Journal of Institutional Economics (2010), 6: 1, 47–53
© *The JOIE Foundation 2010* doi:10.1017/S1744137409990130

What do corporate directors maximize? (Not quite what everybody thinks)

AMITAI AVIRAM*
University of Illinois College of Law, Champaign, Illinois, United States

Abstract: The agency problem at the core of corporate law stems from a chronic potential conflict of interest between directors' self-interest and that of shareholders. Corporate law views directors' self-interest in terms of diverting welfare to directors at the expense of shareholders. Another component of directors' self-interest – being perceived as maximizing shareholders' welfare – is seen not as part of the agency problem, but as part of the solution (aligning directors' incentives with shareholders').

This is true only if taking actions that maximize shareholders' welfare is also the optimal manner for a director to be perceived as maximizing welfare. However, directors have more appealing ways to be positively perceived. In conducting bias arbitrage, directors identify risks that shareholders over-estimate, take action to address the risk, and then take credit for the 'lowered' risk (i.e., shareholders' corrected assessment of the risk).

Bias arbitrage is more attractive as shareholders' misperception of a risk increases. The opportunity to bias arbitrage thus leads directors to address highly misperceived risks instead of highly remediable risks.

Judge Richard Posner's (2010) article, *From the New Institutional Economics to Organization Economics*, offers an excellent application of principles of organization economics to a broad range of legal issues that are impacted by the structure of institutions – the corporation, the government intelligence agency, and the judiciary. In this brief comment, I add an additional angle to Posner's analysis of corporate executive incentives by demonstrating that when a corporate director (the 'agent') has discretion as to how to allocate her efforts between alternative tasks, her incentives to allocate efforts face a three-way conflict, rather than the commonly portrayed two-way conflict between the interest of the shareholders (the 'principal') and the interest of the agent.

The first incentive is to maximize the principal's direct welfare[1] in order to comply with the agent's legal or moral obligations or to avoid detection and

*Email: aviram@law.illinois.edu.
This article's title is a play on the title of Posner (1993), 'What do judges and justices maximize? (The same thing everybody else does).

1 By 'direct welfare' I mean the impact on the principal's welfare resulting from changes in the objective risks facing the principal. This is contrasted with 'indirect welfare' – the impact on the principal's welfare

punishment by the principal. The second incentive is to divert welfare to the agent at the expense of the principal. The third incentive is to sustainably maximize the principal's indirect welfare as perceived by the principal.

Most scholarship on agency problems considers only the first two incentives, or clusters the third incentive with either of the other two. Below I will first explain how the principal can, in a process I call 'bias arbitrage', sustainably maximize the principal's perceived welfare without maximizing the principal's direct welfare. I then explain how the third incentive differs from the other two, and conclude with some implications of this analysis to the corporate law governing executive compensation.

This three-way conflict of interest does not govern all externality situations, since bias arbitrage is not a viable strategy in every relationship. However, it does govern the agency relationship of many actors, including the institutions that Posner considers – corporations, intelligence agencies, and the judiciary. Elsewhere I applied bias arbitrage analysis to the behavior of public actors.[2] The focus of my analysis here is on the private actors that Posner examines – corporate directors.

1. Bias arbitrage in the corporation

Individuals widely misperceive risks,[3] both as a result of information asymmetry and of irrational processing of available information. For the purpose of bias arbitrage, such misperceptions need not be predictable *ex ante* or even accurately measurable *ex post*. Bias Arbitrage merely requires that another individual identify the existence of a misperception and its direction (over- or under-estimation). However, like other forms of arbitrage, bias arbitrage becomes more efficient as the arbitrageur is better able to assess the magnitude of the discrepancy.

Bias arbitrage is a strategy in which A identifies that B over-estimates a risk, and then purports to take actions to mitigate that risk. As B observes, over time, that the risk is lower than she earlier believed it to be, she credits A with mitigating the risk (rather than realizing her earlier misperception). For example, suppose that the probability that Acme Corporation's employees will commit fraud is 1 in 10,000 but, following a series of highly publicized corporate scandals, Acme's shareholders believe the probability is 1 in 100. Acme's board responds by implementing a highly publicized compliance program. Shareholders may be skeptical about the program's effectiveness, but, over time, they observe that the

caused by changes in the principal's behavior that result from a change in the risk as perceived by the principal. Together, direct and indirect welfare amount to the principal's total welfare.

2 Aviram (2007) (bias arbitrage by legislators); Aviram (2008) (bias arbitrage by the SEC).

3 I use the term 'risk' in its psychological meaning – the probability and magnitude of a negative event – rather than in its financial meaning, which considers the variance of outcomes of an event that can be positive or negative.

incidence of fraud is 1 in 10,000, and they credit the compliance program for a 99% reduction in fraud.

Bias arbitrage can succeed as long as shareholders' assessment of the probability of fraud increases in accuracy over time, even if the estimate is not very accurate. The greater the over-estimation of the risk, the greater the potential benefit to the agent from undertaking bias arbitrage (since the impact of the risk-mitigating actions will appear greater).

I defined bias arbitrage as *sustainable* maximizing of indirect welfare to distinguish this behavior from one in which the agent temporarily increases the principal's misperception of the risk, such as through fraud. Bias arbitrage deludes the principal as to the reason for the reduction in the principal's perceived risk (i.e., agent's actions rather than principal's earlier misperception is seen as the cause), but its net effect is to increase the accuracy of the principal's perception of the risk. Thus, future events (assuming they conform to their objective probabilities) corroborate the reduced risk alleged by the agent. Conversely, in the case of fraud the agent reduces the accuracy of the principal's perception of the risk, and thus as events unfold they contradict the level of risk alleged by the agent.

2. A three-way conflict of interest

An agent faces three incentives that are likely to conflict. First, maximizing the principal's direct welfare (the purpose for which the agent was retained). Second, diverting welfare to the agent at the expense of the principal (I call this 'narrow self-interest' to distinguish it from bias arbitrage, which may also serve the interest of the agent). Third, bias arbitrage – the maximizing of the principal's indirect welfare. The extant literature and case law discuss in great detail the conflict between narrow self-interest and the principal's direct welfare; indeed, it treats this conflict as *the* conflict of interest an agent faces. This analysis neglects the agent's separate incentive to bias arbitrage. I will discuss below the conflict between each of these and the incentive to maximize the principal's indirect welfare (bias arbitrage) to illustrate why bias arbitrage does not fit into either of the other two incentives.

Principal's direct welfare v. bias arbitrage

Bias arbitrage does not preclude an agent from taking actions that reduce the objective risk, so the agent may both attempt to objectively reduce a risk and to subjectively appear to reduce the risk. But the potential for bias arbitrage may affect an agent's choice of which risks to address when not all can be dealt with. To minimize objective risk, the agent should address the risk that is most-remediable (i.e., highest return per cost of addressing the risk). To minimize perceived risk, the agent should address the risk that is most over-estimated by the principals.

There is typically greater uncertainty as to the impact an action will have on an objective risk (i.e., uncertainty as to the success of an effort to reduce an objective risk) than as to whether a risk is over-estimated by the principal (i.e., uncertainty as to the success of an effort to reduce perceived risk).[4] Thus, when confronted with a choice between the most-remediable risk and the most over-estimated risk, agents are likely to address the latter.

Because the bias arbitrage incentive may direct the agent to act differently (i.e., address different risks) than the incentive to maximize the principal's direct welfare, the two incentives are separate and potentially conflicting.

Narrow self-interest v. bias arbitrage

An agent has an incentive to conduct bias arbitrage in order to receive credit for reducing the (over-estimated) risk. Why not, then, consider bias arbitrage as a subset of the agent's self-interested incentives?

The reason for distinguishing bias arbitrage from other self-interested incentives the agent faces (shirking, stealing, seizing an opportunity belonging to the principal, etc.) is that the latter reduce the principal's welfare, while the former typically increases it.

Individuals who over-estimate a risk are likely to act in suboptimal ways, such as:

(i) excessive avoidance of activities that expose them to the risk (e.g., excessive avoidance of corporate investments as a result of over-estimating the risk of corporate fraud);
(ii) excessive self-help (e.g., over-monitoring of the corporate executives by the shareholders); or
(iii) excessive pressure for institutional intervention (e.g., shareholders pressing government for unnecessary government regulation or pressing directors for cost-ineffective internal compliance programs).

Thus, mitigating the principal's misperception of a risk should increase social welfare.

Principals self-correct their misperceptions of risk over time (indeed, if they did not, agents would have no incentive to bias arbitrage). However, bias arbitrage speeds up the pace of this correction by giving principals a plausible reason to self-correct their perceptions and by focusing their attention on the misperceived risk.

Not every risk perception manipulation increases the subject's welfare. For example, if shareholders under-estimate the probability of fraud in the corporation (or the adequacy of controls on executive compensation), and the directors' actions further increase their complacency, shareholders welfare

4 Bias arbitrage requires that the agent be sufficiently unbiased to identify that the principal misperceives a risk. For a discussion on why this is likely, see Aviram (2007: 802–803).

will be harmed.[5] Such actions, however, are not bias arbitrage because they are not sustainable: under our assumption that individuals self-correct risk misperceptions over time, principals will gradually observe that their optimism was unfounded. Indeed, the more over-optimistic the principals are, the faster they would realize that their perception is wrong (since it would take fewer observations of negative events to cause them to question their current perception). Such realization would discredit the agent, and thus is not a sustainable risk manipulation strategy.

Conversely, bias arbitrage is sustainable when it attempts to reduce a perceived risk that is currently over-estimated, because the principal's self-correction (observing that the risk is lower) corroborates the agent's claims that the risk is lower, lending credibility to the agent (and to the agent's claim that it is her actions that resulted in the lower observed risk).

Thus, the agent's incentive to bias arbitrage differs from narrow self-interest in that it increases rather than decreases the principal's total welfare, and it is different from the agent's incentive to maximize the principal's direct welfare in that it leads the agent to address the risk most over-estimated by the principal rather than the risk most remediable by the agent.

3. Implications for legal analysis of executive compensation decisions

Legal analysis of directors' decisions under state corporate law

Below is an abstracted sketch of the manner in which Delaware corporate law (which is the most influential jurisdiction for American public companies) evaluates corporate directors' decisions, such as their decision to approve executive compensation.

The analysis has three stages. First, the directors must have *authority* to make the decision – that is, the decision must comply with whatever explicit requirements the corporate statute demands.

This stage tends to present a low hurdle: directors are authorized to make nearly all corporate decisions (in most cases, regardless of shareholders' wishes), and this authority is qualified in relatively few ways, procedural (e.g., rule requiring a quorum of directors for the meeting to be considered valid) or substantive (e.g., rule limiting when dividends may be distributed). Currently, directors face few constraints in approving executive compensation; indeed, they are even specifically authorized to determine their own salaries.

Second, even authorized actions must not breach directors' *fiduciary duties*. Fiduciary duties represent the duty to use corporate powers only for a proper purpose, which under most American jurisdictions means the maximization of shareholders' welfare. Whereas authority is an *ex ante*, legislation-determined,

5 For a detailed analysis of the effect of risk perception manipulation on the subject's social welfare, see Aviram (2007: 803–809).

general constraint on directors' discretion, fiduciary duties are ex-post, judge-determined and case specific constraints. The fiduciary duty analysis is itself split into two parts:

(i) Under a legal principle known as the Business Judgment Rule ('BJR'), the court defers to the directors (i.e., presumes fiduciary duties were not breached) unless the board acted in bad faith[6] or directors did not sufficiently investigate and deliberate prior to reaching their decision.
(ii) If one of the exceptions to the BJR applies, suggesting an acute agency problem, the court may find that the decision breached fiduciary duties if directors were grossly negligent or if the decision is deemed unfair to the shareholders.

The third and final stage of analysis is *ratification*: fully informed shareholders may ratify (i.e., approve) directors' decisions, validating them even though they failed one of the two stages above.

While Delaware courts condemn decisions to award executive compensation where directors have a conflict of interest or have merely 'rubber stamped' a compensation package determined by others, so far they have tolerated even seemingly over-generous executive compensation awards, if the directors awarding it thoroughly considered the compensation package, relied on appropriate expert advice, and did not appear to have a conflict of interest with the shareholders.

How will corporate law treat directors' bias arbitrage?

Because corporate law currently portrays directors' conflict of interest as having only two conflicting incentives, it has not afforded separate consideration for directors' actions that amount to bias arbitrage (i.e., maximizing shareholders' indirect welfare). I conclude this comment, therefore, with preliminary thoughts as to how corporate law would likely address bias arbitrage. Bias arbitrage raises the following doctrinal questions regarding the legal analysis of directors' decisions:

(i) Does a director's incentive to bias arbitrage amount to a conflict of interest?
(ii) Is an action that maximizes shareholders' indirect welfare at the expense of shareholder's direct welfare inherently unfair to shareholders?
(iii) Bias arbitrage deludes the principal as to the reason for the reduction in the principal's perceived risk. Does this amount to fraud (and thus illegality)?

An evaluation of the permissibility of bias arbitrage by directors presents a tension between two conflicting themes of corporate law. The first theme, which underlies the BJR, is the deference afforded to informed decisions by directors who are not self-interested (in the narrow sense). Following this theme, if directors favor action A over action B and both actions are reasonably in

6 Examples of bad faith include: having a conflict of interest with the shareholders regarding the decision, acting illegally, utterly abdicating the duties to the corporation, or wasting the corporation's resources irrationally. The latter two situations are applied very narrowly.

shareholders' interest, courts are highly unlikely to question the decision even if evidence suggests that action B is more favorable to shareholders. Bias arbitrage is almost always likely to increase shareholders' indirect welfare (since, as discussed above, harmful bias arbitrage that addresses risks shareholders already underestimate is unsustainable and thus unbeneficial to the director). Thus, a decision to bias arbitrage will increase shareholders' welfare. At worst, it would not maximize shareholder welfare, if it precludes actions that increase shareholder welfare even more (such as actually mitigating the risk).[7]

The second theme – at odds with bias arbitrage – is the importance of truthful disclosure of information to shareholders. Judicial intervention is seen as a last resort to curtail the agency problem in the corporation. Corporate law relies on structural mechanisms (e.g., shareholder voting for directors, performance-based compensation structures) and market mechanisms (e.g., the market for corporate control, directors' need to raise additional capital in the future) as first lines of defense and deterrence against agent malfeasance. Such mechanisms can be undermined by directors' manipulative disclosure.

Yet bias arbitrage, like medical placebos, requires the manipulation of the subject's perception to succeed. Shareholders are unlikely to correct their misperception if directors simply told them the risk was misperceived, rather than offering shareholders a reason for the mitigation of the risk. And directors are less likely to attempt to correct shareholders' misperception if they gain nothing from it.

Thus, while bias arbitrage is welfare-enhancing and self-enforcing, corporate law's acceptance of it is uncertain.

References

Aviram, Amitai (2007), 'Bias arbitrage', *Washington and Lee Law Review*, **64**.

Aviram, Amitai (2008), 'Counter-cyclical enforcement of corporate law', *Yale Journal on Regulation*, **25**.

Posner, Richard A. (1993), 'What do judges and justices maximize? (The same thing everybody else does)', *Supreme Court Economic Review*, **3**(1).

Posner, Richard A. (2010), 'From the new institutional economics to organization economics: with applications to corporate governance, government agencies, and legal institutions', *Journal of Institutional Economics*, **6**(1): 1–37.

7 There is a complication in applying the BJR to bias arbitrage: courts will second-guess directors' decisions when directors are self-interested (i.e., derive an interest from the decision that is different from the interest of their shareholders). The goal of this exception is to protect shareholders from directors' narrow self-interest (diverting welfare to the agent at the expense of the principal). In the case of bias arbitrage, directors do have an incentive for bias arbitrage that is different from that of shareholders – the interest in being perceived to have addressed an over-estimated risk. Thus, directors may be said to be self-interested. However, this incentive prompts directors to take actions that enhance, not reduce, shareholders' welfare, and thus may be distinguishable from narrow self-interest that justifies judicial intervention.