Institutional Opportunity, Demonstration Effects and Capture in the Regulation of Securities Markets

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Abstract:
The 2007-2009 financial crisis has led to considerable speculation about regulatory capture in global financial governance. Capture, however, remains an elusive concept and its determinants are still largely under-specified. Focusing on the regulation of securities markets, this article examines capture in terms of the plurality of actors mobilizing to affect regulatory outcomes. I explain capture as a function of two factors: institutional opportunity (the openness and accessibility of regulatory politics) and demonstration effects (how crises bring the cost of capture to the attention of the wider public). Using a unique data set of over 200 regulatory proposals, empirical analyses present two main findings. First, and contrary to a long-held assumption, I find that the financial crisis increased the likelihood of capture in securities markets. Second, this trend is reversed, however, when the news media disseminate information about the costs of capture and thereby increase the salience of specific regulatory issues.

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The 2007-2009 financial crisis has brought the frailties of global economic and financial governance into sharp relief. Chief among them is enhanced private-sector involvement in global rule-setting processes. Decades of neo-liberal dominance, deregulation, and ‘financialization’ prior to the crisis saw the significant strengthening of the powers of private-sector actors in transnational policy networks, public-private partnerships, and various self-regulatory regimes. In their heightened roles, these actors arguably shaped a system of market-based governance where regulation favored their own narrow, vested interests. Market makers became, in other words, market shapers (Quaglia, 2011). Speculation about widespread regulatory capture has, perhaps not surprisingly, become ‘the headline story’ to emerge from the recent financial crisis (Baker, 2010: 647, Surowiecki, 2010, Persaud, 2009, Johnson, 2009, Kauffman, 2009). Indeed, sweeping reforms initiated in response to the crisis have come to center largely on addressing these regulatory weaknesses, rolling back or constraining the powers of private-sector actors in an effort to reduce the risks of regulatory capture.

The promise of a ‘Bretton Woods moment’, while perhaps falling short of its mark, has nevertheless breathed new life into the study of global economic and financial regulation and especially issues related to regulatory capture (Helleiner, 2010, Helleiner and Pagliari, 2011, Igan et al., 2009, Carpenter and Moss, 2014a, Carpenter, 2014, Carpenter and Moss, 2014b). Scholars have variously assessed how private-sector actors have come to be ‘global governors’ of financial regulation (Underhill and Zhang, 2008, Mattli and Büthe, 2005, Krippner, 2011), adapted their strategies in light of the financial crisis (Young, 2013, Pagliari and Young, 2013a), and given compelling accounts of
regulatory capture, especially in the banking sector (Young, 2012, Lall, 2011, Woll, 2013, Quaglia, 2007). Despite increased scholarly attention, the precise mechanisms explaining the capture of global financial regulation are still poorly understood. To speak with Young (2012: 667), ‘the case of regulatory capture is asserted more than it is actually subject to empirical scrutiny’. Several problems have limited the potential for generalizable and cumulative research findings. First, the bulk of the empirical research is carried out in small $n$ case studies. While providing detail-rich analysis, small $n$ studies are harder-pressed to speak to the broader set of factors accounting for regulatory capture. Second, regulatory capture suffers from conceptual confusion and measurement issues. Like influence and power, understanding and measuring capture remains elusive.

This analysis seeks to address these shortcomings by presenting a large $n$ empirical examination of regulatory capture in the governance of securities markets. My point of focus is the European Securities and Markets Authority (henceforth ESMA), the European Union’s chief agency for regulating securities markets and safeguarding financial stability in Europe. ESMA’s considerable informal and formal powers have made it a key target for private-sector actors seeking influence over regulatory outcomes in Europe (Posner and Véron, 2010, Mügge, 2006, Quaglia, 2008). I assess regulatory capture as an empirical measure of the ‘plurality’ of actors mobilizing to influence regulatory outcomes. The underlying theoretical assumption is that a greater plurality of mobilizing actors reduces the likelihood of capture and increases the likelihood that regulations reflect broader public interests (Underhill and Zhang, 2008, Mattli and Woods, 2009, Pagliari and Young, 2013b, Pagliari and Young, 2013a). In terms of the determinants of capture, I build on recent insights and explain capture in terms of (1)
institutional opportunity (institutional openness, transparency and accessibility to regulatory decision-making processes), and (2) demonstration effects (the extent to which the financial crisis exposed the negative effects of capture to the public). While both factors are prominent in the existing literature no existing research brings them together in a large $n$ quantitative analysis testing the determinants of capture. This article is the first to do so. Further, I advance on existing work by providing a more fine-grained measure of demonstration effects. Specifically, I examine demonstration effects as both an exogenous shock, like the financial crisis, which exposes the policy inefficiencies related to capture, as well as the role of the news media in disseminating this information and influencing the salience of specific regulatory issues. While existing research conceptualizes demonstration effects in both ways it has failed to examine how the two factors work hand in hand.

I examine the determinants of financial sector mobilization patterns using a unique dataset derived from submissions to ESMA public consultations spanning the period 2002 to 2013. Specifically, I examine submissions from 2395 unique actors mobilizing on 203 regulatory proposals. ESMA is mandated to consult widely with industry actors on all new regulatory proposals. Consultations form a central element of ESMA’s regulatory tasks and have been identified as a key reason for the agency’s perceived legitimacy amongst private and public financial industry actors. Controlling for a battery of alternative explanations, I present a statistical analysis of capture in European securities markets regulation. Empirical analysis shows that both institutional opportunity and demonstration effects have a significant impact on actor plurality. My central finding is that, contrary to most existing studies, the financial crisis has led to less actor plurality.
and thus a greater likelihood of capture in securities markets. However, this effect is reversed when the crisis is considered in tandem with news media coverage of specific regulatory proposals. A combination of the financial crisis together with high salience on specific regulatory issues translates into greater actor plurality and thus the diminished likelihood of regulatory capture in ESMA.

**Explaining Regulatory Capture**

The current global economic crisis has prompted a renewed interest in the role of private-sector actors in global economic and financial governance. In implicating these actors in the crisis, scholars have sought to understand their influence over regulatory outcomes at the global or transnational level. The notion of regulatory capture – that idea that the those actors being regulated somehow control the regulatory process -- underlies much of this research, and scholars have put forward four general factors explaining the conditions of capture.

First, scholars have linked the larger, structural pressures of globalization to regulatory capture. The triumph of neo-liberalism in the post-War period stressed the important role of private-sector actors in reducing negative market externalities, increasing economic efficiencies and financial stability. Whether operating and exercising influence at the domestic level (Drezner, 2007, Simmons, 2001) or at the transnational level (Bhagwati, 2004), private-sector actors enjoyed a form of legitimacy derived from the technical complexity of governing global finance and a belief in a light-touch approach to regulation (Braithwaite and Drahos, 2000). The effects of globalization on financial regulation have been the opposite of regulation on other issues. For instance,
globalization has ‘ratcheted up’ regulation concerning the environment, safety and financial security, but has ‘ratcheted down’ most economic regulation (Mattli and Woods, 2009). To a certain extent, the effects of globalization on regulatory capture can be understood as operating as a form of structural power (Pagliari and Young, 2013a: 4): private interests enjoy a central position of power in global finance that policymakers are wary to upset on economic as well as political grounds.

A second factor determining capture is related to the considerable resources wielded by certain powerful financial industry actors. Superior wealth and other material resources are key to overcoming collective action problems that would otherwise limit an actor’s ability to mobilize at the transnational level. However, material resources are perhaps most important to the extent that they relate to informational advantages for certain private-sector actors. Technical, policy-relevant information is the currency of influence when it comes to global financial regulation (Griffith-Jones and Persaud, 2008, Helleiner and Porter, 2009, Lall, 2011, Young, 2012). Regulators tend to lack the type of technical expertise required to craft and implement efficient policies. By contrast, private-sector actors, being experts in the field, have this information in spades. Indeed, several studies provide compelling evidence for capture of the Basel I and II accords, demonstrating how large banks used the complexity of assessing risk to their advantage in determining capital adequacy requirements (Lall, 2011, Young, 2012).

A third factor relates to the institutions mediating public-private interactions. Institutional characteristics ensuring open, transparent and accessible regulatory processes mitigate the threat of capture. Central to this argument is the (neo-) pluralist assumption that, when given equal opportunities, a broad range of interests – and not just
narrow, vested interests -- will seek to weigh in on regulatory outcomes (Mügge, 2011, Mattli and Woods, 2009). The formal independence of some regulators, however, can disguise the type of privileged access some industry actors are given to regulatory processes (Pagliari and Young, 2013a). Lack of institutional transparency and openness can also lead to a so-called ‘revolving door problem’, when former key industry actors take on leading roles as regulators (Braun and Raddatz, 2010, Johnson and Kwak, 2010). This remains a particularly salient issue with regard to the Basel Committee on Banking Supervision (BCBS) and key global lobbying firms, like the Institute for International Finance (IIF) and the International Swaps and Derivatives Association (ISDA)(Young, 2012).

A final factor invoked to explain regulatory capture is the financial crisis itself. Regulatory capture thrives on periods of financial boom when private-sector actors find themselves relatively unopposed by countervailing (public) interests (Baker, 2010: 652). In these periods of ‘quiet politics’ private-public interactions tend to operate outside the public gaze, making it difficult to generate broad public demand for regulatory change (Culpepper, 2011). Large-scale events, like financial crises, however, can magnify financial fluctuations and shine a light on regulatory processes. Crises ‘demonstrate’ the costs of capture thereby lowering informational costs related to actor mobilization (Mattli and Woods, 2009, Quaglia, 2011, Pagliari, 2013). Crises therefore have the potential to level the playing field leading to a greater diversity of interests weighing in on regulatory outcomes.

**Institutional Opportunity, Demonstration Effects and Regulatory Capture**
The 2007-2009 global financial crisis exposed critical shortcomings in the global financial regulatory architecture. In Europe, the response was a flurry of new EU legislation meant to strengthen the bloc’s exiting supervisory framework. Key changes were first drafted in the de Larosière Report of 2008 and passed into law in 2009. At the center of these changes are the European System of Financial Supervisors (ESFS) and its three independent regulatory agencies: the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA), and the European Securities and Markets Authority (ESMA). These new agencies effectively replaced and enhanced the powers of three existing agencies established over a decade earlier as part of the Lamfalussy process: namely, the Committee of European Banking Supervisors (CEBS), the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) and the Committee of European Securities Regulators (CESR). While the Lamfalussy process already marked an important shift from a ‘regulatory regime that kept the lion’s share of rule-making and supervision at the national level’, to one where ‘most rules originate in Brussels’ (Posner, 2010: 943), the three new agencies denote a new high water mark in integrated European financial supervision. The new powers of EBA, EIOPA and ESMA include further reaching supervisory and regulatory control over national regulators and financial industry actors, the ability to ban risky financial products and activities and, in extreme cases, impose decisions directly on financial institutions when national regulators fail to act. These new powers are particularly important given that ‘more than 80% of capital market legislation in Europe passes through EU decision-making processes’ (Mügge, 2011: 62).
ESMA, regulating Europe’s securities markets, has garnered considerable attention with regard to the extent of its regulatory powers and perceived legitimacy amongst private-sector actors. And this even before the changes brought about by the de Larosière Report. For Posner (2010: 45), ESMA is a ‘supranational body that is larger than its constituent parts’ and a ‘fulcrum of rule-making and supervision’ for securities markets in Europe. ESMA has managed to crawl out from under the ‘shadow of government’ largely because of its close relations with market participants (Posner and Véron, 2010: 405). In particular, ESMA’s robust consultation regime, involving regularly held public hearings as well as online open consultations, accounts for its perceived legitimacy amongst market actors.

But it is also ESMA’s regulatory powers that have made it a particularly attractive target for capture. Several studies point to anecdotal evidence of capture. Mügge (2006: 405), for example, argues that ESMA, as well as its banking and insurance counterparts, became ‘reliable allies’ of industry actors seeking influence. Posner and Véron (2010) attribute part of the problem to the agency’s consultation mechanism, which they argue favors ‘London-oriented coalitions’. For Quaglia (2008), it is not just private sector influence but the complete absence of consumer groups in ESMA’s consultations that point to evidence of capture.

The central role of ESMA in ensuring financial stability in Europe as well as conjecture about the influence of private-sector actors begs the question: to what extent can we see evidence of capture in the regulation of securities markets in Europe? Are financial sector actors exercising undue influence over EMSA’s regulatory outputs? To address these questions I examine regulatory capture in terms of the mobilization patterns
of financial sector organizations seeking to influence ESMA policy outputs. My central argument is that capture is reflected in the plurality of actors mobilizing on a given regulatory issue. Specifically, capture is more likely to obtain when only a very narrow range of organizations mobilize on an issue and less likely to obtain when a more diffuse range of groups mobilize.

Conceptualizing capture in terms of mobilization patterns is well established in recent scholarship on financial regulatory politics. In particular, important contributions from Pagliari and Young (2013a, 2013b) use patterns of actor plurality as a proxy for capture in several global regulatory institutions. Mattli and Woods (2009) take a so-called ‘proceduralist’ approach to capture that turns on the presence of ‘due process mechanisms’ in decision-making processes. Capture is averted when regulation is arrived at through a process characterized by ‘inclusiveness, openness, transparency, fairness and accessibility’ ensuring that ‘everyone likely to be effected by it’ has a ‘voice in its formation’ (Mattli and Woods 2009, 13f). Similarly, Mügge (2011: 56) likens the conditions for averting capture to input legitimacy. The likelihood of capture is diminished when the institutions guiding decision-making processes enjoy a degree of ‘input legitimacy’ ensuring that ‘different societal actors have roughly equal access to policymaking’ (Curtin, 2003). Similarly, Underhill and Zhang (2008) link efficient policy outcomes to the relative inclusiveness of the policy process on the ‘input side’.

Importantly, these insights linking mobilization patterns and regulatory capture have long been acknowledged in the larger literature on interest group influence. While disagreeing on the extent to which interest groups are able to mobilize on a given issue, interest group scholars nevertheless tend to agree that influence is ultimately a function of
interest group plurality (Schattschneider, 1975, Olson, 1965, Rasmussen and Carroll, 2013, Gray and Lowery, 1995). As Salisbury (1992: 339) put it bluntly, ‘more groups, less clout’. More specifically, group plurality matters because it affects the ability of individual groups to get what they want in terms of specific policy outcomes. A greater plurality of groups has the potential to dilute any individual group’s influence insofar as it implies increased competition amongst divergent interests, less privileged access to decision-makers, and ensures that decision-makers receive a greater variety of information from a greater diversity of points of view on a given issue. Group plurality also tends to result in a type of ‘legislative roadblock’ whereby fewer proposals of ‘traditional interests’ are enacted thus creating fewer opportunities for influence (Gray and Lowery, 1995: 533).

One central caveat related to the approach taken here is that mobilization patterns can only give us a sense of the necessary but not the sufficient conditions for regulatory capture (see Underhill and Zhang 2008, who make a similar point). Being part of the decision-making process does not guarantee influence over regulatory outcomes. Further, group plurality does not account for coalitional activities whereby a diverse set of groups might work together toward obtaining one specific policy outcome (Pagliari and Young, 2013a). Nevertheless, groups cannot exercise influence without first mobilizing on an issue and seeking access to decision-making processes. As Truman (1971: 121) put it in his seminal study of interest groups in United States, access is the ‘facilitating intermediate objective of political interest groups’.

Bringing together insights from recent work on financial regulatory politics I explain financial sector mobilization patterns as a function of two factors: (1) institutional
opportunity: the extent to which regulatory policymaking processes are open to financial sector input, and (2) demonstration effects: the extent to which exogenous shocks, like the financial crisis, bring regulatory issues to the attention of the public. My analysis advances on this existing work in a number of important ways. First, scholars of financial regulatory politics have, as yet, only assessed mobilization patterns in terms of what Halpin and Jordan call a type of ‘scale exercise’ (2012: 2). This amounts to a counting activity that draws out patterns related to organization plurality but which does not test its determinants. A central aim of this analysis is to move beyond these scale exercises and to conduct an explanatory account of the factors determining mobilization patterns in the context of large n quantitative analysis.

A second advance made in this analysis is related to measuring demonstration effects. At a basic level, demonstration effects refer to how exogenous shocks, like financial crises, politicize otherwise complex and largely technocratic policy issues by shining a light on the costs of regulatory capture (Baker, 2010). At another level, demonstration effects imply the dissemination of information about these costs to the public as well as a broad range of interest organizations (Pagliari, 2013, Culpepper, 2011). News media play a key role in these processes insofar as their reporting on specific regulatory issues impacts issue salience. My central argument is that both exogenous shocks and issue salience need to be considered if we are to get a compelling picture of the impact of demonstration effects on mobilization patterns. In what follows I describe institutional opportunity and demonstration effects and how both explain variation in financial sector groups’ mobilization patterns.
Institutional Opportunity

Institutional opportunity refers to the openness, transparency and accessibility of the regulatory decision-making process. This can include any number of mechanisms through which private-sector actors consult on issues of regulatory policy, for instance via formal and informal consultation procedures, discussion forums, contact groups, and even internet-based consultations. Institutional opportunity, however, can face several barriers. For instance, access via consultations is diminished when actors are given little time to mobilize their members, plan their strategies and develop positions and arguments. Thus, notification of consultation opportunities as well as the duration of the consultation process plays an important role in giving access to a diversity of actors. The highly technical nature of financial regulation can also diminish opportunities to consult. The complexity of these issues makes it very difficult for a broad range of actors, either from inside or outside the industry, to participate. Complex regulatory issues effectively insulate regulation from the public, reducing democratic accountability, and limiting the diversity of actors with access. Taken together, these points lead to my first hypothesis.

\[H1: \text{the greater the extent of institutional opportunity, the greater the plurality of actors mobilizing to affect regulatory outcomes.}\]

Demonstration Effects

First, demonstration effects relate to exogenous shocks, like financial crises, which have the effect of exposing the negative externalities of capture via extreme fluctuations in financial markets. As Baker (2010: 652) argues, ‘capture is relatively easy during boom periods’ insofar as ‘actors find themselves relatively unopposed because countervailing
interests are largely absent’. However, as financial markets become increasingly volatile, regulators are more prone to re-regulate specific industries and industry actors find themselves harder-pressed to justify the furtherance of self-regulation. Extreme financial volatility brought about by crises does not necessarily change actor preferences, to speak with Fioretos (2010: 719), but rather provides a ‘moment when the ability of those seeking an expansion of regulatory authority [find themselves] better placed to have their long-standing preferences realized’. These insights lead to a second hypothesis.

**H2**: the greater financial volatility, the greater the plurality of actors mobilizing to affect regulatory outcomes.

The second aspect of demonstration effects refers to how information about extreme financial volatility increases public awareness via news media reporting and changes in the salience of specific regulatory issues. In bald terms, variation on issue salience impacts variation on the mobilization patterns of financial industry actors. When regulatory issues garner little media attention, financial industry actors ‘benefit from operating under the radar and out of the public eye’ (Baumgarnter et al., 2009: 120). But, as Schattschneider (1975) observed, increasing public attention moves conflict between different stakeholders from the private to the public sphere. In separate analyses, Woll (2013) and Klüver (2013) find that greater issue salience forces actors to seek alliances with other actors and, by consequence, increases the total number of actors mobilizing. Demonstration effects understood in terms of issue salience, in other words, makes ‘quiet politics’ loud and attracts a greater diversity of actors all seeking to have their voices heard and to influence decision-making outcomes (Culpepper, 2011, Pagliari, 2013). These insights lead to a third hypothesis.
**H3:** the greater the issue salience on specific regulatory issues, the greater the plurality of actors mobilizing to affect regulatory outcomes.

**Research Design**

The purpose of this analysis is to assess regulatory capture in Europe’s securities markets. I measure capture in terms of the plurality of the financial industry actors involved in the process of designing regulation and explain capture as a function of two central determinants: institutional opportunity and demonstration effects. In this section I will provide details on the variables considered in this analysis as well as their operationalization.

*Plurality of Actors in the Consultation Process*

This analysis conceives of regulatory capture in terms of actor plurality in the ESMA open consultation process. While consultations are by no means the only way for private-sector actors to seek to influence regulatory outcomes, they do play a central role in the regulatory and supervisory activities of ESMA. Indeed, ESMA is mandated to ‘conduct open public consultations’ before submitting its standards and proposals to the European Commission (European Commission, 2010). What is more, ESMA’s consultation procedure has been instrumental in the relative independence and regulatory power of the agency as well as its perceived legitimacy amongst market actors (Mügge, 2011, Posner, 2010). Data on consultations are also readily available online and span the period since the agency’s inception in 2002 to the most recent on-going consultations. The data comprises a total of 6118 individual submissions, 2395 unique organizations,
and 203 consultations. Actor plurality is assessed as the number of different types of organizations weighing in on each consultation. To this end, I coded the 2395 organizations using a modified version of the International Standard Industrial Classification scheme (ISIC rev.4), a United Nations system for classifying diverse economic sector activities.vi A total of fourteen different organization types in four broad categories were coded. Table 1 provides an overview of these different actor types in terms of total consultation submissions across all ESMA consultations between 2002 and 2013.

The fourteen classification types are used to measure the plurality of actors represented in each consultation and are operationalized using a Herfindahl-Hirschmann Index (HHI). HHI is a well-established method for calculating actor plurality and has been used in various studies on private-sector actors as well as interest organizations more broadly speaking (Lowery and Gray, 2004, Rasmussen and Carroll, 2013, Hansen et al., 2005).vii HHI was calculated for all actors submitting information to each of EMSA’s 203 consultations and is measured as the sum of the squared proportions of actors belonging to each of the fourteen actor categories considered in this analysis. The index therefore ranges from 1/number of actor categories (in this case 14) to one with values closer to 1. Lower values, those closer to 0, indicate greater actor plurality, while higher values, those closer to 1, indicate less actor plurality.
Institutional Opportunity

Institutional opportunity refers to the openness and accessibility of the consultation process. This involves the chance to be involved as well as a consideration of those factors that might limit or impede involvement. ESMA’s mandate to consult before submitting decisions to the Commission has not changed since its establishment in 2002. Variation in institutional opportunity is therefore captured primarily in terms of barriers to access. Specifically, four indicators are used to measure institutional opportunity. All data are derived from the ESMA website and its archives. (1) The first indicator is the duration of the consultation process. Longer consultation processes give actors more time to mobilize their members, gather support and prepare positions. The expectation is that longer consultation periods relate to a greater diversity of actors providing their input to the consultation process. Duration of the consultation process is measured as the number of days from the start of the consultation process to its end date. (2) The second indicator relates to press statements released by ESMA announcing the start of specific consultations. ESMA can actively increase actor plurality by issuing a press release announcing consultations. Consultations that are not preceded by a press release, by contrast, garner less attention. Press release is measured as a binary variable (1= press release). (3) The third indicator for institutional opportunity is the technical complexity of a consultation issue. Technical complexity can act as a barrier to actor access and plurality. Highly complex issues tend to not only be narrower in scope, but also require narrow specialization. Following Klüver (2012) and Kaeding (2006), issue complexity is measured as the length of each consultation document in words. More words indicate greater complexity. Preliminary analysis revealed that values for issue
complexity were highly skewed. As such, this variable was logged to normalize distribution. (4) A fourth indicator for institutional opportunity is workload. ESMA can hold multiple consultations simultaneously, adding to the potential workload of private-sector actors and limiting their ability to provide their input to consultations. Workload is calculated as the number of simultaneous consultations per month.

**Demonstration Effects**

Demonstration effects were assessed in two ways: first, in terms of exogenous shocks and second as the salience of regulatory issues. I will discuss each in turn.

Two proxies were used for measuring demonstration effects as exogenous shocks. First, I assessed the impact of the financial crisis on actor plurality by creating a dummy variable where all consultations before 2007 (pre-financial crisis) are coded as 0 and all consultations after 2007 (post-financial crisis) are coded as 1. A more fine-grained approach to assessing exogenous shocks draws on data measuring financial volatility. Data for this variable were derived from the St. Louis Financial Stress Index, which measures the ‘degree of financial stress in the markets and is constructed from 18 weekly data series: seven interest rate series, six yield spreads and five other indicators. Each of these variables captures some aspect of financial stress’.\(^{viii}\) Values of zero represent normal financial market conditions; values below zero suggest below-average financial market stress; finally, values above zero suggest above-average financial market stress. Monthly data on financial volatility were calculated in order to get a more fine-grained measure for this variable and are appropriate for the data on consultations (which also correspond to specific months). In order to capture the expected causal effects of
financial volatility on the dependent variable, financial volatility values for the month preceding the consultations were used in the regression analysis.

Demonstration effects conceptualized in terms of issue salience were measured as the extent of news media coverage for specific regulatory issues. Greater coverage increases the potential for a greater plurality of actors to mobilize and add their voices to the consultation process. Issue salience was therefore measured in terms of news media coverage per month (for each month since 2002) of specific securities markets proposals issued by ESMA in *The Financial Times* as well three EU niche newspapers – *Euroactiv*, *EUobserver*, and *European Voice*.ix Following Epstein and Segal (2000), I used LexisNexis as well as the individual newspapers’ search engines to measure when ESMA (or its predecessor the Committee of European Securities Regulators, (CESR)) as well as specific policy keywords were mentioned in an article headline or lead. Policy keywords were derived from the ‘policy sections’ described on all ESMA consultations. A total of 20 ‘policy sections’ were examined.x As with the approach taken for financial volatility monthly issue salience values were calculated and the values for the month preceding the consultations were used in the regression analysis.

The individual indicators described above capture two distinct aspects of demonstration effects but do not account for how the two might work hand in hand. After all, high levels of financial volatility can only shine a light on the costs of regulatory capture if the news media brings this information to the attention of the public. As such, I have included an interaction term (*financial volatility x issue salience*) in the regression analysis.
Control Variables

In order to isolate the effects of the variables listed above, it is important to include two control variables. First, I consider whether or not the consultation is part of a so-called ‘joint call’ for submissions? Joint calls are issued by all three of the EU’s financial regulatory agencies: EBA, EIOPA and ESMA. Joint calls are necessarily broad in scope and relevant for a wider variety of actors spanning the banking and insurance sectors as well as securities markets. It stands to reason that joint calls will result in greater actor diversity. Joint calls are coded as a binary variable (joint calls = 1). Second, ESMA can issue a variety of different proposals for consideration by the Commission. Only so-called ‘regulatory technical standards’, following the shift from CESR to ESMA in 2011, require open consultations and are submitted to the Commission for consideration as legislative proposals (European Commission, 2010). By contrast, opinions, guidelines, principles and recommendations, ESMAs other proposal types, do not necessary require consultations and only set out guidelines that should be followed by national-level regulators (they cannot become EU law and there are few mechanisms ensuring compliance). Regulatory technical standards, insofar as they provide a more direct route to influencing EU legislation and require open consultations, should attract a greater plurality of actors than other proposal types. I control for proposal type by coding regulatory technical standards as a binary variable (regulatory technical standards =1).

Table 2, below, provides an overview of all variables considered in this analysis, including descriptive statistics as well as the predicted effect of each variable on the dependent variable.
Analysis

The purpose of this analysis is to examine regulatory capture in Europe’s securities markets. I have conceived of capture in terms of the plurality of actors mobilizing to affect regulatory outcomes and operationalized it using the HHI. As such, measurement of the dependent variable is based on proportions between 0 and 1 and has a non-normal distribution. In terms of the specification of the statistical model I follow Papke and Wooldridge (1996) who propose using fractional logit regression in the framework of generalized linear modeling (with a binomial distribution) for this type of data. The dependent variable was also logged in order to normalize distribution. A linktest conducted to assess the appropriateness of this method revealed a properly specified model. Table 3, below, presents the results of the regression analysis in five models. Models 1 and 2 examine the determinants of HHI using a binary variable measuring the financial crisis (1= financial crisis) while models 3, 4 and 5 use the more fine grained financial volatility measure. Models 1 and 3 omit control variables and act as robustness checks for the other models and model 5 includes the interaction term financial volatility x issue salience. Additional robust checks using different model specifications can be found in the online appendix.
Results presented in table 3 provide some support for hypothesis 1, linking institutional supply to the mobilization of a greater plurality of actors. First, the issuing of a press release is negatively correlated with HHI at a statistically significant level in models 3, 4 and 5. As expected, consultations that are preceded by a press release are more likely to attract a greater plurality of actors. Importantly, institutional opportunity operationalized as press releases speaks to the active role of regulators in creating open and transparent conditions of access. Equally, it implicates regulators, and not just private-sector actors, in instances of regulatory capture (see Helleiner and Porter (2009: 14)). Second, the results for issue complexity are significant, but not in the expected direction. Indeed, most models suggest that greater issue complexity increases the likelihood of attracting a greater plurality of actors to the consultation process. This, of course, undermines the expected effect that issue complexity would make weighing in on the decision-making process an exceedingly difficult task thus reducing actor plurality. One explanation for this unexpected finding can be related to the operationalization of the complexity variable. Rather than only indicating complexity, longer consultation documents (measured in number of words) also correspond to more far reaching regulations, touching on more issues and thus inviting a broader range of interests and actors. This explanation, however, complicates the logic employed in existing studies that use word length to measure issue complexity and, perhaps more importantly, undermines theoretical assumptions about the effects of issues complexity on the potential for actor mobilization (Klüver, 2012, Kaeding, 2006). Finally, other variables measuring institutional opportunity show few significant differences in the five models. Duration of consultation and workload do not seem to play a role in terms of institutional opportunity.
The results for demonstration effects provide a less equivocal picture, with little support for hypotheses 2 and 3 as well as some surprising and unexpected results. First, demonstration effects measured as issue salience provide limited support for hypothesis 3 but only in models 1 and 2 and at a marginal level of significance (90% confidence level). Importantly, these differences are not observed in the other models, further calling into question the robustness of these findings.

A central finding presented in the regression analyses is that exogenous shocks appear to diminish actor plurality rather than increase it. Specifically, exogenous shocks measured using a dummy variable for the financial crisis as well as a more fine-grained measure of financial volatility are both positively correlated with HHI at statistically significant levels across all five models. For the binary variable measuring the financial crisis, actor plurality is higher in the pre-crisis period (before 2007) and lower in the post-crisis period (after 2007), were we see a more concentrated, narrow group of insiders seeking influence. Similar effects are observed for financial volatility. Figure 1 (using results from model 4) plots these effects, showing an increase in HHI as financial volatility increases (while holding all other variables constant at their mean and binary variables constant at their mode). In fact, we see a significant increase from a predicted HHI value of about 0.05 (greater actor plurality) to a value just under 0.15 (less actor plurality) as we move from below average levels of financial volatility to very high levels of volatility.

[figure 1 about here]
How can we explain these unexpected results? One explanation would be the increase in regulatory proposals following the start of the financial crisis in 2007. As noted above, the EU responded to the crisis with a flurry of new legislation focused on financial and economic regulation. Indeed, data collected for this analysis finds a sharp increase in ESMA regulatory proposals during the crisis period and peaking in 2009. The greater number of regulatory proposals at this time arguably provided financial industry actors with a unique opportunity to seek to influence regulatory outcomes. As Mügge (2006: 186) explains, it is oftentimes financial-industry actors themselves who offer tightened regulation following crises: ‘Self-regulation with public oversight often is the compromise, particularly when public actors feel the need to intervene “visibly”’. This finding also mirrors evidence from Woll (2013: 559) on hedge fund regulation, where the financial crisis did less to ‘reshuffle the politics of equilibrium’ than to increase the political salience of regulation in a way that affects both government actions and industry lobbying. Similarly, Pagliari’s (2012) study of post-crisis financial regulatory change found that while the crisis ended a period dominated by light touch regulation there was also considerable ‘continuity’ between pre- and post-crisis periods.

One of the most important findings presented in the regression analyses relates to the way that exogenous shocks work hand in hand with issue salience. Indeed, results in model 5 suggest that when considered together as an interaction term, demonstration effects measured as financial volatility and issue salience have a statistically significant (95% confidence level) negative effect on HHI. Higher values of the interaction term correlate with higher degrees of actor plurality. In other words, the interaction term seems to reverse the effects of financial volatility on actor plurality, providing some support for
hypotheses 2 and 3. Using values from model 5, figure 2 plots this effect, showing a significant decrease in predicted HHI values from 0.15 to a value of about 0.02 as we move from low interaction effect values to higher ones. These results, compared with results in the other regression models, suggest that exogenous shocks alone are not sufficient for mobilizing a greater plurality of actors. Indeed, as discussed above, shocks (like the crisis and financial volatility) seem to decrease actor plurality and nurture the conditions for regulatory capture. The main point is that demonstration effects require a medium for communicating information about the costs of regulatory capture to a broader audience. Issue salience therefore works hand in hand with exogenous shocks to produce the type of demonstration effects described in the extant literature and which are linked to diminished chances for regulatory capture.

Conclusions

While scholars were quick to implicate regulatory capture in the current financial crisis, an understanding of what capture entailed remained under-specified and research has remained largely based on small \( n \) analyses. Despite providing important insights into the question of what drives capture, small \( n \) analyses is ill suited to providing generalizable results and controlling for a broad range of competing explanations. The central point of the present analysis was to address these shortcomings. As such, and drawing on a developing body of research, I have assessed regulatory capture in Europe’s securities markets in terms of the mobilization patterns of financial industry actors. A
large \( n \) analysis was carried out using a unique data set on over 200 ESMA consultations spanning a eleven-year period. Building on current theoretical insights I explain capture in terms of institutional opportunity and demonstration effects. Two central advances were made in this analysis. First, this analysis presented a large \( n \) explanatory analysis of the determinants of capture. Second, it operationalized demonstration effects in terms of both exogenous shocks and issue salience.

Regression results provide considerable evidence supporting the impact of institutional opportunity on actor plurality but unexpected findings for the impact of demonstration effects. Press statements released by ESMA announcing consultations tend to result in a greater plurality of actors. Issue complexity, however, rather than diminishing actor plurality, worked to increase the variety of actors seeking influence in ESMA. A central finding presented in this analysis was that exogenous shocks, like the financial crisis as well as financial volatility, tends to exacerbate rather than mitigate regulatory capture. This finding challenges well-established assumptions in the literature that such shocks should expose the costs of capture and lead to the mobilization of a greater plurality of actors seeking to weigh in on the politics of financial regulation. This effect, however, is reversed when exogenous shocks are considered in tandem with issue salience. It appears as if the two factors work hand in hand: information about the costs of capture are exposed by exogenous shocks but this information is disseminated to a broad range of actors via the news media working to increase the salience of specific regulatory issues.

In providing insight into capture in the regulation of Europe’s securities markets, this analysis is also speaks to broader issues of global regulatory capture. In particular,
the theoretical framework used in this analysis would be well suited to explaining capture in other settings. Future research could proceed in two ways: either by expanding analyses to the EU’s other financial regulatory agencies in the banking and insurance sectors or by comparing capture in ESMA with its global counterpart, the International Organization of Securities Commissions (IOSCO). Both options would help give a more comprehensive and compelling picture of the effects of institutional opportunity and demonstration effects on regulatory capture. Such a comparison would also facilitate the inclusion of agency independence in the study of capture. Thus far, scholarship has largely ignored variation in independence across different regulatory agencies despite readily available data (Wonka and Rittberger, 2010) and existing theory modeling delegated power in these agencies (Pollack, 2002, Thatcher and Stone Sweet, 2002). Examining agency independence would also mark an important step toward considering regulators, and not just private-sector actors, in the story of capture. This is particularly important given recent findings on the impact of the ‘revolving door problem’ on how financial and economic policies are regulated at the international level.
References


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### Table 3: Fractional logit regression explaining actor plurality (HHI)

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Robust standard errors in parentheses
+ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001
Figure 1: Predicted HHI and financial volatility
Figure 2: Predicted HHI and Financial Volatility x Issue Salience
Notes

i Until 2011, ESMA was called the Committee of European Securities Regulators or CESR.

ii For a somewhat more sober view see Coen and Thatcher (2008: 50) who argue that these agencies remain largely ‘constrained by existing actors. In particular, the European Commission and national regulators maintain many controls over [these agencies], which lack resources and rights of initiative.’

iii Like influence and power, regulatory capture is notoriously difficult to measure. For recent efforts to conceptualize capture see Carpenter and Moss (2014). For a review of regulatory capture see Dal Bó (2006).

iv For a different view, see Holyoke (2011) who argues that interest group competition can, in some instances, result in a compromise between individual interests groups and decision-makers.

v Examples of recent work employing scale exercises see: Young, 2013, Pagliari and Young, 2013a, Pagliari and Young, 2013b

vi A full description of ISIC rev.4 can be found at: https://unstats.un.org/unsd/cr/registry/isic-4.asp (last accessed 3.5.2014). A similar approach to coding is taken in Pagliari and Young (2013a). Coding of organization types that fall under the ‘Other’ category deviates from ISIC coding and are defined as all the other organization types weighing in on ESMA consultations as defined by ESMA’s own classification scheme.

vii HHI measures actor plurality as the proportion of different types of actors weighing in on individual consultations. As such, it differs from simply looking at the raw number of actors participating in a given consultation. Nevertheless, an additional statistical analysis using the raw number of actors as the dependent variable is presented in the appendix. These analyses serve as additional robustness checks for the main analysis presented in this article.

viii St. Louis Financial Stress Index can be found at https://research.stlouisfed.org/fred2/series/STLFSI (last accessed 3.5.2014)

ix The Financial Times was chosen because it is the primary international newspaper reporting on economic and financial issues. The three EU niche newspapers were included in order to address the fact that this analysis focuses on securities markets regulation in the EU. Previous research by Chalmers (2013) identified these newspapers as important information sources to a broad range of interest group types.

x Sections include: (1) corporate governance, (2) corporate reporting policy, (3) credit rating agencies, (4) dialogue with the US, (5) economic analysis, (6) equivalence of IFRS, (7) ESMA-Pol, (8) IFRS enforcement, (9) investment management, (10) investor protection and intermediaries, (11) IT governance, (12) joint-committee ESFS, (13) market abuse, (14) MiFID, (15) post-trading, (16) prospectus, (17) secondary markets, (18) securities markets, (19) short selling, (20) transparency.