Introduction

The Global Financial Crisis (GFC) of 2008 rekindled interest in financial market regulation. While the attention calls for debate on more government regulation and less self-regulation, one key point at issue in this debate is the ability of regulators to hold market participants accountable to law and ethical standards. The central concern is whether regulation (either government or self-regulation) effectively “serves the public interest, or in fact, injuries it by distorting the market, undermining efficiency and reducing production” (Etzioni, 2009, p. 319). Several observers even went further, blaming regulators, or, as they referred to them, the “Guardians of Finance”, for not regulating in the public interest (Barth, Caprio, & Levine, 2012, p. 5). The argument put forth is that regulators adopted policies that allowed market participants to take excessive risk to meet their performance targets (Lokanan, 2014a). Regulators often chose not to address these issues even though they are within their regulatory mandates. One of the reasons put forth for this outcome is regulatory capture (Croley, 2008; Etzioni, 2009; Baker, 2010; Barth et al., 2012; Leight, 2010).

Regulatory capture, as developed by Stigler (1971), posits that regulatory agencies tend to respond to the wishes of the more powerful and organised special interests groups in the industry that they regulate and supervise (Carpenter, 2014; Leight, 2010; Novak, 2014; Veltrop & de Haan, 2014). Agencies that suffer from regulatory capture come to identify with industry interests or the interests of the bigger players in the industry over the wider public good (p.2). There are many forms in which regulation can be captured. While not an exhaustive list, capture theorists from both the centre right (Stigler, 1971; Posner, 1974) and the liberal left (Kolko, 1963; Lowi, 1969; Merrill, 1997; Dal Bó, 2006; Etzioni, 2009) have outlined various ways in which regulatory capture occurs. Some of the more common ways of regulatory capture, as
highlighted, in the literature are as follows: special interest groups using their influence to shape regulation (Novak, 2014; Leight, 2010; Schwarcz; 2013; Potter, Olejarski, & Pfister, 2014); diluting of regulation through amendments (Croley, 2008; Veksler, 2015); repeal of existing regulation to suit special interest groups (Benmelech & Moskowitz, 2009); manipulation of regulators (Lokanan, 2014b; Wu, Johan, Rui, 2014); and, weakened enforcement of existing regulatory standards (Carpenter, 2014; Coates, 2007; Etzioni, 2012; Braithwaite, 2013).

Critics have argued that self-regulatory regimes are routinely and predictably captured, either by those that the regulator is supposed to regulate – industries, professions and businesses (hereinafter, special interest groups) – or by the bureaucrats and legislators who write and implement these rules (Etzioni, 2009, p. 319). Regulation thus captured is said to serve the special interests of these groups rather than the public interest (Carpenter, 2014; Potter et al., 2014). With the benefit of over twenty-four years of enforcement data from the Investment Dealers Association (IDA) of Canada, now the Investment Industry Regulatory Organization of Canada (IIROC), the present paper explores one aspect of regulatory capture – weak enforcement of existing standards. Research conducted by investors’ protection groups found that financial fraud and other financial market misconduct are rampant in Canada (FAIR Canada, 2011b). The enforcement of these frauds have been characterized as “lax” and “inadequate” and have led market commentators to accuse the IDA of being held captive by industry professionals and large Member firms to protect them from harsh sanctions (Rosen & Rosen, 2010; FAIR Canada, 2011b; Lokanan, 2014b). This paper seeks to expand on Stigler’s work and examine the theory of regulatory capture as it applies to favourable enforcement by the IDA to its members. More specifically, the paper examines the enforcement practices of the IDA in disciplining its members and holding them accountable to high ethical standards. To this end, the specific
research question is as follows: Is the IDA captured by the very industry it regulates? The paper tests the hypothesis that proportionately, smaller fines are imposed for more serious offences, ceteris paribus. This claim is tested using an original dataset of 552 IDA enforcement cases.

**Significance of the Study to Theory and Practice**

Self-regulation works best within a certain regulatory framework and is more useful when the concept is formally recognized within that framework (Braithwaite, 2013; Lokanan, 2017). Self-regulation in particular, has been accused of serving the interests of industry above those of the public, for example, circumventing rules regulating financial markets, inconsistencies in sanctions and lacking accountability as in government regulation (Lokanan, 2015; Raine & Dunstan, 2011; Potter et al., 2014). In this regard, an examination of the IDA’s enforcement record provides ideal fodder for a more thorough probe of a self-regulatory framework and would be another entry into the ever-expanding catalogue on the use of self-regulation in Finance.

There have been fluctuations in Canadian capital markets and elsewhere. An interesting feature of the Canadian system is the stabilising role of the big deposit-taking banks, which manage a lot of the securities transactions that, in the US, would be handled by investment banks or the shadow banking system. This was likely a factor in Canada’s exceptionally successful weathering of the financial crisis that began in 2007. The IDA is a key part of the Canadian regulatory system and its linkages to other aspects of the Canadian system are important in analyzing its performance. Fully addressing these linkages would not be possible in the present paper, but an examination of its enforcement of capital market misconduct could be useful. Informed readers from other countries know that Canada did well during the crisis and will be curious as to how the IDA was holding its members accountable to law and ethical standards.
governing financial market regulation. Given the controversies about self-regulation that have accompanied the financial crisis, exploring the performance of an organisation like the IDA is valuable in this regard.

The remainder of this paper is organized as follows. The paper first provides a rationale as to why it is important to study the enforcement performance of the IDA within the wider context of securities regulation in Canada. This is followed by a brief outline of the theoretical framework of self-regulation and the structural problems associated with its use in finance. Next, the paper then proceeds to discuss the methodology used to collect the data and follow this up with a detailed analysis of the findings. A multiple regression technique is used to analyze the relationship between offences and fines imposed on offenders. Finally, a critical discussion on the theoretically-founded dimensions surrounding the effectiveness of self-regulation in Canada’s securities industry is discussed.

**The legal and wider contexts of Securities Regulation in which the IDA operated**

The IDA was an unincorporated voluntary Association of Canada’s securities dealers that was governed by a constitution and which dealt with the conduct, management and control of the Association's affairs\(^1\). Article 2(b) of the IDA’s constitution stated that the objective of the Association was:

> to encourage through self-discipline and self-regulation of a high standard of business conduct among Members and their partners, directors, officers and employees and to adopt, and enforce compliance with, such practices and requirements as may be necessary and desirable to guard against conduct contrary to the interests of Members, their clients or the public.\(^2\)

Likewise, the Recognition Order under the *Commodity Futures Act* stated:

> The IDA represents its members and is organized for the purpose of regulating the operations and the standards of practice and business conduct of its members and their

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representatives with a view to promoting the protection of investors and the public interest.\textsuperscript{3}

The IDA’s constitution and the \textit{Commodity Futures Act} expressly provided that the IDA’s public interest mandate was to promote high standards of market conduct of its members and to enforce compliance with those standards.

The IDA derived its authority and delegated responsibilities from the provincial securities commissions for securities regulation and investor protection. Note, this delegation arose from a contractual relationship with the securities commission and not from enacted statutes. The provincial governments, by virtue of their legislative authority, delegated power to the IDA to oversee the operations of its registered Member firms and their brokers. The provincial governments did not delegate industry compliance and enforcement duties to the IDA. Rather, the IDA had the authority and the jurisdiction over its registered members to oversee provincial securities laws as well as IDA rules, regulations and by-laws.

The IDA was recognized as an SRO by all of the provincial securities commissions\textsuperscript{4} and operated under Recognition Orders from the Canadian Securities Administrators (CSA). The recognition by the provincial securities commissions was an important one, as it set out clear standards which the IDA had to meet before it could exercise its delegated authority. The IDA’s by-law 20.30 stipulated that the Association may hold hearings, as set out by the by-law, in order to ensure compliance with enforcement of the Associations rules and regulations and federal or provincial statutes relating to trading or advising in respect of securities or commodities (Hockin Panel, 2009).

\textsuperscript{4} The legislation of the Yukon, the Northwest Territories and Nunavut does not provide for recognition of SROs.
Despite the power granted to the IDA from the CSA and provincial securities commissions, there were significant limits to the IDA’s enforcement jurisdiction (Cory & Pilkington, 2006, p. 242). First, the IDA had “no legislative authority, nor public accountability mechanisms, to ensure that wrongdoers [were] properly investigated and prosecuted” (Urquhart, 2008, p. 7). Second, the IDA did not have the legislative authority to file the decisions of their hearing panels as decisions of the courts for the purpose of enforcement (Cory & Pilkington, 2006, p. 242). Third, the IDA had no statutory authority “to lay criminal or quasi-criminal charges involving jail sentence penalties, either directly or by presenting such charges to a court” (Urquhart, 2008, p. 7). The IDA was, however, required to refer cases with evidence of criminal offences to the criminal justice system for further investigation. These limits to the IDA’s authority significantly reduced its ability to prosecute alleged infractions or enforce sanctions imposed by its hearing panels (Cory & Pilkington, 2006, p. 242).

Theory and Literature Review

The idea that powerful industry professionals and businesses will capture regulatory agencies to foster their own interests is certainly not a new phenomenon (Carpenter, 2014; Boehm, 2007; Novak, 2014). Similar ideas go back to the works of German philosophers Karl Marx (“Marx”) and Friedrich Engels (“Engels”) in the 19th Century who noted that there is a general tendency of government to support the private interest (i.e., the bourgeoisie) to capture the apparatus of the state and use that power to facilitate its own interests (Breton, 2007, p. 55). Marx and Engels view laws as being devised to maintain the privileged positions of the economic elite and perpetuate their own self-interests (Cain, 1974, p. 136). Based in large part on hegemonic discourse, Marx and Engels argued that laws are being distilled out of the economic order from which they arose, and are becoming institutionalized (by regulatory apparatus) to give
privileged treatment to special interest groups (Marx & Engels, 2002). In defining laws, and fundamentally acting out of their own self-interests, industry elites axiomatically construct regulatory regimes so that the existing hegemonic structure that gives power to their peers is perpetuated and maintained at the expense of the masses (Sutherland, 1940, p. 9). The resultant effect is that the powerful financial elite have greater influence in molding regulation and enforcement to suit their own interests rather than the interests of the public (Sutherland, 1940, p. 9).

Indeed, laws and regulation are seen as tools that are captured by financial elite to perpetuate their own economic interests. However, the concept of ‘regulatory capture’, as it is understood in the regulation literature, stems from Stigler’s (1971) seminal work, *The Theory of Economic Regulation*. In the very introduction of his article, Stigler (1971) asserts that “…as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefits: (Stigler, 1971, p. 3). The basic hypothesis of Stigler’s (1971) argument “is that an industry may use—or rather abuse—the coercive public power of the State to establish and enforce rules in order to obtain private benefits”(Boehm, 2007, p. 4). Stigler’s (1971) definition points to a phenomenon where regulation is being repeatedly directed away from the public interest towards the interest of the regulated industry by the intent of the industry professionals themselves (Carpenter & Moss, 2014, p. 13). The aim is to induce the regulator to identify with the industry by emphasising the role of interest groups in the formation and enforcement of regulation (Laffont & Tirole, 1991, p. 1089).

A significant body of the literature on self-policing and regulatory capture focuses on the utilities industry (Atkinson & Nowell, 1994; Berry, 1979). Alongside these is an emergent body of scholarship that looks at regulatory capture in the financial sector (Carpenter & Moss, 2014;
Central to the arguments presented is this stream of literature is that the very features of the financial sector may make it susceptible to capture (Hardy, 2006; Boyer & Ponce, 2012; Carpenter & Moss, 2014; Kwak, 2014). The decline of self-regulation in the financial sector is connected with these weaknesses, whereby regulatory agencies are often subjected to regulatory capture by financial elites not pursuing the public interest. As time goes on, regulators are commonly subjected to pressure from regulated firms and industry professionals to modify regulation and enforce it to suit their interests (Aikins, 2009, p. 27). This involves the financial service industry gaining control of SROs and using it for industry purposes (Singh, 2007, p. 12; Redhead, 2008, p. 148). These same agencies that are created to address market failures are themselves captured” by the very firms that they regulate (Etzioni, 2009; Baker, 2010; Novak, 2014; Kwak, 2014). Consequently, captured regulators tend to be more lenient towards the sector they are supposed to independently monitor (Carpenter & Moss, 2014; Dal Bó, 2006; Lokanan, 2014; Veltrop & de Haan, 2014).

**Self-regulatory Enforcement and Regulatory Capture**

While capture may occur in all regulated sectors, this phenomenon is expected to be particularly severe in the financial industry where there is a conflict-of-interest between financial firms trying to maximise profit and regulators who wants to regulate in the public interest (Brockman, 2004; Lokanan, 2014a; Novak, 2014; Veltrop & de Haan, 2014; Potter et al., 2014). The conflict that arises between regulatory functions and their business interests, determines their ability to effectively investigate and discipline their members (CFA, 2007: 22). The inherent conflict-of-interest is more pronounced among SROs. When the interests of the SROs (to regulate in the public interest) clashes with the interests of their members, the SROs
inevitably choose the interests of their members (see Brockman, 2004; CFA, 2007; Croley, 2008; Lokanan, 2015).

Along these lines, Brockman (2004) notes that by far the most common criticism of SROs is that they are “too lenient on their members, and rather than widening the net of social control as they claim, they are accused of ‘funnelling out’ so many complaints that they are ineffective in controlling” their members (Brockman, 2004, pp. 55-56). Brockman (2004) notes two aspects to this criticism. First, “professional SROs are not designed to, or do not, deal with the majority of clients’ complaints, which are about quality of professional services, not misconduct” (p. 56). Second, when “a complaint does make it through the SRO’s disciplinary system, the penalty is so light as to amount to nothing more than a ‘slap-on-the-wrist’” (p. 56). This last point was reinforced by a Toronto Star series on white-collar securities crime enforcement in Canada. The reporter noted that “cases not pursued by criminal authorities can easily slip through the cracks, though in some cases wrongdoers will get a regulatory wrist-slap for criminal offences more deserving of jail time” (Hamilton, 2007, para. 37). Perhaps a more serious criticism of SROs is that they “deflect criminal complaints away from the criminal justice system, protecting members from criminal prosecution” (Brockman, 2004, p. 57). That is, instead of sending complaints with evidence of criminality to the criminal justice system, SROs deals with them internally and impose lighter sanctions (Lokanan, 2014b). The inherent conflict-of-interest of having a regulatory body tasked with regulating its members who are its main source of funds to remain operational may contribute to this outcome.

Some evidence suggests that captures affects self-regulation in the financial industry (Kane, 1990; McCaffrey and Hart, 1998; DeMarzo, Fishman, & Hagerty, 2005). Perhaps one of the first studies to examine the enforcement of regulatory agencies for market misconduct was
Kane’s (1990) work on the Savings and Loan (S&L) scandals in the United States (U.S.). The federal government in the U.S. seems to have had very little interest in regulating the affairs of the Federal Savings and Loan Insurance Corporation (FSLIC) and preferred self-regulation through accreditation by industry association (Schichor, 2006). The constant pressure for higher market share and increased wealth (e.g., Charles Keating, the Head of Lincoln Savings) during the S&L invariably put pressures on regulators to regulate in their self-interest (Kane, 1990). When the scandal broke, Kane (1990) noted that many of the cases were handled through regulatory procedures of civil proceedings, thereby saving some of the offenders from jail time. In other cases, many of the S&L owners who stole millions received jail time, but their sentences were one-fifth of those of the average bank robber.

In another study, McCaffrey and Hart (1998) examined the regulatory activities of the National Association of Securities Dealers (NASD) and the New York Stock Exchange (NYSE) and identified three patterns of enforcement against individuals and firms. First, registered representatives from firms with larger retail operations were involved in a significant proportion of disciplinary proceedings, while firms that dealt mostly with institutional investors were involved in fewer disciplinary proceedings (McCaffrey & Hart, 1998, p. 17). One reason cited for this outcome is that institutional investors were powerful enough to deal with the firms informally when problems arose (p. 155). Firms dealing with institutional investors avoided major fines (with some exceptions). Second, firms whose employees were involved in a lot of proceedings did not necessarily have heavy sanctions imposed upon them (p. 17). Third, in terms of disciplinary actions taken against the firm itself, fines varied by the type of business the firms were involved in. The larger firms in retail operations were involved in fewer disciplinary proceedings than the smaller firms, a sign that the SROs were, perhaps, going after the smaller
firms to give the impression that they were doing enough to safeguard the public interest. The SROs’ enforcement generally favours the larger firms and enables them to get their way in the industry (Redhead, 2008; Kwak, 2014; Carpenter & Moss, 2014).

DeMarzo, Fishman and Hagerty (2005) analyzed the NYSE’s enforcement of anti-fraud rules to deter registered representative from swindling investors. More specifically, DeMarzo et al. “model contracting/enforcement as a two-tier problem” (p. 687). First, the authors note that “an SRO chooses its enforcement policy,” that is, “the likelihood of an investigation and a penalty schedule for fraud” (Pp. 687-688). The authors assumed that the SRO’s “objective is to maximize the welfare of its members, the agents,” rather than the investing public (p. 688). The findings revealed that the SRO is more likely to choose “a … lax enforcement policy,” meaning “less frequent investigations” … than what investors would otherwise see as proportionate to the offence (Pp. 687-688). Second, DeMarzo et al. “also consider government oversight, meaning that the government observes the SRO’s enforcement policy and can then choose to do its own enforcement” (p. 689). The authors assumed that “the government’s objective is to maximize customer expected utility” and found that “the threat of government enforcement leads to more aggressive enforcement by the SRO” (p. 689).

While these studies give some insight into the enforcement of securities crime by SROs in the United States, little, if anything, is known about the enforcement practices of Canadian SROs. This study will attempt to address this gap by looking at the enforcement of complaints by the SRO at the front-end of Canada’s three-tier regulatory system - the IDA. In doing so, the present study hopes to contribute to the literature on self-regulation in general and securities regulations in particular. This study hypothesized that proportionately, smaller fines are imposed for more serious offenders, ceteris paribus. In general, the data should reflect decreasing fines
for more serious offences.

**Research Method**

*Data Collection and Sample*

Data for the study came from all the tribunal cases published by the IDA from 1984 to June of 2008. The data were made available from Simon Fraser University in British Columbia and was retrieved from the *Quicklaw* database. To identify the cases, the search term “Investment Dealers Association” was entered into the Securities Regulation Tribunal Decisions database in *Quicklaw*. The search term “Investment Dealers Association” was sorted by relevance and from oldest to newest cases. In total, 1,934 cases were retrieved from the *Quicklaw* database.

Each case was carefully examined to identify the ones that were within the IDA’s jurisdiction. Of the 1,934 cases, 708 were within the IDA’s jurisdiction and were heard by an IDA hearing panel. Of the 708 cases, 39 were eliminated because they were atypical and not relevant to the study. The 39 cases that were eliminated dealt with jurisdictional and procedural issues, such as requests to open proceedings, requests for adjournments, adjourned motions and adjourned hearings. A further 117 cases that dealt with offences committed by Member firms were eliminated. The final dataset consists of 552 cases and represents the entire population of disciplinary proceedings against individual offenders that was heard by an IDA hearing panel from 1984 to June of 2008.

**Variables and Measurements**

*Independent Variables*

The main independent variable is the type of offences that the offenders committed. The types of offences ranked from the most severe to the least severe are as follows: quasi-criminal,
improper sales practice, conflict-of-interest, misrepresentation and failure to corporate, and internal control offences. To operationalize a measure of proportionality with fines imposed, a compound metric of severity for offences was established. As can be seen in Appendix 1, the offences were coded based on their level of severity with 5 being the most serious and 1 the least serious: quasi-criminal (5), improper sales practice (4), conflict-of-interest (3), misrepresentation and failure to corporate (2), and internal control offences (1).

**Control Variables**

Control variables that may have had an interactive effect on the dependent variable, fines were included in the study. The study controlled for alternative hypothesis by using the following control variables: type of hearing; gender; offenders’ experience in the industry; victims’ losses; cost of investigation; number of victims affected by the act; aggravating and mitigating factors considered in fine imposition; disciplinary history of the offender; offenders’ occupation; and multiple offences. The inclusion of control variables allows for an examination of spurious relationships in the model and measures the impact on any one of the variables above and beyond the effects of the independent variable (offence). The incorporation of the control variables in the model allowed for an analysis of the influence that offences have on fines imposed by adjusting for the impact that disciplinary history, offenders’ occupation, number of victims affected and aggravating and mitigating factors, etc., have on the model.

**Dependent Variables**

The dependent variable is the amount of fines in dollars imposed on the offender. The amount of fines imposed is a continuous variable with many possible values, ranging from $0 to $1,000,000 per offence. It is hoped that the regression model will tease out the proportionality of the fines imposed on the brokers for their wrongdoing.
Empirical Findings

Descriptive Statistics

There are 552 observations in the dataset with 14 variables. The characteristics and variable types are listed in Table 1. The case number is a unique identifier for each row in the dataset and is not used in the analysis. The average Fine imposed is $34,327. The number of Fines by Offences and percentage of all Fines is shown below:

Category 1 = Internal Control Offences = 20 (3.6% of Offences)
Category 2 = Misrepresentation and Failure to Cooperate = 84 (15% of Offences)
Category 3 = Conflict of Interest Offences = 42 (7.6% of Offences)
Category 4 = Improper Sales Practice = 284 (51% of Offences)
Category 5 = Quasi-Criminal Offences = 122 (22% of Offences)

Table 1 – Descriptive Statistics on Variables in the Dataset

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
<th>Model Use</th>
<th>Values</th>
<th>Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case number</td>
<td>Identifier</td>
<td>Discard</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Type of hearing</td>
<td>Nominal</td>
<td>Input</td>
<td>1,2 or 3</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Flag</td>
<td>Input</td>
<td>1 or 2</td>
<td></td>
</tr>
<tr>
<td>Offenders experience in the industry</td>
<td>Ordinal</td>
<td>Input</td>
<td>1 through 9</td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td>Nominal</td>
<td>Input</td>
<td>1,2 or 3</td>
<td></td>
</tr>
<tr>
<td>Offenders disciplinary history</td>
<td>Nominal</td>
<td>Input</td>
<td>0,1 or 2</td>
<td></td>
</tr>
<tr>
<td>Victim losses</td>
<td>Continuous</td>
<td>Input</td>
<td>0 – 8,466,834</td>
<td>Mean = 64898, Std Dev = 411930</td>
</tr>
<tr>
<td>Cost</td>
<td>Continuous</td>
<td>Input</td>
<td>0 – 125,000</td>
<td>Mean = 6595, Std Dev = 12273</td>
</tr>
<tr>
<td>Aggravating factors</td>
<td>Flag</td>
<td>Input</td>
<td>0 or 1</td>
<td></td>
</tr>
<tr>
<td>Mitigating factors</td>
<td>Nominal</td>
<td>Input</td>
<td>0,1 or 9</td>
<td></td>
</tr>
<tr>
<td>Number of victims</td>
<td>Continuous</td>
<td>Input</td>
<td>0 – 22</td>
<td>Mean = 1.9, Std Dev = 2.6</td>
</tr>
<tr>
<td>Offences</td>
<td>Ordinal</td>
<td>Input</td>
<td>1,2,3,4 or 5</td>
<td></td>
</tr>
<tr>
<td>Multiple offences</td>
<td>Continuous</td>
<td>Input</td>
<td>0 – 5</td>
<td>Mean = 1.2, Std Dev = .65</td>
</tr>
<tr>
<td>Fines</td>
<td>Continuous</td>
<td>Target</td>
<td>0 – 1,300,000</td>
<td>Mean = 34327, Std Dev = 87097</td>
</tr>
</tbody>
</table>

The level of severity of the Offence increases with the numeric category of Offence (1, 2, 3, 4, ...
5). The average Fine by Offence (Figure 1) shows the average decreasing with increasing levels of Offence, except for Quasi-Criminal Offences (category 5) where the average Fine is the highest of all categories.

Figure 2 plots the individual values of Fines in the appropriate Offence category. A closer look at Figure 2 shows that there is one large outlier in the Quasi-Criminal Offence category (category 5) with a value of $1,300,000. While the outlier does not change the results in this particular case, it could affect the regression assumption, and as such, will be removed from the analysis (see Kleinbaum, Kupper, Nizam, & Rosenber, 2014). In this study, there are over 500 observations, as such, it is theoretically right to omit the single outlier because it may exert too much influence and skewed the results (Draper & Smith, 1998).
The revised plot with the outlier removed is shown in Figure 3 below. With the outlier removed, Fines range from $0 to $600,000. When observing the plot, the higher Fine values in categories 4 and 5 do not appear to support the hypothesis. There may be a flat or downward trend across the first three categories, but when the last two categories are included, the trend appears to reverse upward. The total number of observations in the first three categories is much smaller than the number of observations in the last two categories. As such, the values in the first three categories will take on much less weight when a regression is performed (Kleinbaum et al., 2014).
**Linear Regression – Fines by Offences**

The next step is to run the regression model. A regression model fits an equation to the data using a methodology called least squares that results in the best fitting of an equation to the input data (Kleinbaum et al., 2014). A regression is performed fitting Fines by Offences. Summary output from the model is presented in Table 2 below. The $R^2$ value is a measure of how well the equation fits the data and the low $R^2$ value (and adjusted $R^2$) indicates a very low level of fit. In other words, Offences do not do a very good job of explaining Fines. The standard error of the estimate is 68,005 (the average Fine is $32,030 with the outlier removed), which also indicates that Offences do not do a very good job of explaining Fines; the standard error is large in relation to the average Fines imposed.

<table>
<thead>
<tr>
<th></th>
<th>Summary</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td></td>
<td>0.118</td>
</tr>
<tr>
<td>R Square</td>
<td></td>
<td>0.014</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td></td>
<td>0.012</td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td></td>
<td>68005</td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td></td>
<td>1.79</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td>0.118</td>
</tr>
</tbody>
</table>

The Durbin-Watson value is about 1.8 and between the critical values of 1.5 and 2.5, so the assumption is that there is no first order linear auto-correlation in the model. The Durbin-Watson tests the error terms from the regression to see if error terms are related. In instances where the error terms follow a pattern (usually a series of positive errors followed by a series of negative errors), the estimated standard errors of the regression terms may be biased and the regression model may also be biased (Draper & Smith, 1998). In this analysis, the Durbin-Watson value of 1.8 indicates that the error terms are independent.
A positive Pearson correlation indicates that the independent and dependent variables are positively related (Wu et al., 2014). In this case, that would mean Fines increase with increasing Offenses. The Pearson correlation measures the linear dependence between Fines and Offences and can take on a value between -1 and +1. A Pearson correlation that is negative indicates a negative relationship; when Offences go up, Fines go down and the closer the Pearson correlation is to -1 the stronger the relationship. A Pearson correlation that is positive indicates a positive relationship; when Offences go up, fines go down. A Pearson correlation that is zero would indicate no relationship between Fines and Offences. As can be seen in Table 2 above, the Pearson correlation in this regression analysis is .118, showing a weak, positive relationship between Offences and Fines.

The analysis of variance (ANOVA) shows the amount of variance accounted for by the regression and the amount that is due to error. When a large amount of the variance is due to error, the value of the model is reduced. It is desirable to have the regression account for a large amount of the variance, and when it does, the F-test performed on the relationship between regression and error will be relatively high and significant. As can be seen in Table 3 below, the F-test is significant (at .005) indicating that there is a linear relationship between Fines and Offences. An F-test value that is close to 1 would imply that the null hypothesis may be true, that there is no positive relationship between Offences and Fines, but that is not the case in this analysis as the F-test is closer to 8.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>3.602E+10</td>
<td>1</td>
<td>3.602E+10</td>
<td>7.788</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>2.539E+12</td>
<td>549</td>
<td>4.625E+09</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2.575E+12</td>
<td>550</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The linear regression model generates an equation with an intercept (coefficient or B value for Constant in Table 4 below) and slope factor (coefficient or B value for Offences) that represents the best fitting linear equation to the input data. The coefficient of Offences is 7509 and the coefficient of the intercept is 4023, so the equation generated by the regression to explain the relationship between Offences and Fines is:

\[ \text{Fines} = 4023 + 7509 \times \text{(Offences)} \]

The positive value of 7509 indicates that as Offences go up, fines go up. For the null hypothesis to be true, the slope factor (coefficient for Offences) should be negative – as Offences go up, Fines go down. The t-value for Offences is significant, which implies that the slope factor is significant and should be considered as valid with a high level of confidence (the significance level is .005). The t-value is the coefficient (B) divided by the standard error of the coefficient and the larger that ratio is, the more likely the variable will be significant. A 95% confidence around the estimate shows a lower bound of 2223 and an upper bound of 12795, and does not include a negative component. These results implies that there is a high confidence, as well as a positive relationship between Offences and Fines and that the slope of the equation is somewhere between 2223 and 12795. Because the t-value for Offences is positive and significant, and the 95% confidence level for the upper and lower bounds for Offences are also positive, the regression model shows that as the level of Offences increase (are more serious), Fines go up. The hypothesis that smaller fines are given to more serious offenders would be rejected; there should be a negative slope or relationship between Offences and Fines to accept the hypothesis.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
</table>

Table 4 – Regression Output for Fines by Offences
### Multiple Regression Model

To better understand what variables can explain Fines, a multiple linear regression was performed that includes all the variables in the data set. When introducing all variables, the coefficients in the best-fitting equation can change as other variables may contribute more to the fit, in other words, other variables in the data set may help explain Fines. First, a factor analysis is generated that identifies the importance of all the input variables and how much they are likely to contribute to the predictive equation that is generated in the multiple regression model. When all the variables are included in the model, Cost has the strongest relationship with Fines as shown in Figure 4. Some of the variables are not likely to provide any value to the explanation of Fines and are dropped from the factor analysis due to a lack of any significance.

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>4023</td>
<td>10446</td>
<td>.385</td>
<td>700</td>
<td>24541.842</td>
</tr>
<tr>
<td>Offences</td>
<td>7509</td>
<td>2691</td>
<td>.118</td>
<td>2.791</td>
<td>12795.085</td>
</tr>
</tbody>
</table>

**Fig. 4 Importance Levels of All Variables in Relation to Fines**
Next the regression is rerun with all variables included. Adding the remaining variables provides a better fit to the data and produces the values shown in Table 5 below; however, all variables except Cost and Offences are dropped from the model due to a lack or significance and their ability to explain Fines. The $R^2$ value has improved from .014 in the prior regression that only included Offences, to a value of .363 in the multiple regression. This implies that the multiple regression model does a better job of explaining Fines. Likewise, the standard error of the estimate is reduced, although it is still high relative to the average Fine of $32,030 with the outlier removed.

Table 5: Summary of Multiple Regression

<table>
<thead>
<tr>
<th>Summary</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>0.602</td>
</tr>
<tr>
<td>R Square</td>
<td>0.363</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.359</td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td>52214</td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td>1.99</td>
</tr>
</tbody>
</table>

The ANOVA shown in Table 6, as in the previous regression, finds the F-test is significant indicating that there is a linear relationship between Cost, Offences and Fines. An F-test value that is closer to 1 would imply that the null hypothesis may be true, that there is no positive relationship between Offences and Fines, but that is not the case in this analysis as the F-test is over 18.

Table 6: Analysis of Variance for Multiple Regression of Fines by Cost and Offences

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>5.967E+11</td>
<td>12</td>
<td>4.973E+10</td>
<td>18.107</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>9.942E+11</td>
<td>362</td>
<td>2.746E+09</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1.591E+12</td>
<td>374</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The multiple linear regression model output shown in Table 7 generates an equation with an intercept and slope factors for Costs and Offences. The coefficient of Offences is 5757 (again positive although smaller than in the previous linear regression); the coefficient of Costs is 3.084 (also positive); and the coefficient of the intercept is -19350 (negative). Both Offences and Cost are significant with upper and lower bounds that are also positive meaning the actual values are very likely to be positive. The intercept value of -19350 is not significant; the significance level is .327 which is > .05. Usually a level or .01 or .05 is used as the cutoff for significance (see Wu et al., 2016). The equation generated by the regression to explain the relationship between Offences and Fines is:

\[ \text{Fines} = 5757 \times \text{(Offences)} + 3.084 \times \text{(Costs)} \]

The positive value of 5757 and 3.084 indicate that as Offences go up and as Costs go up, Fines go up and rejects the hypothesis that smaller fines are imposed for more serious offences.

### Table 7 –Multiple Regression Output for Fines by Costs and Offences

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>-19350</td>
<td>19717</td>
<td>-.981</td>
<td>.327</td>
<td>-58123.492</td>
</tr>
<tr>
<td>Offences</td>
<td>5757</td>
<td>2924</td>
<td>.090</td>
<td>1.969</td>
<td>.050</td>
</tr>
<tr>
<td>Cost</td>
<td>3.084</td>
<td>.255</td>
<td>.554</td>
<td>12.105</td>
<td>.000</td>
</tr>
</tbody>
</table>

### Discussion and Conclusion

The present paper attempts to test the hypothesis that the IDA exhibited “capture” by its security industry members in its imposition of penalties for misconduct by not setting penalties in proportion to the severity of offences. To this end, the paper uses data from 552 observations.
on cases where the IDA imposed fines on individual members. Specifically, the paper tests whether smaller fines were imposed for more serious offences. The findings of the paper were inconsistent with previous studies, which have found that SROs are reluctant to impose penalties that are proportionate to the offences committed by their members (see McCaffrey & Hart, 1998; DeMarzo et al., 2005). The claim that the IDA may come to pursue enforcement strategies that benefit industry members in the form of relaxing industry-specific enforcement standards, minimizing rule violation costs for powerful members, exempting member firms from regulatory requirements, and enforcing rules violation in favor of special interest groups seems to be based more on anecdotal evidence and not on the outcomes of the empirical analysis. The empirical evidence presented here suggests that the IDA was going after quasi-criminal offences that have criminal elements attached to them. More specifically, the findings reveal that only investigation costs and quasi-criminal offences seem to have had any impact on the fines imposed on market participants.

The positive correlation between quasi-criminal offences with fines indicates that punishment was more severe for these offences than the otherwise much more serious improper sales practice offences. Even though previous studies have shown that Improper Sales Practices (i.e., discretionary and unauthorised trading, churning, etc.) offences resulted in more dollar losses and caused more harm to victims, they do not seem to have had any impact on the fines imposed on market participants (see Boyd, 2005; FAIR Canada, 2011a; Lokanan, 2015; Williams, 2012). Perhaps an argument can be made that the IDA was trying to protect the interests of its members and the industry by prosecuting the cases that have sound bites (to appease investors’ advocates) and ignore the seriousness of other offences that cause more harm to the public interests (see Fair Canada, 2011a; Rosen & Rosen, 2010; Williams, 2012).
It could also be that in order to stave off direct government intervention, the IDA had to be stricter with its regulatory response to quasi-criminal offences (Lokanan, 2017). This claim is in alignment with the wider literature on self-regulation, where SROs attempt to ward off mandatory government regulation through stricter enforcement of offences that appeal to the public interest (Brown & Davis, 2009; Crole, 2008; DeMarzo et al., 2005; Leight, 2010; Potter et al., 2014). The mere threat of government intervention may provide the SROs with the incentive to promulgate and enforce regulatory standards that are aggressive enough to prevent the government from doing its own enforcement of the SROs’ written rules. The best examples of these are the coal mining and nuclear power industries that Braithwaite (1995) and Rees (1994) so eloquently chronicled in their ethnographic accounts. As such, it is quite possible that the threat of government intervention can work to strengthen self-regulatory enforcement. However, securing compliance with SROs’ rules may only be attainable if there is a credible threat of government intervention (Carpenter, 2014; Leight, 2010; Raine & Dunstan, 2011). As Braithwaite so eloquently puts it, “self-regulation is frequently an attempt to deceive the public into believing in the responsibility of a[n] irresponsible industry. Sometimes it is a strategy to give the government an excuse for not doing its job” (Braithwaite, 1985, p. 9). Given this claim by Braithwaite, it may be that successful self-regulation can only be attained when the industry leaders themselves perceive that the future prosperity and the survival of the industry are dependent upon some sort of self-control (DeMarzo et al., 2005; Leight, 2010; Lokanan, 2015; Novak, 2014).

Indeed, part of the SROs’ bargain with the government is that they exist to serve the public interest. This bargain functions best when the SROs’ members are, to some extent, cooperative with the industry in the attempt to secure compliance (Brockman, 2004; Leight,
It may be that the SROs choose to offer compliance assistance and deal with the more serious improper sales practices offences in a cooperative manner by issuing terms and conditions, rewriting licenses, supervision and reprimands rather than imposing fines (Brockman, 2004; Lokanan, 2015). Of course, these sanctions are not used alone and can escalate in severity for serious infractions and non-compliance with SROs’ rules (Novak, 2014; Raine & Dunstan, 2011). However, these sorts of regulatory responses to rule violations often expose the SROs to harsh criticisms surrounding their public interest justification (Carpenter, 2014; Croley, 2008; Leight, 2010; Lokanan, 2017; Potter et al., 2014).

As mentioned earlier, the theoretical justification for self-regulation is to protect the public interest (Carpenter, 2014; Lokanan, 2017; Novak, 2014). However, the central question is whether the public interest can be effectively protected by SROs without any accountability mechanisms in place to negate the benefits associated with self-regulation. While this is heavily dependent on the particular regulatory context, the private interests are often equated with the public interest, whose members seek the sponsorship of SROs to promote their own interests (see also Crowley, 2008). The battle cry for public support, then, comes from the SROs themselves and not the vulnerable public (Brockman, 2004). The argument that SROs can lead to more efficient regulation and, thereby, be more effective in securing compliance in the financial industry, has, therefore, very little to do with protecting the public interest and more to do with the industries trying to protect their members from coming into contact with the justice system for non-compliance (Carpenter, 2014; Leight, 2010; Novak, 2014). If the SROs play “hardball” with their own members, they will be open to criticisms from within (Brockman & McEwen, 1990).
Perhaps more synonymous with the previous argument, is that self-regulation, as documented in the regulatory literature, promotes the interests of politically-effective interest groups (Bédard, 2001; Braithwaite, 2013; Brockman, 2004; Carpenter, 2014; Leight, 2010). This is particularly important in the investment industry where issues are often perceived to be complex by non-industry groups (DeMarzo et al., 2005; Lokanan, 2017). As such, it would seem somewhat obvious that, on paper, a self-regulatory system would impose lax penalties rather than a more coercive state-led enforcement system might (at least based on raw data). This enforcement pattern explains very little that is worth noting - particularly given the Canadian context in which there are all sorts of reasons to expect lax criminal and state regulatory enforcement in the financial industry in the first place (Lokanan, 2015; Rosen & Rosen, 2010; Williams, 2012). However, even if as the findings revealed, one cannot unambiguously say that the IDA was captured by the securities industry that should not end the inquiry. As a matter of fact, “there is a range of possibilities ranging from a ‘bad’ agency that consciously favors industry over a clearly identifiable public interest to a ‘good’ agency that seeks only to identify and serve the general welfare” (Kwak, 2014, p. 74). Agencies that identify with the former adopt regulatory mandates that shape their enforcement strategies and may work to favour some groups at the expense of the others (Carpenter, 2014; Croley, 2008; Novak, 2014). It may very well be that the IDA went after the smaller players in the industry for quasi-criminal offences and allowed the bigger players (who consistently circumvent the much more serious improper sales practices offences) to escape enforcement (McCaffrey & Hart, 1998; Brockman, 2004; Jordan & Hughes, 2007; Lokanan, 2014). In this sense, enforcement is said to work towards the advantage of the IDA’s members and the industry (Brockman, 2004; Lokanan, 2014a), and makes the Association difficult to defend in being an agency working in the public interest (Carpenter &
Moss, 2014). It is based on this recognition of the advancement concerning the commercial and political interests of SROs and their members, that the paper makes a number of interrelated contributions to the literature on regulatory capture.

**Contributions to the Literature and to Practice**

First, while a large body of research on regulatory capture has explicitly addressed utility regulation and, of late, political influence in regulation (Atkinson & Nowell, 1994; Dal Bó, 2006; Berry, 1979; Kelleher & Yackee, 2009), very little work has been done on regulatory capture and enforcement in the finance sector (Carpenter, 2014; Dal Bó, 2006; Etzioni, 2009, 2012; Lokanan, 2014a, 2014b; Schwarcz, 2013). The present paper fills this gap in the financial regulatory literature concerning the failure of self-regulation in Canada's securities markets and, at the same time, sends a real message for legislators, securities market participants, regulators, investment bankers and publicly traded firms that self-regulation does not work in finance.

Second, the issues dealt with here are of academic and also significant wider public and policy interest. From a teaching perspective, the results of this paper could easily be used in discussions in finance and accounting courses on financial market regulation at the university level. From a public policy perspective, the results could be presented to legislators in Ottawa to show the importance of a federal securities regulatory agency, such as the Securities and Exchange Commission (SEC) in the United States. The findings presented here are strong evidence to increase the call for a national securities regulator in Canada. A national regulatory agency for the securities industry is essential for the effective functioning of capital markets to maintain liquidity, lower costs of equity and debt financing, and investor confidence. In turn, securities markets with these characteristics facilitate new business formation and spur economic growth.
Third, the study of financial crimes presents many database challenges for researchers in the field (Karpoff, Koester, Scott, & Martin, 2004). Chief among these challenges is that the financial crime database only collects recorded events of enforcement outcomes; in other words, the actions (and not the inactions) taken by regulatory bodies (Lokanan, 2017). Here, the paper employs a unique data set to examine enforcement practices in Canada’s securities markets. The topic of regulatory capture is important, and the collection of a high-granularity database on penalty cases is highly valuable. In collating and calibrating the data from the cases, the paper adds to the existing literature by providing insights on how to use and analyse data from a complicated database to facilitate research on financial misconduct (Ali, Klasa, & Yeung, 2009; Elton, Gruber, & Blake, 2001; Gillan, Hartzell, Koch, & Starks, 2013; Harris, Jenkinson, Kaplan, & Stucke, 2014; Karpoff et al., 2004). In this sense, the paper displays some valuable, and clearly time-consuming, data collection to produce new insights on regulatory capture and the concrete and theoretically-founded dimension along which the data is analysed.

**Going Forward**

As with the wider regulatory debate, “the effectiveness (or ineffectiveness) of self-regulation varies enormously among industries” (Gunningham & Rees, 1997, p. 370). This is partly due to the “social and economic context” of self-regulation, “which varies widely, and partly to the self-regulation program’s institutional design, a highly variable matter as well” (p. 370). All of which combined to make generalizations of SROs’ enforcement performance to other industries extremely difficult (p. 370). This limitation provides direction for future research.

First, the present study examines the enforcement practice of only one self-regulatory organisation in Canada. Since every SRO is unique in its functions and operation, the findings as
presented cannot be generalizable about the enforcement practices of SROs in the investment industry in other jurisdictions (see also Bédard, 2001; Novak, 2014). For example, SROs in the United Kingdom, Asia and South America have impacted the securities industry in various ways (Lokanan, 2015). Future research should take stock of this impact and examine a broader sample of SROs with mandates to police the securities industry from various jurisdictions. Second, the sample in the present study only consists of disciplinary cases that went to an enforcement hearing. Future research should explore disciplinary actions of a broader group of registrants, whose complaints were “funnelled out” at the investigation and prosecution stage of the disciplinary process (see Brockman, 2004). Third, the threat (perceived or otherwise) to self-regulation in finance from investors advocates coupled with the increase in regulatory scrutiny from the government is likely to have been felt by members on the disciplinary hearing panels and reflected in the penalties imposed. Future research needs to take stock of this concern and examine the potential factors that may have had an impact on the sanctions imposed by the IDA’s disciplinary hearing panels responsible for penalty impositions.

References


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**Appendix 1**

**Variables Used in the Means Analysis in Table 1**

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Variable Type</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Hearing</td>
<td>Nominal</td>
<td>Categorized as follows: Settlement =1; Contested = 2; Expedited = 3; Appeals = 4.</td>
</tr>
<tr>
<td>Variable</td>
<td>Scale</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Offenders disciplinary history</td>
<td>Nominal</td>
<td>Equal to 0 for first timer offender; Equals to 1 if the offender has a disciplinary history.</td>
</tr>
<tr>
<td>Gender</td>
<td>Flag</td>
<td>Equals to 0 if offender is male; Equals to 1 if offender is female.</td>
</tr>
<tr>
<td>Offenders occupation</td>
<td>Nominal</td>
<td>Equals to 1 if the offender was a registered representative; Equals to 2 if the offender was a Branch manager; Equals to 3 if the offender was an executive.</td>
</tr>
<tr>
<td>Victims’ losses</td>
<td>Continuous</td>
<td>Continuous variable measured by amount of money the victim lost.</td>
</tr>
<tr>
<td>Investigation costs</td>
<td>Continuous</td>
<td>Continuous variable measured by the actual cost of the investigation.</td>
</tr>
<tr>
<td>Aggravating factors</td>
<td>Flag</td>
<td>Equals to 1 if there were aggravating factors; Equals to 0 otherwise.</td>
</tr>
<tr>
<td>Mitigating factors</td>
<td>Nominal</td>
<td>Equals to 1 if there were mitigating factors; Equals to 0 otherwise.</td>
</tr>
<tr>
<td>Number of Victims per case</td>
<td>Continuous</td>
<td>Continuous variable measured by the amount of victims affected in the case.</td>
</tr>
<tr>
<td>Offences</td>
<td>Ordinal</td>
<td>Ranked by severity: 5=Quasi-criminal; 4 = improper sales practice; 3 = conflict-of-interest; 2= misrepresentation and failure to corporate; 1= internal control offences.</td>
</tr>
<tr>
<td>Multiple offences</td>
<td>Continuous</td>
<td>Continuous variable measured by the number of offences per (multiple offences) case.</td>
</tr>
<tr>
<td>Fines</td>
<td>Continuous</td>
<td>Continuous variable measured by the amount of fines imposed by the hearing panel.</td>
</tr>
</tbody>
</table>