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## PREVENTING ECONOMISTS' CAPTURE

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## **ABSTRACT**

### Preventing Economists' Capture

The very same forces that induce economists to conclude that regulators are captured should lead us to conclude that the economic profession is captured as well. As evidence of this capture, I show that papers whose conclusions are pro-management are more likely to be published in economic journals and more likely to be cited. I also show that business schools' faculty write papers that are more pro management. I highlight possible remedies to reduce the extent of this capture: from a reform of the publication process, to an enhanced data disclosure, from a stronger theoretical foundation to a mechanism of peer pressure. Ultimately, the most important remedy, however, is awareness, an awareness most economists still do not have.

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# Preventing Economists' Capture

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# Preventing Economists' Capture

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When economists talk about regulatory capture, they do not imply that regulators are corrupt or lack integrity. In fact, if regulatory capture was just due to illegal behavior, it would be easier to fight. Regulatory capture is so pervasive precisely because it is driven by standard economic incentives, which push even the most well-intentioned regulators to cater to the interest of the regulated. These incentives are built in their positions. Regulators depend upon the regulated for much of the information they need to do their job properly. This dependency creates a need to cater to the information providers. The regulated are also the only real audience of the regulators, since taxpayers have all the incentives to remain ignorant. Hence, the regulators' on the job performance will be naturally defined with the regulated in mind, pushing the regulators to cater to the interest of the regulated. Finally, career incentives play a big role. The regulators human capital is highly industry specific and the best job for people holding that specific human capital are with the regulated. Hence, the desire to preserve future career options makes it difficult for the regulator not to cater to the regulated.

If these are the reasons why regulators are captured, it is not clear why economists are not captured as well. While not all data economists use are proprietary, access to proprietary data provides a unique advantage in a highly competitive academic market. To obtain those data academic economists have to develop a reputation to treat their sources nicely. Hence, their incentives to cater to industry or to the political authority that controls the data are similar to those of the regulators. Second, outside of academia the natural audience of their work is either business people or the government officials applying some of that knowledge. The popularity and support among business people or the government gives credibility to a piece of research and the

person who did it. Even if no researcher purposefully caters to business or the government, this selection will ensure that the most popular and successful researchers will be those who cater to business or the government. Finally, academic human capital is highly specific. Opportunities in consulting and careers outside of academia are not equally distributed. Economists who cater to business interests clearly have a larger set of opportunities.

Another, more subtle, source of bias arises from the publication process. In economics authors cannot do multiple submissions contemporaneously and manuscripts are subjected to many lengthy revisions. This extenuating process maximizes the power of the editor vis-à-vis the author. Thus, if a few editors are captured, this effect spreads out through the entire profession.

In sum, economists face a pressure very similar to regulators, why shouldn't they be equally captured? In this paper I develop these arguments and provide some evidence consistent with the pervasiveness of capture of economists by business interests.

As for regulators, economists' capture is far from complete. There are plenty of examples of academics at odds with the industry wants and even of entire theories that are at odds with the interest of the industry. For example, the market efficiency theory is not very congenial to the finance industry. What are the limits to capture in academia? One factor that can reduce capture is access to data that is independent from industry. Macroeconomists who rely on government-provided data or financial economists who rely on publicly-available stock price data are less likely to be captured than researchers doing filed experiments who have to obtain confidential data from companies. A second factor is the ability to speak to a broader audience. Economists who write for the larger public, like Stiglitz and Krugman, are less likely to be captured by business. In fact, they might suffer the opposite problem: there is so much demand for economists criticizing business that they might cater too much to that crowd. Finally, some economists' human capital might not be easily sellable to industry, reducing for these economists the attractiveness of catering to business. *Ceteris paribus* a foreign economist with a thick foreign

accent is less likely to be asked to be an expert witness or to find a job in the industry, except in very quantitative (and generally not very lucrative) positions. These economists are less likely to cater to business interests.

To help prevent capture I propose several remedies. First, a reform of the publication process, allowing multiple contemporaneous submissions and restricting the outside activities of editors. Second, a data policy for field experiments and proprietary datasets, which minimizes the ability of companies to influence the published results of this research. Third, a mechanism of shaming of academic economists who take “unreasonable” positions in the media or in expert testimony. Although academic writings are scrutinized during expert testimonies, expert testimonies are not scrutinized by the academic community. It is time for this to start.

Ultimately, however, the most important remedy to reduce capture is awareness by economists that this risk exists. Until we admit that we can be captured by vested interests as much as regulators, the risk of capture cannot be addressed. For this reason, the most important remedy is to start talking about this problem.

The rest of the paper proceeds as follows. Section 1 reviews the forces that lead to regulatory capture. Section 2 applies the same logic to economists. It also provides some empirical evidence in the context of the debate on executive compensations. Section 3 presents some mechanisms through which capture can be reduced. Conclusions follow.

## 1. The forces that lead to regulatory capture

Starting with Olson (1965) and Stigler (1971), the economic literature on regulatory capture rely on two premises: regulators’ opinions can be influenced and not all groups have equal opportunities in influencing them. In this section I will review the main reasons identified in this literature of why regulators are captured. This section does not claim any originality, but it is designed to set the stage for the analysis of how these same forces can capture economists.

From bribes to threats, there are plenty of illegal ways in which regulators can be influenced (Del Bo and di Tella, 2003). I purposefully ignore these channels not because they are not important in general, but because they are less interesting if we want to study how to prevent capture in the United States. Illegal methods are less pervasive here and are easier to fight: it is sufficient to enforce the law.

When we restrict our attention to legal means, there are three main channels through which regulators' opinions can be influenced: career concerns, information, and environmental pressure.

### *1.1 Career concerns*

Outside interests can influence the career of a regulator by offering (implicitly or explicitly) better paid jobs to regulators outside of the regulatory arena. This channel only works when the typical wage prevailing in the outside organization is significantly higher than the one prevailing in the regulatory arena. This is not always the case. For example, NGOs do not pay large salaries, preventing them from using this channel to influence the regulators.

This form of regulatory capture does not require an explicit *quid pro quo* between regulator and regulated, where a job is offered in exchange for a favorable decision. The source can be much more legitimate and thus pervasive. Outside interests may hire former regulators because of the valuable skills they have accumulated on the job. For given skills, however, outside interests will prefer former regulators who seem to understand better their interest and are more sympathetic to them. It is hard to imagine, for example, that an investment bank would hire a regulator who has expressed very negative views of the economic function of derivatives. Given these concerns, the regulators will try to signal their pro industry view with decisions that favor the regulated.



Even if a regulator is not interested in getting a job outside of the regulatory arena, outside interests can affect her career inside the regulatory world. A key assumption in the economic theory of regulation is that large and dispersed constituencies remain poorly informed about regulatory issues. Because each individual is affected so little by regulatory decisions, it is not in his interest to invest in acquiring information on these issues. This rational ignorance theory (Downs (1957)) implies that large and dispersed constituencies do not follow regulatory decisions and thus do not provide any feedback on their actions. As a result, the only parties that provide outside feedback about the performance of a regulator are vested interests. They can easily undermine the career of a regulator by spreading false rumors about her level of competence.

If, as advanced by Hilton (1972), the main goal of a regulator is to avoid “squawking”, then regulators can be affected by political complaints by the firms. A smart politician, however, will recognize that squawking by industry is a sign that the regulator is effective and could reward her for this. A more sophisticated model is provided by Leaver (2009). Regulators make mistakes. They know, however, that when they make a mistake against the vested interests in their industry, these mistakes are going to be exposed as such, and will impact their reputation. By contrast, when they make mistakes in the opposite direction these mistakes will not be so easily exposed. Hence, in doubt, they prefer to make a mistake in favor of the regulated, rather than against it.

In addition, regulators may want to buy some slack by being purposefully more biased in favor of the regulated. Industry will not expose mistakes of a regulator if it thinks that overall she is good for them. For example, the feminists did not attack President Clinton for his affair with an intern very much information, environmental pressure, and because they thought that overall he was good for them.

## *1.2 Information*

Regulators need a lot of industry-specific information. Without this information they cannot do their job properly, risking embarrassing mistakes. Much of this information is possessed by the regulated. Unless there is an explicit disclosure requirement, the regulator has to bargain with the regulated to obtain that information. This creates an easy opportunity for the regulated to “trade” information in exchange for favorable treatment. This quid pro quo is generally implicit. The regulator tries to establish a cooperative environment with the regulated. To support this cooperation they have to make concession and they expect cooperation from the industry in terms of information. Both sides operate under the implicit threat of withdrawing this cooperation.

An example of this exchange is provided by Mahony (2001). In drafting the 1933 and 1934 legislation, the Roosevelt administration needed a great deal of information in a short period of time. The traditional investment banks, already well connected politically, offered to provide this information. In exchange, they acquired some ability to influence legislation and were left largely untouched by the Pecora Committee investigations.

## *1.3 Environmental Pressure*

Regulators do not operate in a vacuum. They generally possess industry-specific human capital, which has been accumulated through formal training and years of work in a specific industry. This specialized human capital creates a natural interest in supporting activities that use this human capital. A person specialized in derivative trading, for instance, is likely to be terribly impressed with the importance and value of derivatives, just as a nuclear engineer is likely to think nuclear power can solve all the world’s problems. If most of the regulators were picked from among nuclear engineers, it would be only natural that the country would soon fill with nuclear plants. In fact, we have an example of precisely that in France. Due to complicated

cultural reasons, an unusually large portion of the political and bureaucratic elite in France is trained in engineering at the Ecole Polytechnique — and France derives more of its energy from nuclear power than any other nation.

Compounding the problem is the fact that regulators naturally rely on their network of trusted friends to gather information “from the outside.” If everyone in that network is drawn from the same milieu, the information and ideas that flow to policymakers will be severely limited. A revealing anecdote comes from a Bush Treasury official, who noted that in the heat of the financial crisis, every time there was a phone call from Manhattan’s 212 area code, the message was the same: “Buy the toxic assets.” Such uniformity of advice makes it difficult for even the most intelligent or well-meaning policymakers not to be influenced.

#### *1.4 Asymmetries*

All these potential sources of biases would not be very problematic if all the interests had equal ability to lobby and influence the regulators. The economic literature on regulatory capture relies on a fundamental asymmetry in the influence of various groups, since in a perfectly competitive world competition among conflicting interests will lead to the efficient outcome (Becker, 1983). The source of this imbalance of power has to be found on the small size (both in relative and in absolute terms) of many players. As Olson (1965) argued, relatively small players capture a small fraction of the benefit of lobbying, while they have to pay the full cost. In a world where coordination is costly, they will have fewer incentives to lobby than the large players, who internalize a significant fraction of the benefit of lobbying without having to pay any coordination cost. Besides the dispersion issue, a limited size is by itself an obstacle to lobbying. Lobbying has some fixed costs, which cannot be amortized if the market size is too small, even if the market is controlled by a monopolist. As a result, lobbying is highly convex in the size of firms (Igan et al. (2011)).

Besides size, profitability is an important determinant of lobbying intensity. More profitable companies can afford to pay more to lobby and they have more to protect. For example, public notaries in Italy (and in all French law countries) are limited in quantity and earn substantial rents. As a result, they have organized a powerful lobbying effort to justify the rationale of their position. You do not see any similar effort in the States, where public notaries are clerks and earn no rent.

## 2. How these forces capture economists

Now that we have reviewed the forces that can capture regulators, we can analyze to what extent these forces can capture the economic profession as well. Since economic academic research spans across many different fields, a generic captor does not exist. Both the captor and the degree of capture vary across topics. To fix ideas, I will frame most of the examples in terms of the debate on executive compensations. I use this example not because it is the most egregious. In fact, even economists have written about the distortions in executive compensations caused by corporate governance problems (e.g., Bertrand and Mullainathan (2001)). Thus, the profession is not all “captured”, as well as all the regulators are not captured. What makes this topic particularly suitable is precisely the fact that the profession is not entirely aligned on one answer and that, at least in theory, you could argue successfully on both sides of the debate. You could argue that the market for executives is a competitive one, where they get paid what their marginal productivity is or you can argue that the market is distorted by corporate governance problems. It is precisely this variety that allows me to identify better the subtle biases that are present in the profession.

## *2.1 Career Concerns*

As for regulators, vested interests can impact economists' careers along two dimensions. They can provide opportunities for employment (either full time or part time) outside of academia and they can influence the career of a researcher inside academia.

### *2.1.1 Career Outside of Academia*

Let's start with the easier channel: employment opportunities outside academia. Firms can hire academic economists for top level positions, as a board member, or as a consultant. Regardless of the job they are hired for, a critical position on the level of executive compensations does not help. One reason is that it might signal an anti-business bias, which is detrimental in any business job. It is also counterproductive if the economist ends up in the top position, since it might negatively impact his own compensation. Finally, it makes him less appealing to other CEOs who might want to have him on their board, since it might spell trouble for them if they get him on a board. Hence, if they are interested in future outside appointments economists have strong incentives to justify the level of executive compensations.

Most economists, however, do not leave academia and are not appointed to any board. The most they do is to work as expert witness in various firms. Since there is not much litigation on this issue, it is not ideal to discuss the potential biases that arise from this activity (or from the desire to qualify for this activity). In addition, most economists will argue that the adversarial nature of the litigation process is the best guarantee that it will not lead to biases. For every plaintiff, there is a defendant, thus expert witness positions should be able to offer an opportunity for everybody, on both sides of every issue.

Unfortunately, this is true only in principle. In most cases there is quite an imbalance between plaintiff and defendant. More often than not, plaintiffs are operating on a contingency basis, bearing the cost of all expenses. As a result, plaintiffs tend to be much more cautious than

defendants in spending large amount of money in expert witnesses. By construction defendants are well endowed (if they were not, the plaintiff will not go after them). Thus, they have a lot to lose and, hence, are more willing to spend large sums of money to protect their interests in court. Thus, consulting opportunities are not equally distributed across both side of the same topic. It pays more to develop a reputation for being an apologist of powerful interest than to support plaintiffs' cases.

Furthermore, lawyers like consistency from the expert they use, since this minimizes the chances of a damaging cross examination. Thus, academics who want to play actively in this market have an interest in sticking to a very clear position in all their writing, including their academic writing, which is often read by the opposing counsel. This is the opposite of what the academic pursuit of truth will require.

### *2.1.2 Publish or Perish*

A more challenging task is to establish a link between outside pressures and success in academic careers. An academic career is mostly determined by a person's ability to publish in peer review journals and to have her articles cited.

Unlike in the law arena, where top journals are edited by students, in economics and finance major journals are peer reviewed. Hence, the ability to publish is mostly determined by editors and referees. Editors have probably the greatest power in deciding whether to publish a paper or not. They choose the referees, who are generally very predictable in their taste, and reserve the right to overrule them. I am very confident that editors receive no form of direct pressure to publish articles that are more pro-business interests. Yet, this does not mean that the publication process is free from biases and that academic careers are completely free of any outside influence.

The lack of bias in the publication process depends crucially upon the lack of bias of the editors or, at least, the diversity of biases of the editors across major journals, since there are multiple outlets and thus an author can shop around. Unlike in law, though, the search process is impaired by the prohibition to submit the same paper to multiple outlets contemporaneously. Combined with the relatively long review time and the multiple rounds required, this process gives quite a bit of power to the editor to massage papers in the direction they prefer. If an assistant professor who is going up for review soon is asked at the last round of a long review process to modify slightly the conclusions to make them more palatable to a certain audience, would he refuse? Probably not. Not only does this action bias the conclusions of one paper, but it projects a perception that to publish in that journal one has to reach the “right conclusions.” Hence, researchers who want to publish in that journal would start tilting their conclusions in the right direction. In equilibrium, the editor does not have to exercise any arm twisting, because all the distortion takes place before the first submission and is done voluntarily by the researchers to reduce the risk of seeing their paper rejected.

Even if impaired by this restriction on contemporaneous submission, competition across journals helps in reducing idiosyncratic biases among editors. Yet, it cannot help when this bias is generalized among editors. Suppose, for instance, that all editors sit (or want to sit) in corporate boards. Thus, they are all biased in favor of papers that justify large compensations to executives and board members. Similarly, imagine a hypothetical paper that shows that expert witnesses are for sale and they bias their opinions for money. If most of the editors of the major journal do a significant amount of expert witness consulting, do you expect that they will be absolutely neutral in judging the paper?

### *2.1.3 An Empirical Analysis*

This is just a hypothesis. To test whether there is any bias of this nature in the publication process I looked at publications in the area of executives’ compensation. One of the main

problems in doing such an analysis is selecting the appropriate sample. On the one hand, to choose a sample that is not affected by the potential biases of editors, I cannot choose just published papers. On the other hand, if I do not have any measure of quality, the analysis is meaningless. For this reason, I start from a sample of the 150 most downloaded papers from the Social Science Research Network (SSRN) before 2008 using the search key “executive compensation”. SSRN downloads have the advantage that are not affected by editors. Yet, for published papers they are highly correlated with citations and thus are a (noisy) proxy of quality. I chose pre 2008 articles to exclude the crisis and to give sufficient time for the papers to be published.

After dropping a few survey papers, I read all the abstracts and classified them on the basis of the conclusions I could draw from their results. I labeled as “positive on level” the papers that find that the current level of compensation is justified or even too low. For example, if an abstract concludes that “the evidence supports the optimal-contracting argument over the rent-seeking argument”, I classify the paper as positive on level. I labeled an article as “negative on level” if it argues that the current level of CEOs’ salaries is too high. For example, a paper that “explains how managerial influence might lead to substantially inefficient arrangements that produce weak or even perverse incentives” is classified as negative. Overall, 15% of the papers fall in the first category and 21% in the second, while the rest are neutral (see Table 2). I do the same regarding the desired level of pay for performance sensitivity: 12% of the papers argue that the sensitivity should be higher, while 10% that should be lower. I consider a paper positive on the level of compensation and/or on the level of sensitivity as more pro-business papers, while one that advocates a lower level of compensation and/or a lower level of sensitivity as a more antibusiness paper.

In Table 3, I compare the pro-business and antibusiness biases of major outlets. Articles published in major economic journals (such as the JPE, QJE, and AER) tend to have a clear pro-business bias with respect to the rest of the sample: they have significantly more conclusions that



are positive on the level of compensation, significantly less that are negative on the level, and significantly less that are negative on the sensitivity. Managerial reviews tend to publish fewer articles where the conclusion is compensation should be lower and fewer articles suggesting sensitivity should be lower. The finance journals and law reviews do not exhibit any significant bias. One possible explanation is that law reviews are edited by students and finance journals have a much faster turnaround, which reduce the capture by the editor.

Even if editors can capture, why should they? And in what direction? Is it true that industry contacts bias researchers in a particular direction? To test whether people who sit on corporate boards have a disproportionately pro-management attitude, I looked at a new survey created by the University of Chicago Initiative on Global Markets (IGM), of which I am a director. The IGM asks a panel of expert economists—“senior faculty at the most elite research universities in the United States,” as we say on our Web site, chosen “to be geographically diverse, and to include Democrats, Republicans and Independents as well as older and younger scholars”—two policy-related questions each week. (Since I am one of those experts, I omit my own responses to avoid contaminating the results.) It turned out that experts who served on a corporate board were four times more likely than those who didn’t to disagree with the statement “The typical chief executive officer of a publicly traded corporation in the U.S. is paid more than his or her marginal contribution to the firm’s value.” Experts who served on a corporate board were also four times more likely than those who didn’t to disagree with the statement “Mandating that U.S. publicly listed corporations must allow shareholders to cast a non-binding vote on executive compensation was a good idea.”

Clearly, this correlation does not prove causation. It is possible, for instance, that the people who sit on corporate boards understand these issues better and are therefore likelier to disagree with both statements. But the survey also asks people to state their confidence in their responses, and board members claimed no greater confidence than the rest of the sample—as they should have if they had superior knowledge.

Another possibility is that the direction of causality is reversed: it is not that joining corporate boards influences people's opinions, but that people with business-friendly views are likelier to be asked to join boards in the first place. Yet this wouldn't absolve a regulator in an economist's eyes! If an economist were confronted with evidence that regulators with more pro-management beliefs had better career opportunities, she would conclude that "on the margin," regulators had an incentive to tilt their beliefs in favor of management. Why should the conclusion be any different if the subject is an academic economist?

Academic success is not only driven by number of publications, but also by their impact. Hence, I want to see whether articles with more pro-business conclusions are more likely to be cited. Once again, I need to control for quality. As a measure of quality I use the actual number of SSRN downloads. I use downloads because they are not affected by editors' choices. Table 4 reports the results. Controlling for SSRN downloads, articles that are positive on the level of compensations receive more cites (measured as Google cites, but the results are the same if I use SSRN cites). Similarly, articles that suggest that sensitivity of pay to performance should be lower receive less cites.

Overall these results suggest that the optimal strategy for a junior faculty who works on executive compensations and wants to maximize her chances to get tenure is to write articles that show that the level of compensation is appropriate and the sensitivity to performance should be increased.

#### *2.1.4 Biases at the Promotion Level*

Thus far, I have only looked the impact that editors' biases can have on a professional career. Promotion to tenure, however, is not just determined by the number of top publications and their cite count. Other factors play a role. Harvard Business School, for example, explicitly mentions impact on the world of business as one of the criteria to grant tenure. Other schools are

not so explicit, yet “intangibles” clearly play a role. To what extent does pro-business bias help in promotions above and beyond what contribute to get papers published?

One potential source of bias comes from the fact that universities are major fund raisers. Fortunately, in the United States (but not necessarily in other countries) there are Chinese Walls to protect academic integrity from being corrupted by money. Donations cannot have constraints that impinge on academic freedom. A donor, for example, cannot name the holder of the chair s/he donated, nor indicate preferences on who should hold it. Similarly a grant cannot be given with restrictions on the type of conclusions that need to be reached. Similar restrictions, however, apply for Political Action Committee, whose contribution cannot be tied to a particular position of the politicians. Nevertheless, we do think political donations affect the politicians who appoint the regulators. Hence, career-driven regulators take this bias into consideration when they make decisions. Why should it not be the case that donations influence Deans who in turn can influence promotions? If this is the case, why wouldn't faculty internalize this bias in their writing? The only difference is that, once they have tenure, faculty are not subjected to this pressure any more, while regulators continue to be.

Documenting this bias is a very difficult empirical task, beyond the scope of this chapter. Nevertheless, I would like to provide a small piece of evidence consistent with this bias. Fund raising considerations are stronger in business schools than in other parts of academia. Hence, if this bias existed, it would be more pronounced among business school professors. Therefore, I can use the above sample of executive compensation articles to see whether business school professors are more inclined to take positions pro-business in their articles. Since they are subjected to the same editors' biases, any difference could be attributed either to an internalization of some bias in promotions or to a selection of more pro-business types into business schools.

Table 5 shows that when none of the authors of an article works at a business school, the article is significantly less likely to be positive on the level of executive compensations and significantly more likely to be negative. I find no effect on the pay to performance sensitivity.

Since Lucian Bebchuk, a Law Professor, has co-authored many articles that are critical of executive compensations and appear in the top 150 downloaded (7%), I want to make sure that the effect is not just a Bebchuk effect. To this purpose in the second part of Table 5 I add a dummy equal to one if Bebchuk is a coauthor of the article. Not surprisingly, the Bebchuk dummy is highly significant with the expected sign. While it reduces the significance of the non-business school dummy, it does not eliminate the effect.

This effect could just be a selection effect. Only pro-business people end up working in a business school. Once again, this is no different from the regulatory arena. Only pro-business people end up in regulatory positions, since they have to work with business a lot. Whether it is selection or actual distortion does not matter a great deal. Either way, industry can count on a faculty very attentive to its interest.

### *2.1.3 Economists not interested in money*

As I mentioned earlier, the biggest difference between academics and regulators is that academics have tenure. Thus, the career concerns described thus far apply only up to tenure. After tenure, there might still be monetary considerations, but they might not be paramount. While the idea of an economist not interested in money might sound like an oxymoron, these people do exist. Academics (even academic economists) are not motivated by money alone. In fact, one could argue that people who choose the academic career are selected among those who value other dimensions (like the ability to influence other people's ideas and fame) more than money. Yet, this same exact counterargument applies to regulators. People choosing a regulatory career generally have more the public good at heart, then people going into business.

As for regulators, however, this argument does not exempt economists from the risk of capture. First of all, the fact that they have other motivations does not mean that money does not enter their utility function. *On the margin*, career concerns and monetary rewards should matter. Most importantly, even if economists are completely insensitive to monetary rewards and only motivated by fame and desire to influence the outside world, they can be easily captured by vested interests. It is enough for these interests to offer more influence and fame, which they can easily do.

Let's consider an example. Suppose that banks need to be regulated to curb the too-big-to-fail problem. Suppose there are two methods. One that solves the problem completely, but it is very costly for banks. The other that provides only a partial solution, but it is much less costly to banks. Which approach would an economist, who has no interest in money, but is solely motivated by the desire to be famous, advocate? Obviously, the second one. By advocating the first one, she would be considered unrealistic and "out of the real world." She will not be invited at major conferences sponsored by banks or by regulators who are in cahoots with banks, her papers would probably be rejected from the major economic journal where economists who are more attuned with the industry needs will referee her paper and publish their "more realistic" schemes. When some version of the inferior scheme is approved, the academic economists first proposing it will receive fame and glory, while the advocate of the right scheme will be ignored. When the scheme, many years later, will show its shortcomings, the fault will all be attributed to the politicians who implemented it wrongly. The academic supporters will still enjoy the reputation for "having done something."

In fact, these concerns start to be internalized in the economic discussion, in the form of political economy constraints. Academic analysis of policy issues is not satisfactory if it does not incorporate the political constraints imposed by lobbying. In other words, models that do not consider sufficiently the power of vested interests are not acceptable. In a Brookings Papers meeting I was criticized for my political naiveté, because "to take public positions on important

policy issues without knowledge of the political process is a big mistake,<sup>1</sup> where “political process” should be read as political constraints imposed by lobbying.

## *2.2 Information Needs*

A late colleague of mine used to say that since entomologists do not have to socialize with bugs, he did not have to socialize with businessmen. Entomologists, however, cannot socialize with bugs. If they could, are we sure they would not? The entomologists who socialize will be able to understand better the world of insects, collect better data, and, most probably, write better papers. I suspect that if socialization with bugs was possible, academic competition would lead entomologists to spend a lot of time with bugs. The real question is whether the bugs would want to socialize with entomologists. Bugs do not have much choice, but business people do. Why would business people spend some of their very valuable time with us? We would like to believe that it is because they learn a lot from us. It could be the other way around: we learn from them and they know it and take advantage of it to influence us.

Researchers need data. Often a proprietary dataset can make a researcher’s career. What are the incentives for a business to share this data? Generally, the first concern is not to damage the business in any possible way. Thus, any business protects itself with some right of refusal, if the data show some evidence that is negative for the business. Anticipating that controversial evidence could be prevented from being published, researchers will only focus on either non-controversial topics or topics where the results are likely to cast the company that provided the data in good light. This implicit agreement is not unique to academic economists. Biographers know that to have access to confidential information about their characters, which enhances the quality of their work, they need to develop a reputation to slant biographies positively. A bad biography and all the future potential characters will refuse them access.

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<sup>1</sup> Brookings Papers on Economic Activity, Spring 2009, page 76.

The easiest place to see the importance of this quid pro quo is with Harvard case studies. The most typical cases are field cases, based in part on private information provided by the company to the Harvard professor who is writing the case. The explicit quid-pro-quo is that field cases require approval by the company before release. As we describe in Dyck and Zingales (2003), some companies actively manage their information release to shape the cases. "I learned that Enron was upset with my public-source case on the conflict surrounding the company's investment in India," -- recalls HBS professor Louis Wells -- "After the second time the case was taught, someone from the administration approached me, told me of the company's concerns, and asked if anything could be done about it. Another faculty member was, I was told, writing a field-based case on the same subject. It was suggested that I might consider teaching the richer field case, if it fit my teaching objectives. Meanwhile, I sent my public-source case to Enron for comment. In the end, I removed the public source case from the system and adopted a shortened version of the field case, which was indeed richer in information and enabled me to accomplish the original teaching objectives." <sup>2</sup>

An implicit quid pro quo takes place even in academic research, and it is much more pernicious as the importance of field experiment increases, because the power of companies over researchers increases. A younger colleague, for example, was offered the opportunity to conduct a field study with a pay-day loan company. She was offered this option because she had written a paper with a very positive view of payday loans. While the company had no saying on the conclusions of the paper, they had to approve the study. Most importantly, if the study had found some embarrassing result and this result was properly emphasized in the paper resulting from this study, my colleague's chances to continue collaborating with the payday loan company (or for what matters any payday loan company) would have been seriously in doubt. Nobody is doing anything improper, still the type of studies that will be published will tend to cast pay day loans in a good light.

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<sup>2</sup> A. Dyck and Luigi Zingales, "The Bubble and the Media" in Cornelius, Peter and Kogut, Bruce (eds.) Corporate Governance and Capital Flows in a Global Economy, New York, Oxford University Press 2003.

### *2.3 Environmental Pressure*

Akerlof and Kranton (2010) highlights that people are not only motivated by monetary incentives. They can exert a great deal of effort when they identify with the values and the culture of an organization or a subgroup. Thus, capture can take place not just through monetary payoff, but also through the desire to belong to a certain group a person identifies with. The more homogenous business elites are, the more severe this problem is, because the pressure to conform becomes bigger.

Many academic economists, and in particular business professors, have a form of admiration and envy toward successful business leaders. Like military strategists, who never fought a war, seek credibility and support from generals who won important battles, the same is true for academic economists. The problem is that triumphant generals do not need military strategists, while business leaders can use academic economists because they help provide political consensus and hence profits.

### *2.4 Asymmetries*

As for regulators, all these potential biases would be irrelevant if all the interests involved had the same power to influence. Unfortunately, for economists this is very unlikely to be the case. To the extent economists are influenced by potential future employment or board opportunities, bigger companies are disproportionately more powerful, since they can provide more prestigious positions and better paid ones (salaries are highly correlated with size). To the extent economists are influenced by future consulting opportunities, bigger companies have disproportionately more difficult (and interesting) problems to resolve (Garicano, 2000) and they can afford to pay more, since any solution can be applied to a much larger basis. The same is true if the attractive career prospects are in the expert witness business. Bigger companies they have more at stake and hence they can afford to pay more to defend their interest. If a source of economists' capture



derives from the information the industry has, bigger players have more and more valuable information and are better able to deliver it.

Thus, as it is the case for regulators, the type of pressures economists receive is not unbalanced.

### 3. Preventing Economists' Capture

Given the similarity of the mechanisms that lead regulators and economists to be captured, some general remedies can work for both. I will briefly mention these, while focusing most of my attention to the mechanisms specific to the academic market.

#### 3.1 *General Measures*

##### 3.1.1 *The Power of the Media*

The reason why small vested interests dominate the political agenda is that it is rational not to become informed. When a new bankruptcy law is considered, most voters do not pay attention. The probability that it will affect them personally is very low. Hence, it is not worth their time to become informed on what the issues are. If voters remain ignorant about their own interest, it does not pay off for any politicians to try to protect them.

Media, however, reduce the cost of getting informed, by collecting, verifying, and summarizing the facts (Dyck et al, 2008). By repackaging information in a way that makes it entertaining, media are also able to overcome the private cost that individuals face in learning the gathered information. Even if it is not in each individual's monetary interest to become informed, the utility benefit provided by the entertainment component can overcome the cost of the time spent in absorbing the information.

Making citizens informed does not only change the incentives of the politicians, it could also change the behavior of the chief executive officers of the firms doing the lobbying. Why did U.S. producers of canned tuna choose, at very significant cost, to change the way they fished for tuna to protect the dolphins? Why is Nike so careful in avoiding the use of child labor when it manufactures its products abroad? In both cases it was intense media coverage that made these companies change course.<sup>3</sup>

Most CEOs care about their public image. It is not pleasant to be labeled “dolphin killer” or to be considered responsible for child exploitation. It does tarnish their image and the brand image of their company, which they spend so much money to create and maintain. For this reason, they are willing to pay attention to citizens’ concerns, even if these concerns do not impact immediately the demand for their products. In the same way, they could be shamed if found to influence regulators or academics too much.

Media can also reduce the capture of economists. If there is a group that is sensitive to its own public image, these are academics. Since most of them are motivated by fame and impact, a negative public image is extremely costly. Thus, media expose of the academic world, like the one done by the movie “Inside Job” are extremely useful in curbing the potential effects of capture.

### *3.1.2 Indirect Benefits of Antitrust Enforcement*

As I mentioned, the problem is not the fact that business interests can have an impact on academic research, the problem is that in this influence game the playing field is not leveled and

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<sup>3</sup> On March 8, 1988, all the major U.S. networks broadcast a tape of a Panamanian tuna boat, the Maria Luisa, killing hundreds of dolphins while fishing for tuna. Building on public outrage, the Earth Island Institute, Greenpeace, and the Humane Society launched a boycott of tuna. Restaurant chains took tuna off the menu and school boards across the country stopped using tuna until it was “dolphin safe”. On April 12, 1990, Heinz announced that it would only sell dolphin-safe tuna. Within hours the two other largest tuna producers made a similar commitment. A similar story applies to Nike after the June 1996 issue of Life magazine carried an article about the use of child labor in Pakistan to produce Nike’s soccer balls.

some interests are too powerful vis-à-vis others. Disparities in power arise from disparities in size and concentration, two variables that can be affected by antitrust policy. Thus, a strong antitrust enforcement has two indirect benefits. By reducing size and concentration, it levels the playing field in the influence game. In addition, by breaking monopolies it breaks the homogeneity of interests, creating some competition among conflicting lobbies.

### *3.2 Specific Measures*

Besides general measures, there are several remedies that can be applied specifically to the academic market.

#### *3.2.1 Shaming Economists Without Principles*

A very useful self-defense against lobbying pressure is adherence to principles. Principles force economists to be coherent through time and through situations. While not all economists adhere to the same principles and we cannot certainly expect that they will, the coherence with some principles, whatever they be might be, is useful. Judges, for example, motivate their decisions on the basis of legal principles and precedents. While they have the flexibility to adapt the principals and the precedents to a particular contingency, nevertheless legal principles and precedents tie their hands.

In the same way, if economists had to justify on the basis of principals and data all their major public policy statements as well as their expert testimony, they would be less malleable to industry pressure. This defense would be enhanced if they could be shamed by colleagues on the adherence to these principles. An economist who always opposes government intervention, but then makes an exception when the government bails out a certain industry where he has a direct interest could be easily exposed to the public ridicule.

Unfortunately, shaming is a public good, at least as far as the good shaming (i.e., the shaming aimed at keeping people honest) is concerned. When it involves politicians and celebrity, it can pay off commercially (think about the program “Keeping them Honest” run by CNN). But when it comes to economists, this hardly seems a viable commercial enterprise. For this reason, this wall of shame should be organized by a professional association or some public interest NGO.

Ideally, this wall of shame would also penalize economists who have compromised their principles for money or have made major mistakes. For example, in years past many famous economists wrote papers commissioned by Fannie Mae and Freddie Mac. In some of these papers, they were going as far as saying that “This analysis shows that, based on historical data, the probability of a shock as severe as embodied in the risk-based capital standard is substantially less than one in 500,000 – and may be smaller than one in three million.”<sup>4</sup> Still, the authors do not seem to have suffered any consequence of these wrong statements. In fact, one of these authors was promoted director of the Office of Management and Budget and later hired as Vice Chairman of Global Banking at Citigroup.

### *3.2.2 Mandatory Disclosure of Expert Witnesses*

To facilitate public shaming and make more difficult for economists to be captured, it will be useful to mandate the disclosure (possibly with a delay) of expert witness testimonies, even when a case settled. Knowing that their testimony will be read by colleagues and checked by students, it will increase the reputational cost of lying. The possible delay will protect the expertise of the academic from being immediately diffused, but it will not prevent the reputational cost of defending positions most academic would consider untenable.

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<sup>4</sup> Joseph E. Stiglitz, Jonathan M. Orszag and Peter R. Orszag, “Implications of the New Fannie Mae and Freddie Mac Risk-based Capital Standard,” Fannie Mae Papers Volume I, Issue 2 March 2002, pag. 6.

### *3.2.3 A Data Code*

The beauty about empirical research is that you never know what you find. In fact, the surprising results are the most interesting ones. This is precisely the risk companies do not want to face. Thus, when they disclose data, they generally disclose it with some strings attached. One common string is that they can prevent the publication of the data if the results are damaging to the company. Even if there is not an explicit agreement of this type, there is often an implicit agreement in this sense. Knowing the cost of getting the work buried, researchers do not even go and look where potential problems can arise. Hence, they only look for certain results.

If everybody knows that is the case and is able to properly discount this important selection, it is not a problem. If I can only report when a coin flip yields a tail, others can easily infer when it yielded a head, as long as they know of how many times I flipped the coin. If only tails are reported and published, but I do not know how many coin flips have taken place, then it is much more difficult to infer the proper picture of the underlying phenomenon, especially when some economists will dare to say that “tail” is an established fact, since all the published papers agree that coin flips yield tail.

How to avoid this severe distortion? By imposing two disclosure requirements at the submission stage. The first is a disclosure of the type of agreement with the company that provided the data at the time the data were granted (or the permission to conduct the filed study was granted). While the disclosure of explicit agreements cannot prevent implicit agreements to the contrary, a proper formulation of the contract can make them more difficult.

The second disclosure is the number of related studies who were conducted and have not been published. This is tantamount to disclosing the total number of coin flips, so that other researchers can correctly infer how many times the dog did not bark.

Another way to reduce this potential distortion is to increase the disclosure requirements and to create more public dataset. It is not a coincidence that the emergence of the market efficiency theory in finance, which was strongly at odds with the interest of the financial industry, coincides with the creation of the Center of Research on Security Prices at the University of Chicago, which gave access to data to all researchers.<sup>5</sup>

### *3.2.4 A New Governance of the Publishing Market*

In economic and financial journals editors hold a lot of power vis-à-vis authors, especially untenured authors. A rejection of a paper after three rounds can easily make a difference between promotion and not. Most editors do not abuse of this power. Nevertheless, it creates a dangerous scope of abuses, since editors are more likely to have interests outside of academia. Suppose I am advising Microsoft in its antitrust litigation, how likely am I to publish a paper that shows that Microsoft abuses its dominant position in the operating system market? One could argue that a smart researcher will know of this potential bias and submit the paper to another journal. Yet, this information is not publicly disclosed and only people “in the know” might find out.

Even if the editor is a very honest person and will give the paper a fair chance, s/he is likely to shape it in a way that downplays disturbing results. Editors’ advices at the last round are rarely ignored by authors, especially young untenured ones. For most it is just too costly and risky starting from scratch.

To eliminate this potential distorting power I suggest a few reforms in the governance of the publication process. First, economic journals should open up to competition, as law journals do. It is ironic that a profession that touts the benefits of competition like economists, it limits it when it comes to the submission process. Contemporaneous submissions will reduce the power

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<sup>5</sup> As my initial footnote reveals, CRSP funds my research, so I may be accused of a conflict of interest here.

of the editors, to the advantage of the authors. This is the reason why it is unlikely that this reform will start from the journals themselves.

The second element of the reform consists in allowing the authors to post the signed rejection letters. Journals insist that rejection letters are their sole property and they are sent to authors for their eyes only. Authors, thus, do not own the copyright. If rejection letters are kept confidential, editors' reputation is unaffected, even when they make egregious rejection mistakes. If authors can post rejection letters, they can embarrass the editors when they make mistakes, especially when these mistakes seem to be driven by outside interests.

The last element of my reform will impose more rigid restrictions for editors. They should receive higher compensation from the journal, but commit not to do any other job outside of teaching. This restriction should hold not just for the period of their editorship, but also for two years after. While imperfect, this revolving door policy can limit the most egregious cases of conflict of interest.

### *3.2.5 The Importance of Being Nerds*

In the 1950s and 1960s Harvard Business School was recruiting his faculty among the most talented, more analytical MBA students. Starting in the 1970s the rise of big consulting companies and their competition for talents started to deprive HBS from its natural pool: analytical MBAs with high social skills. As a result, they started to recruit among PhDs from other institutions. There are generally two characteristics of PhDs, they are smart and they tend to have some social issues. They are smart, because otherwise they will never be let enter a PhD program. They have social issues, because otherwise they will never *choose* to enter a PhD program: smart and socially skillful people make much more money in the industry. When they ran out of talented American PhDs (because many moved to the industry) HBS and many other schools started recruiting foreigners.

There are several ways in which diversity in backgrounds and the presence of faculty with social handicaps help reduce the degree of capture. Social handicaps make a person less suitable to an industry job, reducing the value of what business has to offer down the line and thus reducing a possible channel of capture.

Similarly, diversity of backgrounds can be beneficial in several ways. First, diversity forces people to challenge the conventional wisdom and gives them a border perspective, making social pressure and environmental capture less likely. Second, diversity implies that at least some faculty are not easily employable, reducing this channel of capture. Third, people with double nationality and backgrounds have two communities in which they can be captured. If the interests of these two communities are not perfectly aligned, this multiple potential capture can generate competition, reducing the power of each individual captor.

In this respect, the internationalization of the academic market is very positive because it facilitates the debate among academic groups influenced by different interests. Once again competition among these different groups leads to a more efficient outcome, in the spirit of Becker (1983).

### *3.2.6 Awareness*

Shortly after the Greek debt crisis in May 2010, I spoke with a high level official of the European Central Bank who was in charge of monitoring the market. We discussed the potential cost of letting Greece fail. The crucial question was how the debt holders of other sovereign debt would have reacted to a default of Greece. I agreed that that was the crucial question, but I raised the doubt that some market makers had a vested interest in spreading the perception that the consequences would be disastrous, so that the ECB would intervene, reducing their losses. “I am aware of this bias –said the ECB officials – and every day when I talk to market participants I try to undo it. Whether I am successful in fully undoing this bias, it remains an open question.”



Awareness of the risk of capture is the first line of defense. It might not be sufficient protection, but it is certainly a necessary one. Without this awareness any other initiative is hopeless. Unfortunately, my experience talking with colleagues is that this sense of awareness is missing. There is a diffuse perception that we are different. While a simple application of economic principles, like I have done in this article, shows that we should be no different than regulators, we are unwilling to admit it. Until we are ready to do so, any other mechanism to prevent capture will be useless.

## 4. Conclusions

Most academic economists are very honest people, who chose their career because they were motivated by noble goals, like the quest for the truth and “making the world a better place”. Yet, the same can be said for the regulators. So why academic economists think that the regulators are generally captured, while they cannot stand even the thought that this might happen to one of them? This time *we are different?*

The purpose of this article is to highlight the parallelism between the forces that we use to explain regulatory capture and the ones that can capture economists. Unless we economists are made of a different fabric of the regulators, I do not see why we should not be subjected to the same kind of pressures.

Based on the analysis of these forces, I discuss several mechanisms to can help prevent (or reduce the effects of) capture: from a reform of the publication process, to an enhanced data disclosure, from a stronger theoretical foundation to a mechanism of peer pressure. Ultimately, the most important remedy, however, is awareness of the problem, an awareness most economists still do not have.

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**Table 1: Variables' Description**

|                                    |   |
|------------------------------------|---|
| <b>Positive on level</b>           | dummy equal to 1 if the paper supports current levels of compensation or it suggests to increase them, buying the optimal-contracting argument over the rent-seeking argument |
| <b>Negative on level</b>           | dummy equal to 1 if the paper think that the current levels of compensation are excessive and/or support the rent-seeking argument  |
| <b>Greater slope</b>               | dummy equal to 1 if the paper supports a higher weight given to the performance-based compensation  |
| <b>Smaller slope</b>               | dummy equal to 1 if the paper supports a higher weight given to the performance-based compensation  |
| <b>Economic journal</b>            | dummy equal to 1 if the paper is published on JPE, QJE or AER   |
| <b>Financial journal</b>           | dummy equal to 1 if the paper is published in the JF, JFE, or RFS   |
| <b>Managerial review</b>           | dummy equal to 1 if the paper is published in a managerial review   |
| <b>Law review</b>                  | dummy equal to 1 if the paper is published in a law review  |
| <b>No business school</b>          | dummy equal to 1 if no author is affiliated to a business school  |
| <b>Bebchuk dummy</b>               | dummy equal to 1 if the author is bebhuk  |
| <b>Citations in Google Scholar</b> | number of citations in google scholar as of 5/2/2011 - 5/5/2011   |
| <b>Downloads from SSRN</b>         | number of downloads in SSRN as of 5/2/2011 - 5/5/2011   |

**Table 2: Summary Statistics**

The sample is composed by the 150 most downloaded papers posted on SSRN as of 5/2/2011 - 5/5/2011 obtained using "executive compensation" as keywords. Variable definition is reported in Table 1.

| Variable                    | Obs | Mean     | Std. Dev. | Min | Max  |
|-----------------------------|-----|----------|-----------|-----|------|
| Positive on level           | 144 | 0.146    | 0.354     | 0   | 1    |
| Negative on level           | 144 | 0.208    | 0.408     | 0   | 1    |
| Greater slope               | 144 | 0.125    | 0.332     | 0   | 1    |
| Smaller slope               | 144 | 0.104    | 0.307     | 0   | 1    |
| Economic journal            | 144 | 0.021    | 0.143     | 0   | 1    |
| Financial journal           | 144 | 0.111    | 0.315     | 0   | 1    |
| Managerial review           | 144 | 0.028    | 0.165     | 0   | 1    |
| Law review                  | 144 | 0.118    | 0.324     | 0   | 1    |
| No business school          | 144 | 0.424    | 0.496     | 0   | 1    |
| Bebchuk dummy               | 144 | 0.069    | 0.255     | 0   | 1    |
| Citations in Google Scholar | 141 | 83.021   | 144.535   | 0   | 793  |
| Downloads from SSRN         | 144 | 1374.986 | 1061.984  | 580 | 7594 |

**Table 3: Pro business and not pro business content in different journals**

The sample is composed by the 150 most downloaded papers posted on SSRN as of 5/2/2011 - 5/5/2011 obtained using "executive compensation" as keywords. Variable definition is reported in Table 1. OLS coefficients reported. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

| VARIABLES          | (1)<br>positive on<br>level | (2)<br>negative on level | (3)<br>greater slope  | (4)<br>smaller slope  |
|--------------------|-----------------------------|--------------------------|-----------------------|-----------------------|
| Economic journals  | 0.551*<br>(0.279)           | -0.183***<br>(0.0386)    | 0.218<br>(0.279)      | -0.106***<br>(0.0307) |
| Finance journals   | 0.0721<br>(0.104)           | 0.130<br>(0.124)         | 0.00962<br>(0.0900)   | -0.0433<br>(0.0688)   |
| Managerial reviews | 0.135<br>(0.223)            | -0.183***<br>(0.0386)    | -0.115***<br>(0.0319) | -0.106***<br>(0.0307) |
| Law reviews        | 0.0611<br>(0.0994)          | 0.170<br>(0.124)         | 0.0611<br>(0.0994)    | 0.0707<br>(0.0990)    |
| Constant           | 0.115***<br>(0.0319)        | 0.183***<br>(0.0386)     | 0.115***<br>(0.0319)  | 0.106***<br>(0.0307)  |
| Observations       | 144                         | 144                      | 144                   | 144                   |
| R-squared          | 0.056                       | 0.038                    | 0.016                 | 0.014                 |

**Table 4: Citations as a Function of Content**

The sample is composed by the 150 most downloaded papers posted on SSRN as of 5/2/2011 - 5/5/2011 obtained using "executive compensation" as keywords. Time period: 1990 – 2007. The variable definition is reported in Table 1. OLS coefficients reported. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

| VARIABLES           | (1)<br>Citations Google Scholar | (2)<br>Citations Google Scholar | (3)<br>Citations Google Scholar | (4)<br>Citations Google Scholar |
|---------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Downloads from SSRN | 0.0759***<br>(0.0173)           | 0.0783***<br>(0.0173)           | 0.0743***<br>(0.0178)           | 0.0786***<br>(0.0178)           |
| Positive on level   | 78.07**<br>(35.82)              |                                 |                                 |                                 |
| Negative on level   |                                 | 13.97<br>(30.93)                |                                 |                                 |
| Greater slope       |                                 |                                 | 59.95<br>(45.73)                |                                 |
| Smaller slope       |                                 |                                 |                                 | -41.24**<br>(17.46)             |
| Constant            | -33.86*<br>(17.24)              | -28.61<br>(20.61)               | -27.69<br>(18.23)               | -21.89<br>(18.88)               |
| Observations        | 141                             | 141                             | 141                             | 141                             |
| R-squared           | 0.378                           | 0.343                           | 0.360                           | 0.349                           |

**Table 5: Content as a Function of Type of Job of the Authors**

The sample is composed by the 150 most downloaded papers posted on SSRN as of 5/2/2011 - 5/5/2011 obtained using "executive compensation" as keywords. Variable definition is reported in Table 1. OLS coefficients reported. Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

| VARIABLES                 | (1)<br>positive<br>on level | (2)<br>negative<br>on level | (3)<br>greater<br>slope | (4)<br>smaller<br>slope | (5)<br>positive<br>on level | (6)<br>negative<br>on level | (7)<br>greater<br>slope | (8)<br>smaller<br>slope |
|---------------------------|-----------------------------|-----------------------------|-------------------------|-------------------------|-----------------------------|-----------------------------|-------------------------|-------------------------|
| No business school author | -0.111*<br>(0.0561)         | 0.122*<br>(0.0704)          | 0.0107<br>(0.0565)      | 0.0468<br>(0.0533)      | -0.101*<br>(0.0566)         | 0.0738<br>(0.0669)          | 0.00443<br>(0.0552)     | 0.0483<br>(0.0534)      |
| Bebchuk dummy             |                             |                             |                         |                         | -0.127***<br>(0.0343)       | 0.614***<br>(0.131)         | 0.0793<br>(0.129)       | -0.0188<br>(0.0980)     |
| Constant                  | 0.193***<br>(0.0436)        | 0.157***<br>(0.0402)        | 0.120***<br>(0.0360)    | 0.0843***<br>(0.0307)   | 0.197***<br>(0.0441)        | 0.134***<br>(0.0405)        | 0.118***<br>(0.0368)    | 0.0850***<br>(0.0314)   |
| Observations              | 144                         | 144                         | 144                     | 144                     | 144                         | 144                         | 144                     | 144                     |
| R-squared                 | 0.024                       | 0.022                       | 0.000                   | 0.006                   | 0.032                       | 0.166                       | 0.004                   | 0.006                   |