makers in the firm, the more one should expect the firm to have familiarity with rulemaking processes and to consider participating in rulemaking a priority. Having JDs in positions of authority may also reflect more extensive regulatory exposure and deeper ties to regulators. The coverage variable is included in the analysis not so much because it is expected to predict participation, but because it is potentially important for the tendency of the market to react to news about this firm.

Table 1 presents a model of the propensity to participate in any fashion in the making of Dodd–Frank regulation at the Board using logistic regression.²¹ As the distribution of all covariates is skewed, the regression reflects logged explanatory variables. The units of observation in the regression are all actively engaging firms and their competitors (i.e., \mathcal{U}). As expected, the background covariates significantly and positively predict regulatory lobbying participation.

Table 1: Logit model of the propensity score.

	τ_{it}
Lawyers in management	0.498*** (0.107)
Lawyers on board	0.339*** (0.107)
Market cap.	0.147** (0.067)
PAC spending	0.160*** (0.018)
LDA lobbying	0.043*** (0.014)
Analysts covering	-0.358*** (0.087)
Constant	-3.413*** (0.644)
N	5,877
Log Likelihood	-2,807.092

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

²¹One might propose, in the alternative, a separate logistic regression for each rulemaking event t . The key difficulty is that the number of active firms on most rules is in the single digits, so modeling the propensity rule-by-rule results in inconsistent regressions. One could also consider separate models for each regulatory action τ_{it} . The main argument against is that it entails significant increase in analytical complexity, both in terms of implementation and communication. Yet the matches would inevitably be similar due to the high correlation between forms of regulatory lobbying.

The only exception is the analyst coverage variable, which is significant but negatively related to participation.²²

With assurance that these covariates are predictive of regulatory engagement during rulemaking, the matching exercise is straightforward. I implement nearest neighbor matching with replacement using the Mahalanobis distance metric. Importantly, the panel structure of the data makes it so that the best available match for firm i might be j on rule t but j' on rule t' . For example, Bank of America is the best match for JP Morgan on the Truth in Lending Rule, but Citigroup is the best match on the High-Risk Mortgage Appraisal rule. Of course, there is a distribution in match quality as measured by Mahalanobis distance. An example of a match from the top-quintile would be Zion Bancshares and Fifth-Third Bank, two large (if regional) American banks. An example of a match from the bottom quintile would be the Spanish multinational Banco Santander and Westpac Bank, Australia's fourth-largest bank. Examples of more middling matches include Capital One Financial and Discover Financial Services, as well as FB Financial and People's United Bank. Figure 2 shows the aggregate quality of the matches, with no significant differences between treatment and control. Appendix Table A1 describes the GICS industry group composition for all firm-rule pairs. Since the source of this industry group classification is different than Morningstar's, the balance observed here is also reassuring.

Results

Figure 3 shows the average standardized return for various groups of firms following the announcement of proposed rules. These groups include firms that met with the regulator during development of these rules, their closest competitors, and also their full set of passive competitors. While there is little evidence of separation between these groups prior to announcement, shortly before announcement all three groups move together in a positive direction. About 20 minutes after announcement, significantly different returns are observed depending on one's treatment or action group. The firms that met with regulators prior to notice and comment experience the most favorable market reaction. After about 30 minutes, the standardized return for meeting firms following the announcement of proposed rules was, on average, about half of one standard deviation above the benchmark of 0. This level remains

²²The apparent negative relationship is driven by a number of large banks such as BB&T, Bok Financial, and Popular Inc that are well covered, but rarely participate in rulemaking (and also do not spend much on lobbying). It is not obvious that the relationship is causal, because some variables are likely omitted variables in the logistic regression. Yet, it might be. Firms with more extensive coverage may see more risks to engaging with regulators, because it gives analysts a reason to ask hard questions about exposure.



Figure 3: Proposed rule returns for firms that met, most similar competitors, and all competitors.

fairly stable throughout the remainder of the estimation window. For this number of firms to experience such high returns is unusual: *t*-statistics range from 7 to 10 for time deltas between 30 minutes and 3 hours. For purposes of interpretation, it is worth having a ballpark estimate on the dollar impact of these movements. After 30 minutes, a half-standard deviation movement for all firms that met during rule development would imply over 4 billion in excess returns, while after three hours the movement is worth over 10 billion. The reason these estimates depend on the time delta is that a one-standard deviation movement in a stock’s price after 3 hours represents a larger real change in price than a one-standard-deviation movement after 30 minutes.

Both potential control groups of closest competitors and all competitors also experience abnormally high returns following rule announcements. The closest competitors to actively engaged firms experience returns between one-quarter and one-third of a standard deviation above baseline expectations between 30 minutes and 3 hours. The *t*-statistics on this group’s returns are between 2 and 3 for most of the 30–180 minute interval, although significance drops toward the end of the estimation window. The dollar impact of proposed rules on these firms is around 3 billion. The set of all competitors have average standardized returns between one-fifth and one-sixth of a standard deviation above baseline expectations. Because this group is about 10 times as large

as either of the other groups, the returns for this set are easier to distinguish from 0 statistically and have a much larger market impact. *t*-statistics range from 7 to 12 for the 30–180 minute event windows, and the movement of these stocks was valued in the hundreds of billions of dollars.

The previous comparisons are between firms and baseline expectations of no abnormal returns, but the differences between groups are also significant and substantial. Firms that met received about one-quarter of a standard deviation higher returns as compared with their most similar but disengaged competitors for any time domain between 30 minutes and 3 hours. *t*-statistics on the coefficient of τ^- as described above are between 2 and 3. The dollar impact of this difference on the actively engaged group was between 1.5 and 5 billion in excess returns relative to their most similar peers. The dollar impact of this difference on the control group, which aims to estimate the gains that these firms might have achieved if they had actively engaged, was between 2 and 2.5 billion.

Figure 4 presents a similar chart for the final rule and where the action of interest is commenting. Again, we observe a positive movement for all groups starting a few minutes prior to the emergence of the press release announcing the final rule. The returns for each group are smaller than in Figure 3. This is especially true for the set of all passive competitors which is not significantly

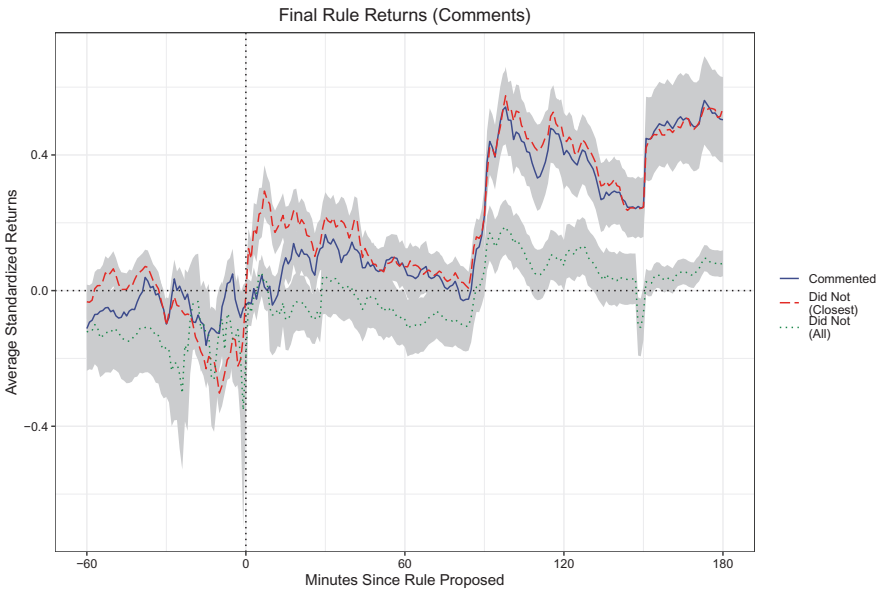


Figure 4: Final rule returns for firms that commented, most similar competitors, and all competitors.

different from baseline expectations of no abnormal returns for most time-deltas. Whether firms that comment have abnormally high returns as compared with the 0 benchmark depends on the time-delta one chooses. The level of return is less stable than in the case of meetings on proposed rules. Toward the end of the estimation window, excess returns for commenting firms are about half a standard deviation above the no return baseline, with *t*-statistics hovering around 5. In the middle of the estimation window the average standardized return for a commenting firms is not statistically distinguishable from zero, and for a few minutes it is actually negative. The evidence is therefore mixed about the effect of final rules on commenters as compared with the no return benchmark.

As far as differential returns, the effects are also more subtle than meetings, but there is some evidence that comments are associated with better market and regulatory outcomes. Differential returns are not observed between commenting firms and their most similar competitors; the standardized return paths for both firms are, in fact, nearly identical following the announcement of final rules. Yet there is a clear gap between commenting firms and the set of all competitors that did not engage. After 50 minutes it is about one-tenth of a standard deviation difference in abnormal returns. After about an hour and a half, the estimate implies a quarter of a standard deviation. Statistical significance for *these* estimates is uneven until the end of the event window, when it is consistently observed.

While the main effects of proposed rules on firms that meet and final rules on firms that comment has been described with respect to a robust set of potential benchmarks, there are two additional effects worth exploring. First, as Appendix Figure A3 shows, final rules *do not* trigger abnormal returns for firms that meet with regulators during rule development, either against baseline expectations of no abnormal returns or differentially as compared with either two classes of passive firms. Second, there is the question of the extent to which meetings and comments can serve as complements and substitutes. Table 2 presents a three-way regression of the actions meeting before rule development, meeting after rule development, and commenting on market returns from rule finalization as measured at several times. Unfortunately given the correlation between kinds of lobbying actions, it seems the regressions are underpowered to detect effects of similar magnitude as were described above. Nevertheless, the direction of these effects is worth parsing. In particular, comments are associated with positive returns of about one-tenth of a standard deviation after an hour, in matched and unmatched control groups, while meetings pre-notice is associated with a similar sized reaction in all but one of the models. Meetings post-notice are associated with substantively large negative returns, almost one-third of a standard deviation below expectations. Apparently firms that meet during rule development and then comment receive the highest returns from final rule announcements, while firms that meet

Table 2: Several models analyzing the extent to which forms of regulatory advocacy are complements or substitutes. Model (2) involves all competitors as the control group, the other models focus narrowly on the closest competitors.

	Dependent variable			
	return			
	<i>dt</i> = 30 (closest) (1)	<i>dt</i> = 60 (all) (2)	<i>dt</i> = 60 (closest) (3)	<i>dt</i> = 120 (closest) (4)
Commented	-0.050 (0.538)	0.179 (0.196)	0.092 (0.373)	0.158 (0.353)
Met Post Notice	-0.118 (0.810)	-0.312 (0.341)	-0.352 (0.570)	-0.443 (0.580)
Met Pre Notice	0.105 (0.637)	0.082 (0.262)	0.005 (0.451)	0.095 (0.428)
Constant	0.213 (0.326)	-0.083 (0.077)	0.048 (0.227)	0.302 (0.217)
Observations	1,645	1,540	1,540	1,340

Note: **p* < 0.1; ***p* < 0.05; ****p* < 0.01.

post-notice receive substantial negative returns. Interestingly, the magnitude of the estimated impact of commenting on final rule returns is *not* greatly influenced by the inclusion of either pre or post notice meetings.

Mechanism Checks

The results of the previous section show that regulatory announcements provoke unusual reactions among firms depending on the actions they undertook during rulemaking. Yet one might wonder if there is any evidence that the resolution of issues in a favorable way for these lobbying firms is what drive these differences, or whether they are statistical flukes. In order to address these concerns, I offer a content analysis of comment letters and two different kinds of falsification (placebo) tests. Further, one may find in the Appendix many permutations on the measurement techniques used in the last section, including different kinds of market controls, different proxies for rule announcement times, regressions with covariate controls and fixed effects instead of graphical presentations, and also non-parametric approaches to calculating excess returns.

First, I shall describe the content analysis exercise and its results. The fundamental goal of this analysis was to obtain direct observations of what changes firms requested, as well as whether these requests were granted. Yet the set of letters on Dodd-Frank rules at the Federal Reserve, even

just from publicly traded companies relating to dockets with datable final rule announcements, is over 4,000 pages long. Given the amount of textual material involved, fully cataloging all requests would be a difficult scholarly undertaking. Alternative approaches such as automated textual analysis or plagiarism detection are possible, however using these would introduce additional measurement validity questions, which in the context of a validation exercise are especially undesirable. Instead, I motivate a triage-based content analysis strategy based on two observations. First, while many pages were submitted to the Board on these rules, there were only 215 comments submitted by public companies on datable final rules. Second, practitioner accounts (and my own analysis confirm) that longer comment letters typically include summaries of the key points early in the comment (Stoll, 2010), with the most important points typically made earlier in the document. The primary reason for this is that letter writers are mindful of attention constraints. Therefore, I focus on identifying the first *three* requests that each comment letter makes. I code whether the request was granted in full, granted with minor qualifications, granted with major qualifications, or denied in full.

Overall, I find significant evidence that publicly traded firms often did have their requests granted, as Figure 5 shows. Only about one in four comments had their first three requests fully denied, which implies that 75% of firms received at least some movement in the direction of their requests in the final

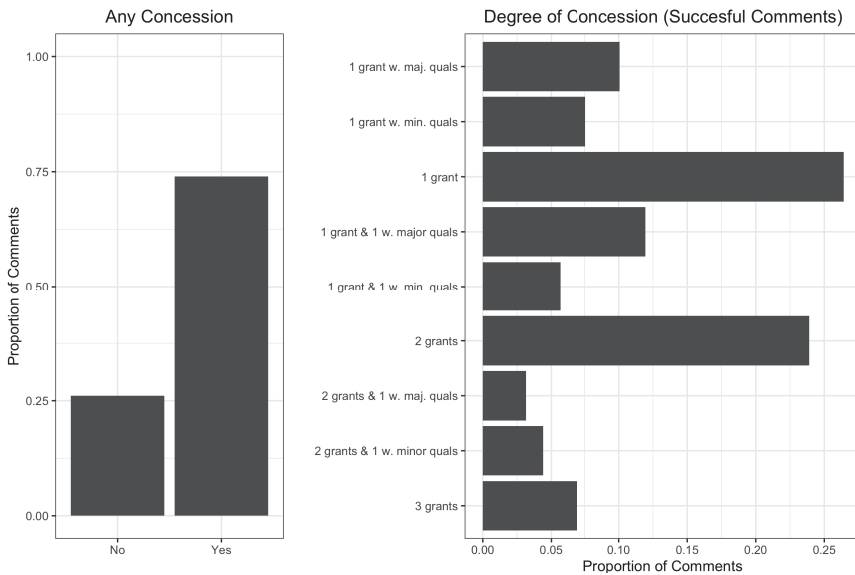


Figure 5: Distribution of concessions in response to first three requests in publicly traded firm comments.

rule. This is not to say that these comment letters met with complete success. Only 11 comments (5%) had their first three requests granted in full, so 95% of these commenters certainly did not get everything they wanted out of the notice-and-comment process. But some modest degree of commenter success is quite common. The typical comment letter from these firms would have one request granted in full and one request granted with major qualifications. Of course, not all these requests were of equal salience, and certainly the most ambitious requests would have less chance of success. Nevertheless, these results confirm that changes important enough for firms to ask for were occurring in the regulatory environment around the time I have examined. Moreover, these changes in the law correlate with market outcomes. For example, if one compares the hour returns of commenting firms that had their request granted in some part ($\bar{Y}_{it}^{60} = 0.13$) with those that had all requests denied ($\bar{Y}_{it}^{60} = -0.15$), it is clear that getting some regulatory concession is significantly better than not getting anything in the view of markets ($t = 2.3$ using a two-sample t -test).

Two other falsification tests bolster this analysis. Figure 6 shows the average returns following rule proposal for firms that meet (Panel 1) and following finalization for firms that comment (Panel 2). In each case, it also shows the returns that would have been observed if instead of the actual

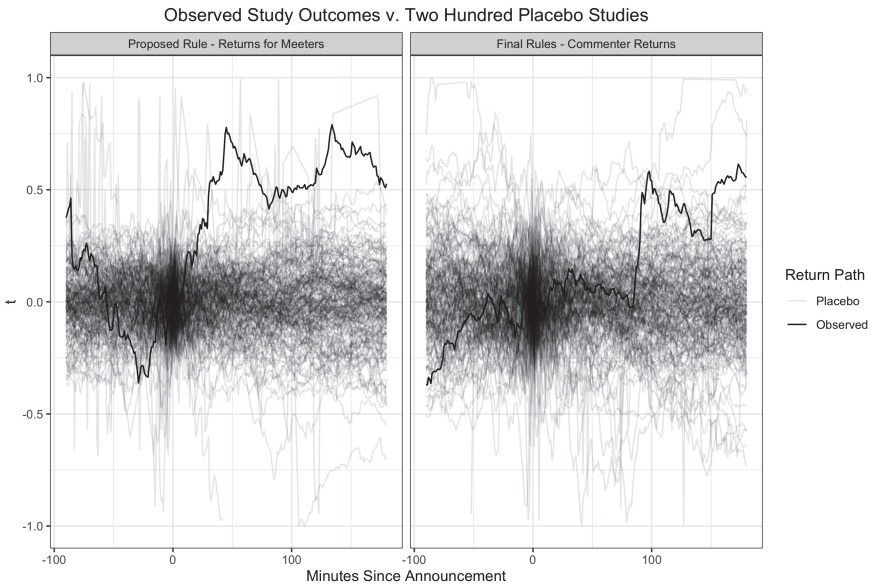


Figure 6: Return paths in placebo studies where announcement times are truly selected at random.

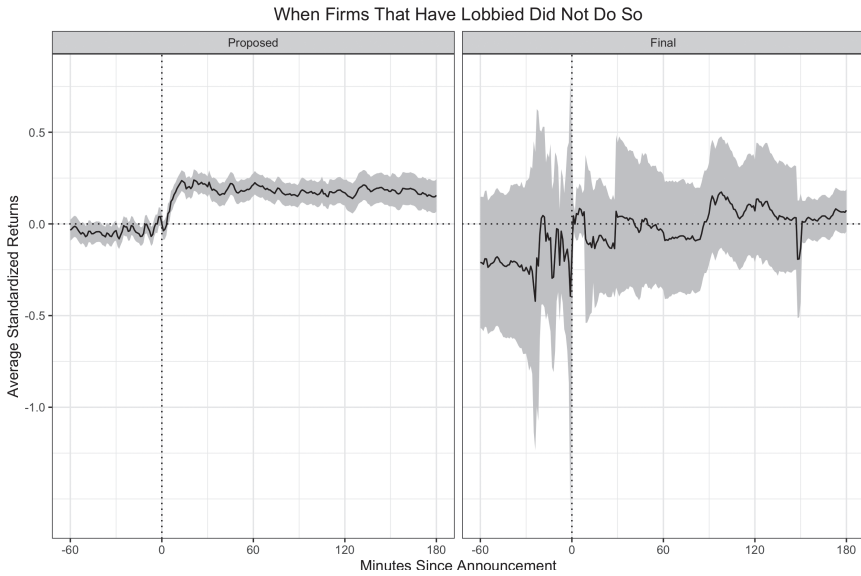


Figure 7: Second falsification exercise.

announcement times, I had selected times at random. The findings confirm that the regulatory announcements are provoking unusual returns as compared with baseline expectations and that uncertainty is not underestimated in the main regressions. Figure 7 presents a second placebo test. It focuses only on the returns of firms that have lobbied at some point and shows their average returns after regulations on which they do not lobby. The returns are very similar to the returns for the passive control groups in both of the main figures, as one would expect.

Discussion

The results of the last section provide stark, new evidence related to the particularistic benefit seeking that occurs during rulemaking. Yet, these findings are more appropriately interpreted as descriptive facts that test theory rather than causally identified estimates of the gains from lobbying. A few words about potential pitfalls of inference in this context are in order.

First, and perhaps most importantly, the analysis has focused entirely on mean tendencies. The underlying data do not suggest an automatic or inevitable relationship between lobbying and regulatory benefit. Sometimes firms that engage actually lose relative to their competitors. Second, even if

the event study methods show that regulatory announcements typically do cause a difference between firms that lobby and firms that do not, one could still worry that lobbying in whatever form is not the reason. To put a fine point on the issue, how does one know that a fundamentally similar debit card regulation would have emerged if PayPal had not engaged the regulator?

Fundamentally, causal interpretation requires assumptions. I have offered a few reasonable counterfactual assumptions for assessing whether the outcomes for firms that lobby in various forms are unusual. I have assumed, for example, that the outcome for PayPal would have been similar to what was actually observed for competitors that did not participate, such as LevelUp. Alternatively, I have assumed that the outcome for PayPal would have been similar to what one would have observed at random times (which is to say, no excess returns). Despite the plausibility of these returns as points of comparison, they cannot allay all concerns.

The no return benchmark in some ways represents the best counterfactual. Theoretically, the market should form the right expectations about the content of regulations as well as their impact on firms. The difference in price *ipso facto* reflects the difference in value to the firm from the actual regulatory regime versus the expected one (Schwert, 1981). One likely could develop a formal market model where the difference from the no return baseline actually does capture the real value of lobbying. Yet the assumptions of such a model would no doubt strike some as problematic. Among the most problematic for those sympathetic to the efficient market view is that I have used data that was mostly available at the time of rule announcement. Efficient markets should incorporate public information, so it is a puzzle why markets do not already perfectly incorporate the expected gains of lobbying as I have described them. Some solutions to the puzzle might involve the notion of opportunity cost, especially given the fact that betting on lobbying is risky, or the notion of transaction costs, since implementing a strategy based on almost random announcement times might be hard. These events are also more unusual and sporadic than, say, earnings reports, and efficient markets can allow abnormal profits in the short-term.

Of course, many doubt that markets are perfectly efficient, and thus would not grant the no return benchmark especially high importance or view the use of prior public information as disconcerting. Intuitively, one expects markets to react when regulations are announced, although in what way is not obvious. Perhaps markets are overly pessimistic about regulations affecting impacted firms, so that the movements I describe simply represent a “relief-rally.” Conversely, perhaps we should typically expect negative reactions for firms affected by the regulation, so that the no return benchmark actually understates how surprising the apparent regulatory impact is.

Comparisons between firms that are similarly affected by a regulation may strike many as providing stronger evidence about what the reaction would

have been if the firm had acted differently. In particular, focusing on the most similar competitors provides proxy outcomes that seek to control for unobserved factors that lead firms to lobby. Indeed, the very strong similarity of outcomes for the closest matches and commenters in Figure 4 supports the credibility of the matching exercise, and makes the difference associated with rule development meetings all the more startling. Yet the success of matching is an untestable proposition. There are probably reasons that the passive firms chose to remain passive. Without knowing what these are for sure, we cannot know how they correlate with market outcomes.

Further, the similarity of outcomes for commenting firms and their closest competitors also raises important questions about spillover effects and how they might affect the estimation strategy. If LevelUp benefits from PayPal's activity, which is very plausible in the debit card case, then the world in which PayPal does not participate could easily be *worse* for both companies than the counterfactual assumptions would have us believe. If meetings and comments are typically effective, one should expect the empirical approach presented here to *underestimate* their true impact. The estimate would reflect only the residual influence that the passive firms are not able to free ride upon.

Given the risks of underestimating an effect if regulatory lobbying is effective, one might argue that a more accurate counterfactual would emerge from selecting comparison firms that are less able to free-ride. The results for the set of all competitors give us some idea of what these results might look like. Indeed, the differential returns for this set are larger than those that are found when looking at most similar competitors. At the same time as the estimate is less susceptible to underestimation due to free-riding, it is more susceptible to whatever unobserved selection processes drive regulatory participation. It is also less clear that the firms really have a stake in the outcome of the rule, which also affects the credibility of this benchmark as a counterfactual comparison and explains why their returns are closer to 0. There is no question then that finding the right counterfactual comparison group is difficult. Indeed, given that the presence of free-riding leads to a SUTVA violation, it is not actually clear that even an experimental RCT *can* solve the fundamental causal inference problem. In the lobbying context, there is good reason to think that randomly assigning one firm to treatment might effect the outcomes of firms assigned to control.

While these considerations should discourage an overly literal interpretation of the event studies, one could go too far in a skeptical direction as well. Prior studies of influence during rulemaking do not solve (and most do not even address) the identification issues I have just described. The study presented here provides some of the most compelling quantitative evidence to date that regulatory lobbying is systematically related to substantially important market or social outcomes. The findings of this study not only provide strong motivation for continued focus on rulemaking, but also are important evidence

that regulatory lobbying is substantially affecting regulation in the direction one would expect, in many ways consonant with prior observational research that uses vastly different methods.

Given prior research, one would anticipate many of the market reactions I have found. What alternative theories could also lead to such findings? Suppose firms with high ability to respond to regulatory change engage the regulator more and get a vote of confidence from the market upon release of regulation. This story is not totally implausible, but it has its difficulties. Why does a high ability to respond to regulatory change lead to engaging the regulator more, if lobbying is not in fact effective? Why does PayPal have that ability but LevelUp does not? After all, many of the comparisons I have described are between narrow competitors who were not terribly different to begin with, or in the alternative further restricted to those that are even more similar in terms of market capitalization, legal sophistication, existing political investment, and so forth. Theories that claim lobbying changes regulations relative to market expectations in ways that are particularly beneficial for those firms that lobby are much simpler, hence more persuasive.

Moreover, as a descriptive matter, the difference in effects observed for meetings and comments is troubling, especially in light of the low transparency of meetings and recent trends toward their increasing use by agencies (Sferra-Bonistalli, 2014). The estimates say that whether firms that comment do better than one would expect following the announcement of regulations depends a great deal on one's choice of benchmark. If one constructs the passive comparison group one way, it appears that comments may be moving policy a great deal, but if one constructs it another way the evidence is much weaker. Yet proposed rules trigger large and surprising positive movements for firms that meet, as compared with baseline expectations of normal market movements, contemporaneous movements of all their passive competitors, and contemporaneous movements of their most similar competitors. These results should certainly encourage scholars to focus on meetings as a particularly important site for bias in rulemaking to emerge. Policymakers should tread carefully in encouraging agencies to make greater use of meetings.

Conclusion

Rulemaking is sometimes portrayed as a policymaking activity with limited political stakes, because the issues are technical and may be subject to intensive oversight. Alternatively, rulemaking is portrayed as a site where self-serving bureaucrats use their power to defend the already powerful. Here, I have argued that neither of these narratives provides a particularly accurate account of the politics of rulemaking. Rather, I argue that rulemaking is often a dynamic site of political competition between firms for particularistic benefits, within and

across industries, where who wins and who loses depends in significant part on how effectively they use the institutional mechanisms for influence provided them.

Administrative law deliberately creates open channels for public information to enter regulatory agencies, in the hopes of promoting more informed and legitimate policy selection. This information can, at times, work to change regulatory policy. This is precisely its intention. Yet not all channels are equally effective transmission devices for information that leads to policy change benefiting the sender. In particular, I advance the view that rule development meetings should be a more reliable channel for producing particularistic benefits than comments, because of how rulemaking discretion is distributed within an agency and over time. Rule development meetings target the effective decision-makers in the agency at the times when they have more discretion. Comments try to gain influence when the agency's flexibility is constrained by the investments they have already made in developing a certain sort of proposal. It also appears that they have a harder time reaching the decision maker with whatever discretion remains. This is not to say that we should not expect comments to have some chance of influencing regulators — empirically, they probably do — but rather that their success is likely to be more limited. Moreover, the differing capabilities of these two mechanisms as a way of producing regulatory responsiveness is troubling, since comments are a vehicle available to all members of society while meetings are generally only available to those interests that the regulator is willing to meet with. As Krawiec (2013) systematically documents, large banks dominated smaller banks in terms of access to meetings on Dodd–Frank rules, and public interest groups had fewer meetings still.

In order to test the theory and illustrate some of the normative issues, I have presented a series of high-frequency event studies, as well as several companion exercises such as modeling the propensity of firms to participate in regulatory lobbying, an original content analysis of over 200 comment letters, and various placebo (falsification) tests. Generally, the findings are that meetings are associated with far larger returns against any reasonable comparison group, with excess returns ranging from 5 to 10 billion dollars. Comments might be associated with excess returns on the order of several billion. The presence of free-riding likely attenuates these estimates. The fact that only publicly traded firms are considered, on only about one third of all regulations published by the Board, *must* attenuate the estimates. These findings likely lend support calls for increased transparency about meetings, given the risks to regulatory fairness they embody. They also provide strong motivation for future scholarly work on rulemaking to place a greater focus on the rule development phase and influence seeking during meetings, rather than narrowly focusing on the public comment period.

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