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Regulatory Capture: Why? How Much? What to Do About It?¹

Regulatory capture is a much debated issue in regulatory economics that applies to many industries including the financial services industry. This paper discusses what the economic incentives leading to regulatory capture are, presents a case study on banks' capital requirements that helps to shed light on the possible magnitude of regulatory capture and finishes with policy recommendations what to do about capture. The main message of the paper is that although regulatory capture is deeply rooted in the incentive system of regulators and regulated industries it appears in different degrees ranging from strong to weak capture. Depending on its degree alternative measures can be applied to mitigate regulatory capture.

1 Introduction

When markets fall short to deliver outcomes that are in the interest of the general public, it is necessary to make use of regulatory actions to correct these failures. Once regulatory actions and agencies are in place, their objectives must be set in such a way as to serve the common good. Specifying theoretically what the common good is only requires the application of the appropriate theory framework. It is, however, far from trivial to implement it in practice. Regulatory agencies are delegated institutions embedded in industry structures that are subject to agency problems and economic incentives that do not necessarily serve the common good. In a framework consisting of the general public (represented by the legislature), the regulator, and the regulated industry, it might be possible that incentives for regulators are in conflict with public interests and serve the regulated industry, instead, resulting in an economic force known as regulatory capture.

The purpose of this paper is to analyze regulatory capture in the financial services industry. It is widely accepted that regulatory capture of public agencies and policy has been a main causal

factor of the financial crisis 2007-09. As Daniel Kauffman, a senior fellow at the Brookings Institution wrote in a column in *Forbes*: “There are multiple causes of the financial crisis. But we cannot ignore the element of ‘capture’ in the systemic failures of oversight,



regulation and disclosure in the financial sector.”² In light of these conclusions, it seems necessary to have a closer look at capture within the financial industry. Therefore, the paper engages in a discussion of how to define regulatory capture and advances a broad and a narrow interpretation. Next, economic motives are studied that explain why there is capture. Following Zingales (2013) it is argued that

¹ I am grateful to Otto Randl for critical and helpful discussion.

² A similar conclusion has been reached by Simon Johnson, a former chief economist of the IMF, in an article entitled “The Quiet Coup”, published in *The Atlantic* (2009).

capture is pervasive because it is the outcome of the interplay of economic incentives. We summarize three economic mechanisms that explain the existence of regulatory capture. Using a case study on trust preferred securities first analyzed in Boyson et al. (2014) we discuss the potential magnitude of capture and the mechanisms that pro-



mote it in the banking sector. According to Baker (2010) there are at least four mechanisms that enhance capture in the banking industry with revolving doors being the most prominent one. Finally, we report on a recent study about regulatory capture and social identification. Using an extensive questionnaire among regulators and regulated managers Veltrop and de Haan (2014) find that (i) social identification is negatively correlated with task performance of regulators and (ii) prior tenure in the financial services industry is positively correlated with social identification to an industry. As a consequence, prior tenure in the financial services industry causes capture through social identification. We con-

clude the analysis by analyzing how to mitigate regulatory capture in the banking and financial services industry.

2 Defining Regulatory Capture

In a seminal paper Stigler (1971) articulated the view that even when a regulatory authority was set up to prevent monopolistic abuse of consumers, regulation ends up being “captured” by the firm it is supposed to discipline.³ This view triggered a large body of literature on the economics of regulation, summarized, for example, in Kahn (1988). Stigler (1971) applied his theory of regulation to the U.S. trucking industry and found that in the 1920 trucks emerged as competitors for existing railroads on inter-city freight. Railroads responded by capturing public authorities to impose severe limits on trucks to deliver freight from one city to the other. Stigler (1971) concluded from his industry analysis that regulators could be swayed by special interests of the industry being regulated and hence, governments and/or regulators should be rolled back. As a consequence of Stigler’s insights a branch of regulatory economics emerged in the spirit of the Chicago School of Economics that stipulates to get rid of regulation altogether because of capture’s severe distortions of public interests.

According to a recent survey by Dal Bo (2006) regulatory capture can be defined in terms of a narrow and a broad interpretation. In the broad sense it is the process through which *special interests affect state intervention in any of its forms while in the narrow interpretation regulatory capture is the process through which regulated (financial services) firms end up manipulating the authorities that are supposed to control them* (Dal Bo, 2006). It must be stressed, that regula-

³ See Dal Bo (2006) for a review of the theory and applications of regulatory capture.

tory capture in the broad and narrow interpretation is neither corruption nor associated illegal action such as bribes and threats. Corruption and illegal actions are cases for the court that are beyond the scope of this analysis.

Alternatively Carpenter and Moss (2013) define regulatory capture as *the process by which regulation is consistently or repeatedly directed away from the public interest and toward the interest of the regulated industry by the intent and the action of the industry itself*. This definition rests on three important notions: public interest, regulated industry, and intent. The interplay among those can best be elaborated using the traditional model of the iron triangle (Mitnick, 1980). Chart 1 presents the players involved in the iron triangle, the legislature, the regulator put in place by the govern-

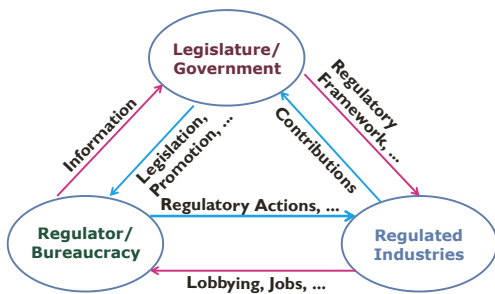
ment, and the regulated industries. Although these players are intertwined in a complex way, aiming for a first best solution of the system as a whole requires all three institutions to serve the public interest. It is not a trivial issue to pin down what public interest is but we identify it with economic welfare of all agents represented in the system.

In a first best world legislature sets all the rules in such a way that individual actions taken by agents serve the common good and hence maximize economic welfare. This, however, requires the absence of externalities, market power and market failures that are integral parts of modern market economies. As a consequence, regulatory bodies come into existence with the duty to control industries and the objective to serve the public interest. If regulators fail to serve the public interest and collude with the regulated industries, instead, the system is characterized by regulatory capture. Chart 2 contrasts the two opposing cases. On the left side we see the system set up to serve the public interest and on the right side we see the case of regulatory capture.

According to the right part of chart 2, regulatory capture comes into existence because the regulator and the regulated industry collude and maxi-

Chart 1

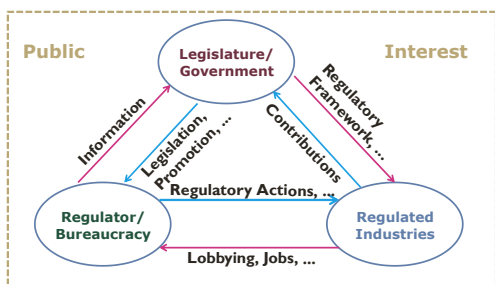
Iron Triangle



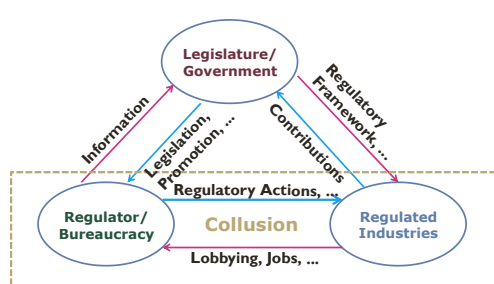
Source: Author's illustration.

Chart 2

Regulation Serving the Common Good



Captured Regulation



mize the sum of their own interest at the expense of the public interest. Collusion as represented in chart 2 is neither the outcome of corruption nor of illegal action but the response to economic incentives driving the actions of agents representing the regulator and the industry. In this setting capture corresponds to optimal (equilibrium) behavior and hence can only be mitigated if incentives are changed.

3 Forces Leading to Regulatory Capture

Starting with the seminal works by Olson (1965) and Stigler (1971) economists have analyzed economic forces that cause regulators to change their behavior and become captured. In a recent paper Zingales (2013) summarizes these theories by identifying different channels that correspond to incentive mechanisms which might cause regulators to act in the interest of the regulated. The two most important channels are

- Career concerns of the regulator
- Industry specific information needed by the regulator to take regulatory actions that has to be provided by the industry

In a world in which salaries of the regulator substantially differ from the salaries of the industry being regulated, regulators face attractive outside offers that might substantially change their careers.⁴ In case an industry player wants to hire a former regulator to take advantage of her skills, industry will prefer regulators with a record that indicates appreciation of the industry. If regulators later in their careers want to benefit from attractive outside offers, they have a strong incentive to signal appreciation of the industry already

during their tenure as a regulator. Alternatively, if institutional knowledge is important for running an industry, regulators might have the incentive to increase the number and the complexity of institutional rules industry has to follow. By doing so, regulators might also increase their job opportunities in the outside industry. This would, however, be an opposite effect to regulatory capture.

Even if regulators do not care about outside job offers their careers might strongly be affected by outside interests. If an outside interest group spreads false rumors about the regulator, the regulator's career might be affected by the actions taken by this outside group. Hilton (1972) proposes a related model in which the regulator tries to avoid "squawking". In this setup policy makers might interpret negative feedback about the regulator as efficient regulation and reward her for that.

In taking actions the regulator needs a lot of industry specific information. In the absence of disclosure requirements the two parties, regulator and regulated, might trade information for favorable treatment. In terms of chart 2 from above the regulator and the regulated industry establish a cooperative environment and collude. Collusion is supported by the implicit threat that any of the parties can withdraw from the cooperation making them worse off.

In addition to these two forces there is also an external force at work. Regulators need a lot of industry specific human capital to do a good job. As a consequence, they have the vested interest to take actions that make this capital more valuable. This can lead to social identification with the concerns and

⁴ A regulator quitting her job and moving to the industry she used to regulate is referred to as "revolving doors" (see Makkai and Braithwaite (1992), Salant (1995) and Shive and Forster (2014)).

challenges of the industry, resulting in capture. Veltrop and de Haan (2014) empirically demonstrate that social identification with the financial sector is an important mechanism for capture.

The forces that are identified to promote regulatory capture do not work well if all interest groups are symmetric and have the same level of influence. In such a case competition among conflicting interest groups results in an efficient outcome and hence mitigates regulatory capture. Regulatory capture relies on asymmetries either in terms of information or in terms of influence. Laffont and Tirole (1991) are the first to present a theory of regulatory capture in an agency setting with asymmetric information. In this setting capture is identified as equilibrium behavior between the regulator and the regulated industry.

Regulatory capture might also be promoted by the regulator hedging against mistakes she makes. If the regulator makes a mistake that is against the interest of the regulated, industry members might strongly complain about the regulator. On the contrary, if the regulator makes a mistake against the interest of the public, this will most likely stay unnoticed. As a consequence, it is safer for the regulator to lean more towards the industry. This strategy hedges the regulator against mistakes affecting the regulated (Zingales, 2013).

The arguments discussed here identify capture as a pervasive force that can hardly be mitigated. What makes capture manageable, however, is the degree at which it prevails in an industry. Regulatory capture is not something that exists or does not exist – it prevails by degree. Carpenter and Moss (2013) distinguish between weak and strong capture. Strong capture violates the public interest to such an extent that

the public would be better served with either no regulation or by replacing existing regulation and authority altogether. While this cannot be ruled out it is not the standard in the regulation of financial services. What we observe frequently, instead, is weak capture. According to Carpenter and Moss (2013) weak capture occurs when special interest compromises the capacity of regulation to enhance the public interest, but the public is still being served by the regulation. In such a case capture can be mitigated by exploring the incentives of the special interest group in detail and responding to it. A lot of financial regulation is exposed to weak capture and hence can be cured by altering incentive structures.

Recent research emphasizes the role of social identification as a force that promotes capture (Kwak, 2013; Nicholson, Kiel and Kiel-Chisholm, 2011



and Veltrop and de Haan, 2014). Veltrop and de Haan (2014) use data from two Dutch regulators, De Nederlandsche Bank (DNB) and Autoriteit Financiële Markten (AFM) collected through questionnaires and find that (i) social interactions are negatively correlated to regulator's task performance and (ii) prior tenure in the financial sector is positively correlated to social identification with the industry. As a conse-

quence, regulatory capture related to revolving doors runs through the channel of social identification with the financial sector.

4 Case Study: Trust Preferred Securities

In the preceding section we have analyzed the economic mechanisms and forces that are responsible for the existence of capture. In this section we address the issue of how much capture

measure of public welfare as a benchmark. We avoid these issues by presenting a case study on regulatory arbitrage of U.S. banks that was recently introduced by Boyson, Fahlenbrach and Stulz (2014).

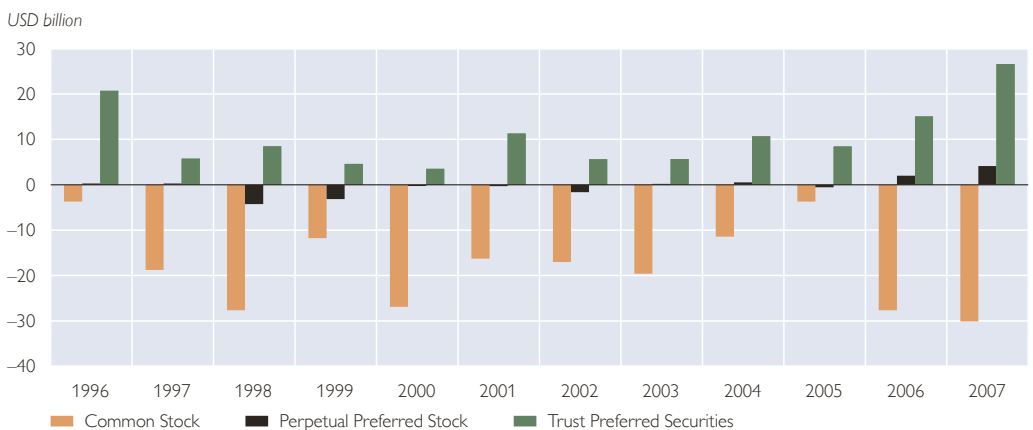
In October 1996 the Federal Reserve Board authorized bank holding companies to use trust preferred securities (TPS) as Tier 1 regulatory capital up to a threshold level. TPS are hybrid capital, i.e. a mix of equity and debt. They are cumulative non-perpetual preferred securities issued by subsidiaries of bank holding companies whose sole asset is junior subordinated debt issued by the bank holding company. Interest on TPS is tax deductible to the holding company and hence generates value through the tax shield. Hence, bank holding companies have an incentive to issue TPS and as this helps to meet capital requirements makes the bank holding company better off. Using TPS instead of equity as Tier 1 capital, however, makes the bank riskier as the capital cushion in the event of an adverse shock has weakened. Chart 3 taken from Boyson, Fahlenbrach and Stulz (2014) demonstrates how U.S.



can be observed in the financial industry. This is a delicate issue because demonstrating existence and degree of capture is very hard, as it requires a

Chart 3

Net Issuance of Common Stock, Perpetual Preferred Stock and TPS between 1996 and 2007



Source: Boyson, Fahlenbrach and Stulz (2014).

bank holding companies raised regulatory capital through TPS and retired common stock during the period 1996 to 2007.

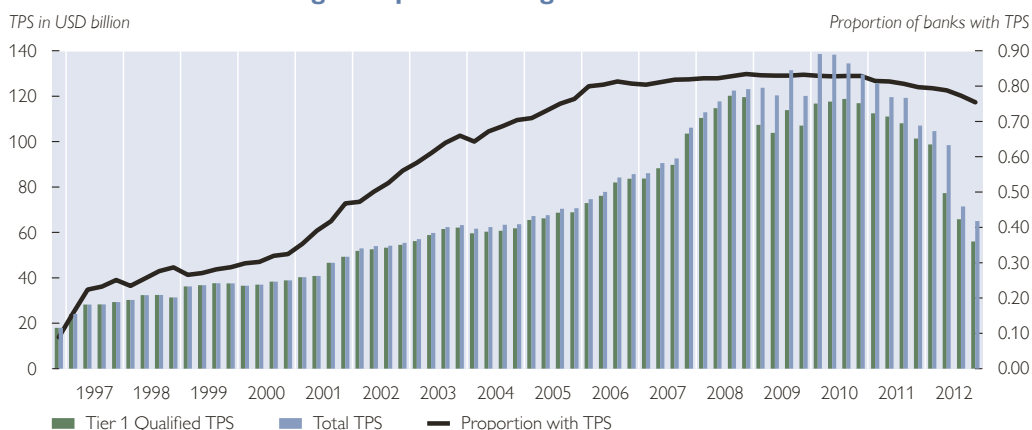
It is obvious that TPS was substituted for common equity throughout the period 1996 to 2007. Analyzing the policy change of the regulator from the point of view of regulatory capture it is important to point to the two following facts: (i) the use of TPS as regulatory capital benefited the bank holding companies as they were able to substitute TPS for common equity and therefore take advantage of the tax shield; (ii) the use of the TPS as regulatory capital was at the expense of the general public as this substitution made the bank holding companies riskier and hence the banking system in general more instable. Hence, it is fair to say that regulatory agents served the interests of the banking industry at the expense of the general public.⁵ To measure the magnitude of this capture it would be necessary to estimate the welfare loss triggered by

the policy change of the Federal Reserve Board. As we lack a sensible aggregate welfare measure it is impossible to quantify the costs of regulatory capture. Instead, we present the total amount of TPS issued and total Tier 1 qualified TPS outstanding together with the proportion of bank holding companies that issued TPS in chart 4. A detailed analysis of how the bank holding companies benefited from the qualification of TPS as Tier 1 capital can be found in the original paper Boyson, Fahlenbrach and Stulz (2014).

The case study presented demonstrates how capture might exist in the financial services industry and how it might affect public interest. This triggers the general question what are the mechanisms that most likely promote capture in the financial services industry and to what extent has there been a change between prior and post financial crisis? Baker (2010) identifies four mechanisms that promote capture and analyzes how they operated prior and

Chart 4

Total Amount of TPS Outstanding and Qualified for Tier 1 Capital Together with Fraction of Bank Holding Companies Using TPS



Source: Boyson, Fahlenbrach and Stulz (2014).

⁵ This is true if we know that the required level of capital before the change was the correct one. Yet, if capital requirements could have been excessive (or appeared so with the knowledge available then) the action taken by the Federal Reserve Board must be seen as a step to correct a mistake.

post crisis in the U.S.A. These mechanisms are (i) lobbying, (ii) degree of political salience, (iii) revolving institutional doors and (iv) intellectual capture. Concentration of wealth in the financial industry gave banks huge political weight prior to the crisis and led to a financial oligarchy that is a big player in political campaign financing. Therefore, the financial services industry has a large influence on the political process including regulation. In terms of political salience Baker (2010) argues that during boom periods the general public does not have an interest in financial regulation making capture, i.e. collusion between the regulator and the regulated, easier. The issue of revolving doors promoting capture was addressed at some length already in section 2. Finally, Baker (2010) writes that in addition to industry capture there is large intellectual capture at work in the financial services industry as regulators and industry experts share the same education in identical Business Schools.



5 What to Do About It?

The preceding analysis has documented that regulatory capture is triggered by forces that are built into the incentive system of the policy process and that its impact depends on the degree of capture, varying substantially across in-

dustries. While weak capture can be mitigated by appropriate policy responses, strong capture by definition cannot. Baxter (2011) identifies a set of channels towards the common good that can be applied in case of weak capture. It needs to be stressed, however, that an effective solution to regulatory capture would have to be complex, multidimensional, and would require a serious attitude toward regulation (Baxter, 2011). The most important channels to mitigate regulatory capture are

- Applying the model of “*tripartism*”: regulatory policy that fosters the participation of public interest groups in the regulatory process.
- Limiting the size and hence the influence of industry players.
- Setting up properly structured and resourced agencies (e.g. tenure of management).
- Introducing better institutional roles for regulators.
- Being aware of the incentives going along with *revolving doors*.

Any process that aims at reducing regulatory capture needs to be built on the obvious, i.e. that taxpayers, regulators, and industry players are all agents that have influence on the outcome of a regulatory process. What needs to be ensured, however, is that any influence must not be disproportionate. Ayres and Braithwaite (1992) have advocated the model of tripartism. Tripartism refers to a regulatory policy that fosters the participation of public interest groups in the regulatory process. These groups have full access to all the information available to the regulator and if possible a seat at the negotiating table. By providing a continued role on the part of state attorneys in the enforcement of consumer protection laws against financial institutions, the Dodd-Frank act has made a step towards tripartism (Baxter, 2011).

A very simple policy response to restrict the influence of the financial industry is to limit their size and power. This is a serious issue as the concentration of wealth in the financial sector has been huge prior to the crisis and has gained momentum since then. The introduction of the European banking union is an important step to deal with this issue but it requires a firm commitment on behalf of all countries in the union and detailed concepts about different stages of the regulatory process including the living will.

Mitigating regulatory capture requires the public to have an interest in the regulatory process, support regulatory actions and give regulators appropriate institutional roles. This must include attractive salary schemes. As pointed out in section 2 a big salary differential between the industry and the

regulator might be the first step towards capture. The public needs regulators who understand the business of the financial industry and have the moral authority to persuade those regulated.

As regulators need to understand the business they regulate, doors between the industry and the regulator cannot be closed. Hence, revolving doors are not only unavoidable but in some cases even desirable if there is need for industry specific human capital as is the case with the financial services industry. What might be a solution, however, is to implement a cooling off period or at least put more emphasis on how to motivate, fund and train regulators. Doing this might uncover some of the incentives that promote capture and hence can actively be avoided.

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