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L. Murphy Smith, Editor
Murray State University

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LETTER FROM THE EDITORS

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PROTECTING YOUR COMPANY'S INTELLECTUAL PROPERTY ASSETS FROM CYBER-ESPIONAGE

Martin S. Bressler, Southeastern Oklahoma State University
inda Bressler, University of Houston-Downtown

ABSTRACT

Today, spies might not be going after your military secrets. Instead, corporate spies might be attempting to steal your most valuable corporate secrets, often in the form of intellectual property. Even worse, corporate espionage attacks come from both domestic and foreign competitors. Corporate espionage could even be part of a foreign country's deliberate efforts to undermine the U.S. economy. Whether the espionage attack comes from a domestic or foreign source, the resulting impact can financially cripple a company. The FBI estimates the cost of corporate espionage to be $100 billion per year (Kirby, 2007).

Companies large and small utilize competitive intelligence to help shape strategic planning. But companies may cross the line, and venture beyond ethical and even legal boundaries. Sometimes well-meaning employees justify their actions as attempting to assist their employers in gaining market share and increasing corporate profits. In other cases, corporate spying might be a deliberate strategy to undermine competitors or even an entire industry. When a nation allows its companies to engage in corporate spying without punishment, it could be a menacing approach to undermine another country's economy.

This paper presents an overview of competitive intelligence, including key examples of companies and individuals engaging in corporate espionage. The authors then offer a model for companies to consider as a means to defend against corporate spying, including specific counter-measures businesses could deploy in their defense.

Keywords: competitive intelligence, corporate spying, trade secrets

INTRODUCTION

Spying could be as old as the beginning of civilization. We find among the earliest examples of corporate spying dating back to about 300 A.D.. China held a monopoly on silk production for hundreds of years until Nestorian monks smuggled silkworm eggs out of China hidden inside walking sticks (Podszywalow, 2012).

Much later, in the early 1800's, Yankee industrialist Francis Cabot Lowell travelled to Scotland under the guise of ailing health. In fact, Lowell spent months studying the cottonweaving mills and machinery for which Britain was well-known. The British textile industry replaced hand labor with water-powered looms that performed efficiently and effectively. Even in rural areas of England, the water-powered mills created personal fortunes for the owners as the mills could now be operated with only a handful of skilled workers (Fialka, 1997).

Because this industry and the success of the water-powered mills served as the foundation for the British economy, the British government passed patent protection laws and banned the export of textile-related technology (Fialka, 1997). Factories became virtual fortresses with spikes and broken glass placed strategically along the roof in order to deter spies from breaking in to steal information. In addition, owners swore workers to secrecy so that no information regarding the technology would be leaked to potential competitors. Despite all attempts to protect the textile industry, Lowell memorized the plans for the Cartwright loom while touring factories and brought the stolen technology back to the United States (Rosner, 2001).

Lowell's trip to the United Kingdom not only helped him become even more prosperous, the technology transfer fueled the Industrial Revolution in New England and elsewhere in the United States. By 1999, American Society for Industrial Security/PricewaterhouseCoopers (cited in Fitzpatrick, DiLullo, and Burke, 2004) estimated that 70 percent of U.S. firms' market value existed in intellectual property and trade secrets.

How significant is corporate espionage? Estimates vary significantly as to how big a problem corporate espionage might be. According to the FBI, the cost of corporate espionage appears to be approximately $100 billion per year (Kirby, 2007). As far back as 1999, the Society of Competitive Intelligence Professionals membership began increasing at a rate of 25% per year (New York Times, 1999). For firms that do not have their own competitive intelligence departments, consultants abound. These two actions suggest corporate espionage to be a significant problem facing corporate America.

While competitive intelligence can typically be found an element of many corporate strategies, competitive intelligence does not imply illegal activities. Competitive intelligence can prove a valuable tool in monitoring competitor activities, boosting sales, and making better deals with customers. In fact, a PricewaterhouseCoopers survey of CEO's of fast-growth companies reported that 84% believe competitor information important to their own company's profit growth and 33% also stated that the tough economy is making that even more so (Wellner, 2003).

Often sound competitive intelligence begins with simple steps such as monitoring competitors' websites and scanning industry press releases. Rosner (2001) stated that in many instances, "librarian types" provide good competitive intelligence by searching through publications and market studies. One way that researchers gather competitor information on websites is by examining what jobs the competition seeks to fill, which suggests what technologies you are developing in your Research and Development areas. Johnson (2000) suggested that today, as much as 90-95 percent of information included in espionage reports can be found in the public domain. Could it be that when companies or governments provide too much information to the public, they could be making espionage easier for the spies?

Lavelle (2001) reported that U.S. companies on average spend about $1 million per year tracking their competitors. Unfortunately, when the economy takes a dive and corporate profits get squeezed, companies cut back on their competitive intelligence efforts. However, those companies that continue their competitive intelligence activities often employ former intelligence officers from military and government agencies. Former CIA officer Guy Dubois (cited in Rosner, 2001) stated “there are no limits to what an agent will do”. Operating under those guidelines, the likelihood of crossing the line from competitive intelligence to illegal corporate spying significantly increases.

Protecting your business and the valuable intellectual property can be a daunting challenge. Companies should first understand that every business is vulnerable, and that the intellectual property of a business should be guarded like the crown jewels. In fact, as global competition increases, we could see a proportionate increase in corporate espionage activities. Lewicki (cited in Chan, 2003) believed that as competition intensifies, corporate espionage activities increase. In addition, Lewicki (cited in Chan, 2003) argued that as espionage activities increase, security measures increase, which further leads to workplace distrust.

Table 1 in the Appendix provides a short list of some of the many cases of corporate espionage and the resulting financial impact on the corporate victim. However, in addition to the financial loss, companies need to consider the loss of long-term competitiveness resulting from stolen intellectual property.

Table 1: Examples of Corporate Spying

Target	Year	Area of Attack	Estimated Cost
Motorola	2011	Technology	n.a.
General Motors	2005	Hybrid technology	n.a.
DuPont	2004	Proprietary information	$400 million
Air Canada	2004	Flight data	$200 million
General Motors	1993	Trade secrets	n.a.
Deloitte & Touche	1997	Software theft	$4-6 million
Ford Motor Company	2009	Design specs	n.a.
Pittsburgh Plate Glass	1997	Secret formula	n.a.
Gillette	1998	Product designs	n.a.
U.S. high-technology	1985-1989	Technology transfer	$105 billion

Technology

With advanced technologies, corporate intelligence could be easier than ever before, even for smaller businesses. A great deal of information can be gathered simply by scouring competitor's websites for product information, employee and customer lists, and general news releases. Hackers go beyond the boundaries of intelligence gathering by engaging in illegal activity.

Traditionally, spying technology companies marketed primarily to the military and clandestine services. Today, however, corporate competitive intelligence departments could be the best customers of the companies that market spying technology (New York Times, 2006). At the American Society for Industrial Security (ASIS) International Conference in San Diego, approximately 20,000 corporate security experts attended to become updated with the latest information regarding corporate security. The Freedonia Group reported that worldwide, companies spent $95 billion on security measures in the previous year (New York Times, 2006).

The same spying technology portrayed on television and in the movies can easily be purchased from a number of companies that specialize in such products. Laser microphones use a beam of light in order to pick up conversations from a distance, and microphones can be installed in smoke detectors, alarm clocks, and even a computer mouse (Clear and present danger, 2004).

One company that specializes in providing security services, the Internet Security Advisors Group, conducts espionage simulations to help find holes in company security. According to their president, Ira Winkler, "in 90 percent of physical tests, getting into company offices is so easy that it's pathetic" (How real is the risk of Corporate Espionage Today, 2009).

Competitive intelligence terminology

anti-hacking-the protection of computers through a variety of means, including firewalls, intrusion detection software packages, deception methods (Schlotter, 2003).

bluesnarfing-stealing the contents of someone else's address book using a Bluetooth cell phone (Clear and Present Danger, 2004).

clipping services-a media monitoring service, a press clipping service, or a clipping service provides clients with copies of media content, which is of specific interest to them and subject to changing demand; what they provide may include documentation, content, analysis, or editorial opinion (http://en.wikipedia.org/wiki/Media_monitoring_service).

ethernet over power (EoP)-allows an employee or other company insider, the ability to download data from the network with a device plugged into an electrical outlet without revealing their location (Security Director's Report, 2009).

garbology-the study of the material discarded by a society to learn what it reveals about social or cultural patterns or in this context, going through trash (corporate or from employee residences) for the purpose of gathering competitor information (http://dictionary.reference.com/browse/garbology?s=t).

hackers-someone who accesses a computer system by circumventing its security system (http://en.wikipedia.org/wiki/Hackers).

honeypots-(also sometimes referred to as honeynets) originally designed as training tools, honeypots are purposely less secure boxes designed to allow hackers to attack the system, thereby allowing time to detect the hacker and defend valuable data (http://www.sans.org/reading_room/whitepapers/attacking/anti-hacking-protection-computers_38)

keyloggers-computer hardware that maintains a log of computer keystrokes in order to detect unauthorized access to computer information (Security Director's Report, 2009).

media scanning-as part of a firms' global environmental analysis, media scanning can include every material published in the media such as television, newspapers and periodicals to monitor competitor activities and new product development (http://en.wikipedia.org/wiki/Global_environmental_analysis).

pretexting-contacting as competitor under some pretext, such as pretending to be a customer to obtain pricing or other competitor information, or in some cases, pretending to be an employee in an attempt to gather data, steal information, or plant listening devices. (New York Times, 2006).

risk analysis-a technique to identify and assess factors that may jeopardize the success of a project or achieving a goal. This technique also helps to define preventive measures to reduce the probability of these factors from occurring and identify countermeasures to successfully deal with these constraints when they develop to avert possible negative effects on the competitiveness of the company (http://en.wikipedia.org/wiki/Risk_analysis_(business).

social engineering-non-technical or low-technology means such as lies, impersonation, tricks, bribes, blackmail, and threats used to attack information systems (http://www.sans.org/security-resources/glossary-of-terms/).

trade secrets-"trade secrets represent a formula, pattern, compilation, program, device, method, technique, or process that: derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use, and is the subject of efforts that are reasonable under the circumstances to maintain its secrecy" (Section 1 of the Uniform Trade Secrets Act of 1985, cited in Fitzpatrick, et al, 2004).

TRIPS agreement-developed during the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) talks, Trade-Related Aspects of Intellectual Property Rights (TRIPS). The agreement established minimum standards in defining intellectual property rights, including patents, trademarks, industrial designs and trade secrets. The TRIPS Agreement was reached in 1996 and amended in 2005 (Correa, 2007).

ENEMIES, DOMESTIC AND FOREIGN

By 2001, the American Management Association reported 46 percent of organizations monitored employee email, 36 percent monitored employee computer files and 33 percent utilized video surveillance to monitor employees (Fitzpatrick, DiLullo, and Burke, 2004). Protecting company information and intellectual property should first begin with securing the company facility and perimeter. Controlled parking, internal and external access control, and properly-trained manned security should be the first line of defense. In addition, alarms and closed circuit television, and mandatory visitor escort can be good preventive measures (Wellner, 2003).

Employees

Employees, knowingly or unknowingly, can be a major contributor to competitive intelligence losses (Wellner, 2003). According to the FBI, disgruntled employees and former employees commit the most thefts (Lazzara, 2001). Fitzpatrick, DiLullo, and Burke (2004) also cite employees as a company's weakest link in the effort to secure trade secrets.

Outsiders, sometimes pose as a salesperson, security or insurance investigator, customer, or potential employee in order to gather competitor information. In one case, one Milliken employee posed as a business student gathering research for a paper and another employee pretended to be a Swiss banker looking for a potential investment opportunity (Eisenberg et al, 1999).

In some cases, employees can be deceived into actually assisting a competitor (Chabrow, 2008). Employees may not be aware of what company information could be considered sensitive nor methods to prevent accidental disclosure. For example, Wellner (2003) points to an example of a small Delaware company that fell victim to a competitor as a result of discarded correspondence By the company owner's estimate, a simple document shredder could have saved tens of thousands of dollars and a three-year legal battle.

Security experts find five reasons that an employee might be motivated to hand over company secrets to a competitor or foreign nation. The MICES principle (Fitzpatrick and Burke, 2001; Barron, 1985), refers to the money, ideology, compromise, ego, or sexual entrapment as the means whereby corporate spies use employees or former employees to assist them in stealing corporate secrets.

Money often motivates employees to betray their employer and many times an individual will be motivated by greed. In cases such as these, competitors seek out a disenchanted employee looking for a way to get back at his or her employer. Others can be motivated by ideology. These employees will betray their country and/or employer, usually out of loyalty to another country or philosophy. In some cases, employees can be trapped into a compromising situation. Corporate spies will coerce employees into stealing trade secrets by threatening to disclose personally or professionally damaging information (Javers, 2007).

In other cases, spies will appeal to an employees' ego. The spies convince the employee that their employer undervalues his or her abilities, but that the competitor recognizes his or her talent and offers a high-paid international consultancy. Finally, some employees get caught through sexual entrapment. The spies then use blackmail or extortion, often supported by photographs, videotapes or other evidence in order to motivate employees to disclose trade secrets.

Human Resource departments will often be the first place competitors seek out corporate information. Information gatherers posing as job applicants will ask numerous questions about new products or locations. OmniSonics Medical Technologies of Massachusetts, (Wellner, 2003) reported job applicants seeking detailed company information as becoming more common (p. 40). Human Resource Managers should therefore become more vigilant in screening job applicants, checking references, and verifying contact information. As a precaution, software firm MindBridge, (cited in Wellner, 2003) does not send access passwords to persons who use free email accounts, such as Yahoo and Hotmail.

Management should make an effort to inform employees of what constitutes confidential information as you cannot assume every employee will know what information could be considered confidential without being told. Specifically inform all employees what can and cannot be discussed in public. Sometimes competitors will contact front-line employees such as a receptionist, posing as a reporter or investor in an attempt to solicit company information. In other instances, a casual conversation at trade shows with representatives from rival companies could result in sensitive information being leaked (Lavelle, 2001).

Just as passwords serve as a way to keep nonemployees from accessing your computer server, separate passwords can also be established to restrict employee access to areas that contain confidential information. Password protected areas can also allow approved customers and suppliers access to areas that you would not want available to hackers or competitors.

Employees should take extra caution when traveling. Laptops and smart phones loaded with company information left unattended in places such as hotel rooms could be stolen for the information. Even cell phone conversations in public places, such as airports might be overheard by competitors.

Another source of information leak can be prevented by not allowing employees to use personal electronics (computers, cell phones, etc.) for company work and vice-versa. Restricting company work to company equipment allows for greater ease should you need to seize or confiscate electronic devices you think might be used for disseminating confidential information to competitors (Wellner, 2003).

Finally, exit interviews serve as a reminder to employees leaving the company to keep company information confidential. In addition, employees leaving the company should sign non-compete/nondisclosure agreements (if applicable) during the exit interview.

Foreign nations and competitors

In 2008, the Australian Security Intelligence Organization issued a warning stating that businesses with highly sensitive defense capabilities and government information will increasingly become targets of foreign-government spying (How Real is the risk of Corporate Espionage Today, 2009). Businesses that typically outsource data processing to firms in India could also be prone to attack through apparent widespread electronic eavesdropping and industrial espionage (How Real is the risk of Corporate Espionage Today, 2009).

India appears to have a booming industry in corporate spying (New York Times, 2012). According to the Associated Chambers of Commerce and Industry of India (Assocham), more than 35 percent of companies in India use corporate espionage to spy on their competitors as well as monitor employee social media websites (New York Times, 2012). Gottipati (2012) reports that companies in India will also use headhunters to interview people from certain companies as a ruse in order to get them to reveal business strategies of their current employers.

But India should not be considered the only foreign nation engaged in corporate spying. According to Tarm (2011), U.S. counterintelligence experts believe China to be the country most actively engaged in espionage in the United States. Increasingly, more and more cases of corporate espionage involve China. Riley, Vance, and Schneeweiss, (2012) cite a report by 14 U.S. Intelligence Agencies that charges Chinese spy agencies of engaging in a major campaign of industrial espionage.

Kirby (2007) also reported that a former Chinese diplomat, Chen Yonglin, claimed China had a network of 1,000 informants and the director of the Canadian Security Intelligence Service warned that half of all foreign spies in Canada are from China. General Keith Alexander, Director of the National Security Agency refers to corporate espionage by China as “the greatest transfer of wealth in history” (Riley, M., Vance, A., and Schneeweiss, Z., 2012).

In 2007, *The Air Force Magazine* (cited in Richardson and Luchsinger, 2007), reported the top five countries accounted for 57% of all technology-related espionage. The same report identified China, India, Pakistan, Iran, Japan, France, and Israel as the countries responsible for most technology-related espionage. In addition, the report raised the concern that such technology theft could erode current U.S. military advantage in high-tech weaponry.

Despite technology’s use as a weapon to attack a company in an attempt to secure confidential information, technology can also serve as a defense to attacks by competitors and foreign governments. In 1989, the SANS Institute formed to become a leading cooperative research and educational organization, bringing together more than 165,000 security professionals around the globe for the purpose of sharing information and seeking solutions to security challenges (www.sans.org). Considered to be the largest and most trusted information security training provider in the world, the SANS Institute offers training programs, security certification, and a research library containing information on information security (www.sans.org). SANS assists in not only providing training for computer security professionals, but also helps in developing and disseminating best practices across the industry.

LEGISLATION

Intellectual property generally consists of patents, copyrights, industrial design rights, trademarks and trade secrets (http://en.wikipedia.org/wiki/Intellectual_property). However, some jurisdictions define trade secrets somewhat differently. Today, in order to achieve international agreement in defining intellectual property, the World Trade Organization (WTO), through the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, all members of the WTO must adhere to the rules and definitions established regarding intellectual property (Correa, 2007).

For the United States, the first attempt in protecting intellectual property rights at the federal level began with the Interstate Transportation of Stolen property Act (ITSA) of 1934. The ITSA sought to address trade secret theft through interstate or foreign commercial activities. Ruhl (1999) points to one of the weaknesses of the legislation in defining intangible property in such a manner that in effect, renders the legislation ineffective in many trade secret cases. However, this legislation served as an important first step in protecting the intellectual property held by U.S. companies.

The ITSA was later followed by the Uniform Trade Secrets Act (UTSA) of 1979 and amended in 1985, which attempts to unify the various state laws designed to protect trade secrets. In addition, the law transfers trade secret protection to statutory law from common law and in addition, addresses other trade secret issues not necessarily covered by state statute (Horovitz, 2009). Since adoption of the UTSA by forty-five states, the UTSA could be considered the primary basis for trade secret protection in the country today.

Despite these two major pieces of legislation, corporate spying continued to be a problem for U.S. firms. Corporate executives called for new laws that might better address the problem. Congress held two major hearings where the Director of the Federal Bureau of Investigation, Louis Freeh, testified regarding the need for additional legal protection for U.S. companies (Mason, Mossinghoff, and Oblon, 1999). Director Freeh's testimony supported the call for new federal legislation by industry leaders working on behalf of Silicon Valley companies and the aerospace industry.

The hearings concluded that existing legislation, principally the Interstate Transportation of Stolen Property Act and the Mail Fraud and Fraud by Wire statutes did not adequately address economic espionage issues. As a result, Congress enacted the Economic Espionage Act (EEA) in order to address the lack of uniformity among state laws and the need to augment existing patent and copyright laws.

In 1996, President Bill Clinton signed the Economic Espionage Act (EEA). This legislation seems to be directed more toward foreign agents and foreign governments. The EEA defines economic espionage and trade secret theft as criminal activities and provides prison sentences of up to ten years and fines for up to $5 million (Horovitz, 2009). The EEA goes beyond patent and copyright protection to include trade secrets.

The EEA goes farther than the UTSA, first, by permitting federal authorities the use of wiretaps as a means to explore possible violations under the terms of the act. The EEA also restricts what information or knowledge a person can and cannot disclose, even through lawful means, such as previous employment. An interesting provision of the law keeps trade secrets confidential by the court, which seems to contradict other aspects of our legal system whereby the defendants maintain the right to be aware of all evidence being used against them, and the right to challenge that evidence in an open courtroom. Perhaps most importantly, the EEA criminalizes trade secret theft committed by foreign entities as well as domestic companies or individuals (Ruhl, 1999).

Mason, Mossinghoff, and Oblon (1999) acknowledged that in addition to the EEA, other federal statutes address trade secret issues. For example, they refer to 18 USC 1905 which prohibits officers and employees of the U.S. government, as well as companies that do business with the federal government, from disclosing any unauthorized information. Mason, Mossinghoff, and Oblon (1999) further point to the sections of the EEA where a purpose of the Act is to prevent trade secret theft by a foreign government.

Trade secrets defined

Koen and Mitchell (2005) offer the following definition of trade secrets "Trade secrets may take the form of customer lists, business and marketing plans, pricing and financial data, research and development, production methods, product formulas, and generally anything that makes an individual company unique, and that would have value to a competitor." Typically, a trade secret could be a formula, pattern, technique, or process that provides a business with a competitive advantage. In addition, the trade secret could not be considered known by current or potential competitors, and the company takes reasonable precautions to keep the trade secret a secret.

Unlike patents and copyrights, trade secrets do not involve application to the government and therefore, the plaintiff needs to be able to demonstrate that the trade secret in question meets the required definition. One case involved the New York Jets and New England Patriots football teams during the 2007 season. During the season-opening game, league security officials caught the Patriots videotaping the Jets' play signals. While stealing team signals does not violate NFL rules, "videotaping of any type, including but not limited to taping of an opponent's offensive or defensive signals, is prohibited on the sidelines, in the coaches' booth, in the locker room, or at any other locations accessible to club staff members during the game" (Horovitz, 2009).

Corporate spying also raises new questions regarding Directors' and Officers' corporate liability. Lenckus (2006) points to the case of Hewlett-Packard Company in California, where the state Attorney General filed charges against executives for allegedly illegally collecting phone records of company board members and reporters. Hewlett-Packard Company used vendors to obtain the telephone records through pretexting, whereby the telephone companies were deceived into believing that they released those personal records to the customers. For

Hewlett-Packard Company, the issue also included the question as to whether company liability would be covered by their corporate liability insurance.

Prevention

Prior to hiring new employees, employers should thoroughly screen applicants to include background investigations of prior behaviors, criminal background checks to uncover potential vulnerability to compromise and sexual entrapment, and credit checks as employees with poor credit may be especially vulnerable to corporate spies.

Background checks of personal behavior should look for any instances of inappropriate personal conduct, alcohol abuse, or illicit drug use. Chemically-impaired individuals have been observed to divulge proprietary information/trade secrets through both accidental and boastful (i.e.: ego enhancing) disclosures (Barron, 1985; Pittori, 1998, cited in Fitzpatrick). Although unpopular since the beginning of the recent recession, credit investigations can uncover excessive debt. The investigators should also look for persons living beyond their means. Financial problems can also be a result of children's tuition, family health care costs, lifestyle, gambling or other addictions.

While many consider polygraph testing controversial and legislation in 1988 limited its use, companies can use other forms of integrity testing. Questions of reliability, criterion-related validity, construct validity, the possibility of answering second-guessing questions in order to provide misleading test results, and the potential adverse impact of integrity tests need to be thoroughly addressed (Sackett, Burris, and Callahan, 1989). Nevertheless, at least in the United States, paper and pencil integrity tests seem to be replacing polygraph tests. According to Shaffer and Schmidt (2008) by 1990, an estimated 6,000 organizations administered more than 5 million integrity tests per year. Few states place limitations on integrity testing, despite some questions with regard to use of results.

During employment

Companies should also continue to employ intellectual property protection efforts after employment. Many preventive measures exist, including simple steps such as requiring secure passwords. In the cases of Lucent Technologies, IDEXX, and Dennison the naiveté of employees was used to secure passwords and other sensitive information (Fitzpatrick, W., DiLullo, S., & Burke, D. (2004). Companies can also use a variety of social engineering methods, such as keystroke logging software/hardware to monitor employee computer activity.

Cameras with taping capability provide a measure of safety and security for both the company and the employee. Those employees considering theft of company information might be less likely to do, when under camera surveillance. In addition, security personnel should be well-trained in how to prevent and detect corporate theft.

Companies can also use deception/planting fake products or information. According to Kirby (2007), some believe that Steve Jobs at Apple Computer used false information of a fake product in order to flush out a mole operating within Apple. Eisenberg et al. (1999) cited what could perhaps the most creative (but illegal) defense could be the "dirty tricks" campaign Waste

Management developed against California agricultural firm Cadiz, when Cadiz opposed Waste Management's efforts to build a garbage dump near its property.

As employees and others might sort through trash for information, shredding confidential information should be a high priority. Likewise, a simple stamp that says "Confidential" used on documents containing sensitive information could help employees better handle corporate documents.

Once management develops a company-wide atmosphere designed to protect company secrets, the next step should be to conduct a risk analysis assessment to determine where and how the company might be vulnerable to corporate espionage. Management should consider hiring a professional security consultant who understands the nature of your business and the industry environment in which your company operates.

CONCLUSION

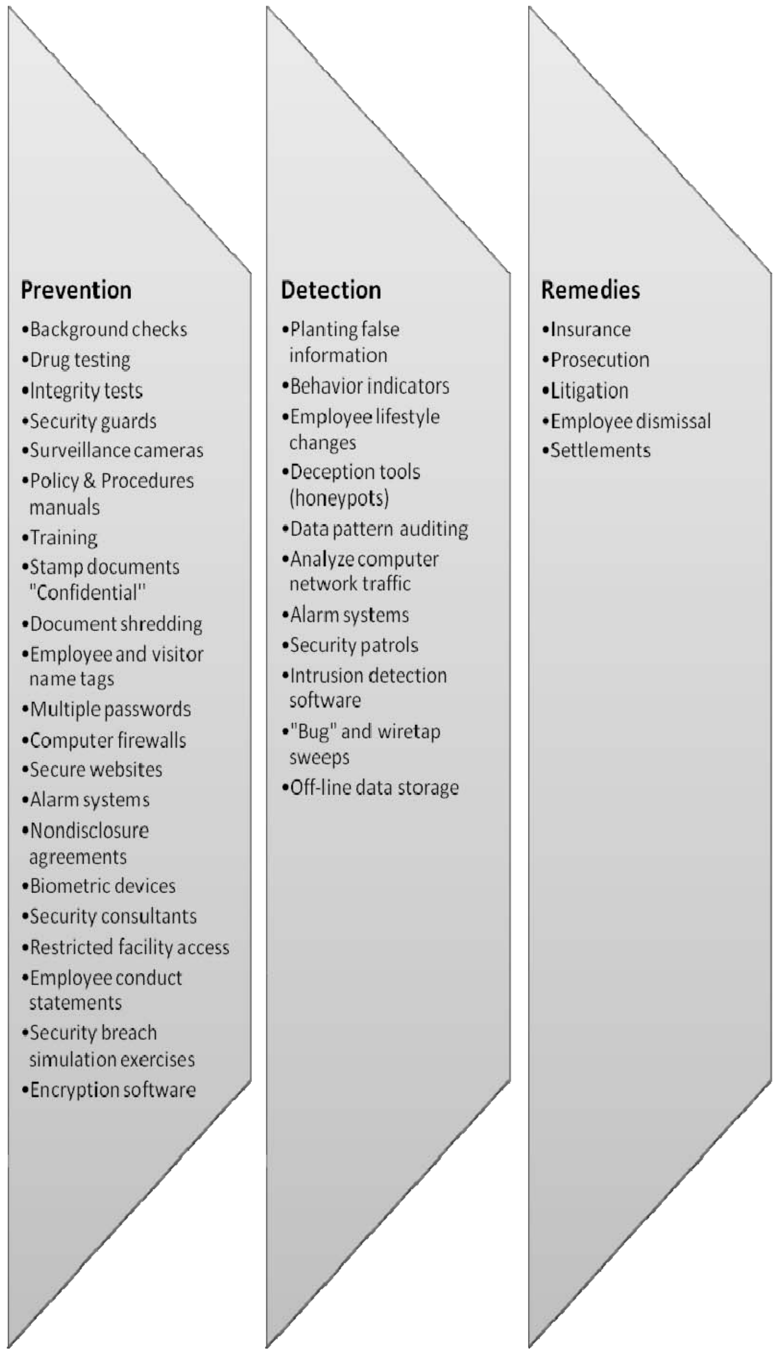
Competitive intelligence can be considered essential to success in business and should shape strategic direction. However, as important as technology and sophisticated methods might be, sometimes the best information can be found hiding in plain sight. An example of this can be found in the 1970's when Xerox faced fierce market challenge from IBM, but instead, lost significant market share to Canon (Finder, 2006). Similarly, Kodak's' photography paradigm centered on using silver nitrate, which kept Kodak from adopting digital photography until long after Fuji and Sony (Finder, 2006).

As can be seen from the model in Figure 1, there happens to be many more methods of preventing loss due to corporate espionage than espionage detection, or remedies. Although many companies view preventive measures as costs, preventive measures should actually be viewed as investments in protecting intellectual property that could be valued in the billions of dollars.

Of course, although methods exist to detect corporate espionage and in addition, suggest some remedies for those businesses that fall victim to corporate espionage, the best course of action would be to develop sound preventive measures that would preclude competitors from stealing trade secrets and other confidential information.

Companies must bear the responsibility for training and communicating to employees the importance of corporate security. According to Grosso (2000), "If an employee has access to anything an employer deems confidential, then the employee is obligated to maintain the secrecy of that information, no matter how mundane or nonscientific the information may be."

Figure 1: **A Three-Stage Model for Prevention and Detection of Corporate Espionage**



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THEORIES OF JUSTICE AND MORAL BEHAVIOR

Khalid M. Dubas, Mount Olive College
Saeed M. Dubas, University of Pittsburg at Titusville
Rajiv Mehta, New Jersey Institute of Technology

ABSTRACT

Two psychological theories of moral behavior and justice—Kohlberg's Theory of Moral Development and Haidt's Moral Foundations Theory—and two normative frameworks for justice are presented and evaluated in this paper. Moral Foundations Theory derives its fundamental ideas from the works of David Hume, Jonathan Haidt, Jesse Grahm, etc. The two normative frameworks are: Transcendental Institutionalism Framework, and Realization-Focused Comparative Framework. Transcendental Institutionalism derives its inspiration from the works of political philosophers such as Thomas Hobbes, Jean-Jacques Rousseau, Immanuel Kant, and John Rawls, while the Realization-Focused Comparative Framework originated from the works of political philosophers, mathematicians, and economists such as Adam Smith, Marquis de Condorcet, Jeremy Bentham, Mary Wollstonecraft, Karl Marx, John Stuart Mill, Kenneth Arrow, and Amartya Sen. Kohlberg's Theory of Moral Development shows increasing role for reason as a person goes through various stages of moral development. The Moral Foundations Theory provides a primary role to instincts and emotions while the last two frameworks provide a greater role to reason and reasoning than to emotions and instincts.

The strengths and weaknesses of each theory or framework are evaluated, and where appropriate, one theory is compared with other justice and moral conceptualizations. While descriptive theories are useful in understanding moral behavior and justice, normative theories are required to determine rules for collective action. Arguments are presented that the Transcendental Institutionalist Framework is superfluous and should be replaced entirely by the Realization-Based Comparative Framework for practical attempts to reduce manifest injustice and to enhance justice. This research reaches across several disciplines to discuss and evaluate descriptive and normative theories of moral behavior and justice. In particular, the Social Choice Theory, while well-known in economics and political science, is not well known in other disciplines. This study brings the Social Choice Theory to the forefront for situations where a group or society wants to select among various alternatives by basing its decisions on the individual preferences of its members using principles of justice. As an example, attempts to form a government of the people, for the people, and by the people would also fall within the domain of the Social Choice Theory.

INTRODUCTION

The Importance of Moral Behavior

The concepts of moral behavior, ethics, and justice have been addressed by psychologists, economists, philosophers, profits, and others. The fundamental principle of morality is that it must be useful for the society. A more moral society is more successful than a less moral society. In the former society, people will be able to work better through better collaboration, attain higher satisfaction, and face fewer social problems than in the latter society. Moral virtues strengthen individuals and their societies. Non-virtuous people are punished while virtuous people are held in high regard. Hume (1777) wrote "If usefulness, therefore, be a source of moral sentiment, and if this usefulness be not always considered with a reference to self; it follows, that everything, which contributes to the happiness of society, recommends itself directly to our approbation and goodwill. Here is a principle, which accounts, in great part, for the origin of morality; And what need we seek for abstruse and remote systems, when there occurs one so obvious and natural." Similarly, Arrow (1974) notes "Certainly one way of looking at ethics and morality, a way that is compatible with this attempt at rational analysis, is that these principles are agreements, conscious or, in many cases, unconscious, to supply mutual benefits. … Societies in their evolution have developed implicit agreements to certain kinds of regard for others, agreements which are essential to the survival of the society or at least contribute greatly to the efficiency of its working. It has been observed, for example, that among the properties of many societies whose economic development is backward is a lack of mutual trust…. And it is clear that this lack of social consciousness is in fact a distinct economic loss in a very concrete sense, as well of course as a loss in the possible well-running of a political system."

The Role of Reason and Reasoning versus Instinct and Emotions

Discussing superstition and justice, Hume (1777) states: "Those who ridicule vulgar superstitious, and expose the folly of particular regards to meat, days, places, postures, apparel, have an easy task; while they consider all the qualities and relations of the objects, and discover no adequate cause for that affection or antipathy, veneration or horror, which have so mighty an influence over a considerable part of mankind." He goes on to further say "But there is this material difference between superstition and justice, that the former is frivolous, useless, and burdensome; the latter is absolutely requisite to the well-being of mankind and existence of society."

In search of the foundations of morals, scholars have often debated the relative importance of reason and sentiment. Hume (1777) notes:

> "There has been a controversy started of late, much better worth examination, concerning the general foundations of Morals; whether they be derived from Reason, or from Sentiment; whether we attain the knowledge of them by a chain of argument and induction, or by an immediate feeling and finer internal sense…" "…I am apt to suspect, they may, the one as well as the other, be solid and satisfactory, and that *reason* and *sentiment* concur in almost all moral determinations and conclusion. The final sentence, it is probable, which pronounces characters and actions amiable or odious, praise-worthy or blamable...; that which renders morality an active principle and constitutes virtue our

happiness, and vice our misery; it is probable, I say, this final sentence depends on some internal sense of feeling, which nature has made universal in whole species. For what else can have an influence of this nature? But in order to pave the way for such a sentiment, and give a proper discernment of its object, it is often necessary, we find, that much reasoning should precede, that nice distinctions made, just conclusions drawn…"

However, Sen (2009) emphasizes the importance of reason for moral behavior and justice and notes that some type of reason, however defective, is the foundation of our prejudices and this reason must be confronted by good reason to reach appropriate agreements between parties. Normative theories of moral behavior and justice must be built on reason and reasoning.

Societal Principles and Values

Many principles and values are held in high regard in the US. Here are some examples:

"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness." (*The US Declaration of Independence*)

"In God We Trust" (on US currency notes)

"Liberty" (on US coins)

"The land of the free and home of the brave." (An American adage.)

Merriam-Webster dictionary describes a motto as "a short expression of a guiding principle." The mottos of fifty US states are grouped into ten categories in Table 1A. Table 1B (given at the end), provides alphabetical listing of state mottos in English and other languages implying influence of ideas from other countries. These mottos present many ideals and virtues. These guiding principles are easier to recite than to appropriately implement, however, since it is often difficult to find appropriate rules or criteria for decision making. Different values influence peoples' decisions so that well-meaning people may come up with conflicting choices in the same situation. It is easy to note that the nine judges on the US Supreme Court do not always reach a consensus on the cases presented to them; even the same judge may react differently to the same case in different time periods as her/his values may change over time. Thus, while these principles provide a general direction to behavior, they fall short of offering decision rules for collective choice to achieve these principles. We need frameworks and theories to organize our thoughts and knowledge and we need decision rules that would help us to make appropriate decisions that are moral, ethical, and just.

Purpose and Scope

These are the main goals of this study:

1. To present and evaluate Kohlberg's (1971, 1977 & 1984) Theory of Moral Development and Haidt's (2007 & 2012) Moral Foundations Theory.
2. To present and evaluate the main normative theories of moral behavior and justice organized into two groups as proposed by Sen (2009):
    a. Transcendental-Institutionalist/Contractarian Group:
        i. John Rawls's (1971, 1999 & 2003) Theory of Justice as Fairness, and
        ii. Robert Nozick's (1974) Theory of Entitlement as Justice; and
    b. Comparative Realization-Focused Group:
        i. Social Choice Theory (Borda 1781, Condorcet 1785, Arrow 1951 & 1963; Sen 1970, 1998 & 2009).
3. To emphasize the importance of normative theories of moral behavior and justice and their collective choice rules for collective decision making.

4. To classify all five theories in one table to reveal their similarities and differences.
5. To present arguments for selecting the Comparative Realization-focused theories and for rejecting the Transcendental-Institutionalist/Contractarian theories of moral behavior and justice.

Table 1A
STATE MOTTOS GROUPED BY PRINCIPLES/VALUES INTO TEN CATEGORIES

States	1. Freedom/Liberty/Rights		States	5. Continuity/Sustenance/Strength
AL	We Dare Defend our Rights		**ID**	Let it be Perpetual
DE	Liberty and Independence		**HI**	The life of the land is perpetuated in righteousness
IA	Our liberties we prize and our rights we will maintain		**CT**	He who is transplanted still sustains
MA	By the sword we seek peace, but peace only under liberty		**NM**	It grows as it goes
			MI	If you seek a pleasant peninsula, look about you
			MD	Manly deeds womanly words
ND*	Liberty and Union Now and Forever, One and Inseparable			**6. Labor/Business/Industry/Wealth**
NJ	Liberty and Prosperity		**OK**	Labor conquers all things
NH	Live free or die		**TN**	Agriculture and Commerce
PA*	Virtue, Liberty, and Independence		**UT**	Industry
VA	Thus Always to Tyrants		**SC**	Prepared in mind and resources /While I breathe, I hope
VT*	Freedom and Unity		**MT**	Gold and Silver
WV	Mountaineers are always free		**IN**	The Crossroads of America
OR	She Flies With Her Own Wings			
MS	By valor and arms			
WY*	Equal rights			**7. Forward/Hope/Future/Knowledge**
			AK	North to the Future
	2. Equality		**KS**	To the stars through difficulties
NE	Equality before the law		**NY**	Ever Upward
WY*	Equal rights		**RI**	Hope
			WI	Forward
	3. Unity/Friendship/Justice		**MN**	The star of the north
KY	United we stand, divided we fall		**WA**	Bye and Bye, or Hope for the Future.
TX	Friendship		**CA**	Eureka ... I have found it!
IL	State Sovereignty, National Union			
NV	All for our country			**8. Trust in God**
LA	Union, Justice, and Confidence		**AZ**	God Enriches
GA	Wisdom, Justice, and Moderation		**CO**	Nothing without the Deity
ND*	Liberty and Union Now and Forever, One and Inseparable		**FL**	In God We Trust
			OH	With God, all things are possible
VT*	Freedom and Unity		**SD**	Under God the people rule
	4. Welfare of People/People Rule			**9. Virtue**
AR	The People Rule		**NC**	To be, rather than to seem
MO	The welfare of the people shall be the supreme law		**PA***	Virtue, Liberty, and Independence
				10. Individualism/Leadership
			ME	I direct

*under more than one categories

Contributions to Literature

This study makes three main contributions to the literature:

1. A multidisciplinary perspective. Much of the literature on moral behavior and justice has developed largely in isolation in different disciplines. This study presents and evaluates descriptive and normative theories from several disciplines.
2. Introduction of Social Choice Theory to other disciplines. The Social Choice Theory is little known outside economics and political science due to its use of formal logic and mathematical reasoning. This study introduces this theory to other disciplines.
3. The superiority of the Comparative Realization-Focused Perspective. It is argued here that the Social Choice Theory is the most the important normative theory of justice and collective choice due to its comparative realization-focused framework. This study encourages future research efforts to be directed on the comparative realization-focused perspective and away from the transcendental contract-focused perspective.

Sen (2009) notes that two streams of thought emerged from the European Enlightenment: (1) "transcendental institutionalism" or Contrarianism that is focused primarily on setting up the most just institutions instead of actual behaviors and outcomes, and (2) "comparative realization-focused" framework in terms of the Social Choice Theory that is concerned primarily with a comparative framework and is focused on the realizations or consequences of actions. Sen's (2009) classification of normative approaches is used here.

Limited Interdisciplinary Perspective

Some disciplines are largely closed to outsiders and this is often the case with economics perhaps due to its extensive use of mathematics. Theories are often developed to tackle similar problems across disciplines without interfaces among these disciplines. For example, Hadit (2012), a moral psychologist, does not utilize any work by economists and philosophers Arrow or Sen. Similarly, Sen (2009) and Rawls (1971, 2003) do not mention the moral psychologists Kohlberg or Hadit. There is a need for an exchange of theoretical and empirical developments across disciplines to enrich each discipline and our overall knowledge and understanding. This study tries to fill some of this gap by presenting theories form several disciplines.

Various theories of moral behavior and justice are presented and evaluated here. First, two psychological theories of moral development and foundations of moral behavior are presented. They offer rich understanding of moral behavior and justice. Next, we present normative theories of moral behavior and justice that are organized into two groups. The normative steams of thought emerged from the Enlightenment Era in Europe during the seventeenth and eighteenth centuries and have continued to be developed into the twenty first century.

DESCRIPTIVE THEORIES OF MORAL BEHAVIOR AND JUSTICE

Kohlberg's Theory of Moral Development

Lawrence Kohlberg (1971, 1977 & 1984) was influenced by Jean Piaget (1932/1962) who developed a theory of children's development of reasoning about the physical world. Kohlberg developed his Theory of Moral Development based on his study of progression in children's reasoning about their social world. He presented moral dilemmas to children of various ages and recorded their responses to develop his theory.

There are six stages of this theory and they are grouped into three levels as follows:

Level 1: Preconventional Morality

Stage 1: Punishment- obedience. Unquestioning obedience. Children think that powerful authorities hand down rules that must be obeyed without question to avoid punishment. If a child is punished by an adult then the child's act was wrong.

Stage 2: Individualism and exchange. Relativistic outlook; pre-school children recognize that individuals have different viewpoints and each individual is free to pursue his/her own interests. Punishment is a risk of wrong decisions if caught; individuals seek "fair exchanges" in dealings. Focused primarily on individual benefits and not concerned about the community or society.

Level 2: Conventional Morality

Stage 3: Good interpersonal relationships. Concern for good motives. Most children move on to this stage during elementary school and develop a sense of family and community. They learn to display love, empathy, trust, and concern for others.

Stage 4: Law and order. Individuals in their early teens become concerned about the society and they want to maintain law and order; their behavior is similar to those at stage 1. Most people stay at this stage for most of their lives.

Level 3: Postconventional Morality

Stage 5: Social contract. People at this stage perceive a society as a social contract into which people enter to benefit all. They want people to have basic rights and democratic procedures for making laws and to improve the society. This stage becomes possible after puberty (age 16) but most people stay at stage 4.

Stage 6: Universal ethical principles. Individuals at this stage, conceive of universal principles of justice and individual rights. This is similar to Kant's (1781) and Rawls's (1971, 1999 & 2003) principles of justice for all. For impartial behavior, Rawls suggests the "veil of ignorance" to develop appropriate rules of behavior in terms of justice as fairness.

A Critique of Kohlberg's Theory of Moral Reasoning

This theory was developed by interviewing boys only and it can be criticized for neglecting aspects like caring as a moral basis that many women would utilize in their moral decision making. Further, this theory applies to the Western cultures that stress individualism over collectivism or loyalty and authority as moral values. Hadit (2012) notes that this framework defines morality as justice and denigrates authority, hierarchy, and tradition, and supports a secular, questioning, and egalitarian world view. That this theory focuses on treating individuals well, and focuses on harm and fairness; it ignores notions like loyalty, respect for authority, duty, patriotism, and tradition.

Moral Foundations Theory

Haidt and Grahm (2007) present five dimensions of morality; later Haidt (2012) adds a sixth dimension of morality as described below. Haidt (2012) presents three principles of moral psychology and factors that explain how American liberals, libertarians, and conservatives make social/public decisions. These three principles of morality are:

1. Intuition comes first, strategic reasoning second.
2. There is more to morality than harm and fairness.
3. Morality binds and blinds.

First principle: Intuition comes first, strategic reasoning second. This principle is derived from David Hume (1777) who emphasized the important role of intuition over reason. Haidt

(2012) suggests that reason is like a small rider on a large intuition of an elephant. We react first and rationalize second.

Second principle: There is more to morality than harm and fairness. In his Moral Foundations Theory, Haidt (2012) claims that our minds contain at least six psychological systems that constitute all of the world's various moral matrices that can be used to construct moral communities. These six psychological systems or moral foundations are:

1. Care/harm. Support social justice through compassion for the poor.
2. Liberty/oppression. Support social justice through struggle for political equality among the subgroups in a society. People notice and resent attempts to dominate. It supports egalitarianism and antiauthoritarianism of the Left, and also the don't-tread-on-me and give-me-liberty antigovernment anger of libertarians/conservatives who are more parochial and concerned about their groups instead of all humanity.
3. Fairness/cheating. That "everyone is pulling their own weight" and "employees who work the hardest should be paid more," that the "cheaters punished and good citizens are rewarded in proportion to their deeds."
4. Loyalty/betrayal.
5. Authority/subversion.
6. Sanctity/degradation.

Based on his survey research, Haidt (2012) suggests that:

1. In the liberal moral matrix, the most sacred value is to care for victims of oppression. The three most important moral foundations are given as follows in the order of their importance to the individual: Care/harm > Liberty/oppression > Fairness/cheating.
2. In the libertarian moral matrix, the most sacred value is individual liberty. The two most important moral foundations are ordered as follows: Liberty/oppression > Fairness/cheating.
3. In the social conservative moral matrix, the most sacred value is to preserve the institutions and traditions that sustain a moral community. In this case, all six moral foundations play an important part in the formation of a moral matrix.

Third principal: Morality binds and blinds. People attach to groups and adapt their value systems. People are selfish and groupish. Thus, good and moral people may be divided into different hostile groups that do not work well together. Haidt (2012) refers to a hive switch that can be turned on to make a person sacrifice oneself for the benefit of the group.

Haidt's (2012) Moral Foundations Theory offers good insights into moral foundations of people's beliefs and behavior. Table 5 (at the end) provides a questionnaire that can be used to measure the various dimensions of the Moral Foundations Theory and to classify people into appropriate groups.

A Critique of Moral Foundations Theory

While this theory provides an excellent explanation of why people behave the way they do it does not provide collective choice rules that a group or society could use to compare various alternatives to choose the best alternative based on the group members' preferences.

Table 2 compares both psychological theories of moral development and moral foundations.

Next, we turn to normative theories and frameworks for collective choice rules for moral behavior and "just" decision making for the society

Table 2 A COMPARISON OF TWO THEORIES IN MORAL PSYCHOLOGY		
Theory or Framework	**Kohlberg's (1971) Theory of Moral Development, Turiel (1983)**	**Haidt's (2007 & 2012) Moral Foundations Theory**
Main proponents	Lawrence Kohlberg (1971)	David Hume (1777), Jonathan Haidt, (2007 & 2012) Jesse Grahm (2007), etc.
Proponents' disciplines	Psychologists	Psychologists
Domain	Western Individualistic Societies	Global
Focus	Moral development	Moral foundations
Approach	Egalitarian, anti-authority.	Emotional elephant and rational rider; emotional response first, rational response second.
Main theories and rules	Unidimensional morality focused on help - harm.	People respond emotionally first and rationalize later. Multidimensional morality with six foundations of morality. Groups may sacrifice individual rights to enhance the group's/society's welfare.
Perspective	Descriptive	Descriptive
Problems	Universal rules at stage 6 that very few people attain. Focus on boys/men. Unidimensional morality.	No collective choice rules offered for comparing various alternatives to select the best for the society.

NORMATIVE THEORIES OF MORAL BEHAVIOR AND JUSTICE

Deontological imperative. Deontological ethics are based on objective rules of behavior; that actions are intrinsically right or wrong without regards to outcomes. Kant (1781) defines a good action as one that is motivated by a moral duty.

Teleological ethics. Here the focus is on the consequences of actions to determine what is right or wrong. Jeremy Bentham (1781) and John Stewart Mill (1863) developed utilitarianism which is a consequential philosophy where the end justifies the means; morality is determined by the impact of the actions and not necessarily by the actions themselves. Bentham determined the greatest good in any situation to determine its morality so if sum total of positive outcomes outweighs the negative outcomes then it is morally right, else it is morally wrong. Mill sought "the greatest good for the greatest number of people."

The field of normative ethics can be described by two Sanskrit words for justice (Sen, 2009, 2011) - "*niti*" and "*nyaya.*" *Niti* is concerned with setting up ideal rules and institutions for perfect justice while *nyaya* is concerned with their realizations. These two concepts summarize the general approach of the two main normative streams of thought or frameworks of justice (Sen 2009, 2011) that emerged from the European Enlightenment and are presented next.

Transcendental Institutionalism: Universalization and Interpersonal Comparisons

The Golden Rule.

Kant's (1781) deontological imperative is also the Golden Rule that exists across many cultures and national borders (The Universality of the Golden Rule in the World Religions 2013, Maxwell 2003, Sen 1970):

> "Therefore, whatever you want men to do to you, do also to them, for this is the Law and the Prophets." (Matthew 7:12, NKJV)
>
> "Act as if the maxim of your action were to secure through your will a universal law of nature." (Kant, 1781)
>
> "Act so that you treat humanity, whether in your own person or that of another, always as an end and never as a means only." (Kant, 1781)

Arrow (1951 & 1963) notes that a symmetric relationship is required for interpersonal comparisons and he gives an example of "extended sympathy" to support his point:

> Here lies Martin Englebrodde,Ha'e mercy on my soul, Lord God,
> As I would do were I Lord God,
> And Thou wert Martin Englebrodde.

Sen (1970) points out difficulties with universalizability, whether interpreted as a logical necessity or a normative rule, regarding its scope. "*Can* two situations really be exactly alike? If not, the universalizability is empty of content." Further, "Do interpersonal permutations, everything else unchanged, preserve "similarity"?" Sen argues that "… questions might be asked about a case when an individual cannot honestly say that he will hold on to exactly the same judgments under every conceivable interpersonal permutation."

Compared with universal rules, somewhat less demanding rules like justice as fairness and lexicographical maximin justice are presented next.

Transcendental Institutionalism: Rawls's "Justice as Fairness" in Social Liberalism

Rawls (2003) notes that there is a conflict between the claims of liberty and the claims of equality. He goes on to "… focus on … the different philosophical and moral doctrines that deal with how the competing claims of liberty and equality are to be understood, how they are to be ordered and weighed against each other, and how any particular way of ordering them is to be justified." For this purpose, Rawls (2003) conceives of these fundamental ideas to formulate his conception of justice as fairness: the idea of society as a fair system of social cooperation over time from one generation to the next; the citizens are free and equal persons; and the idea of a well-ordered society that is effectively regulated by a public conception of justice.

Rawls (1971, 1999, and 2003) presents two principles of justice that would be used by people in a primordial "original position" to reach binding agreements. The original position describes a reflective equilibrium behind the "veil of ignorance" where people do not know about their actual position in the real world. Rawls's has modified his two principles of justice (the liberty principle and the difference principle also called lexicographical maximin) over time and here we present their last version (2003):

1. Each person has the same indefeasible claim to a fully adequate scheme of equal basic liberties, which scheme is compatible with the same scheme of liberties for all; and
2. Social and economic inequalities are to satisfy two conditions: first, they are to be attached to offices and positions open to all under conditions of fair equality of opportunity; and second, they are to be to the greatest benefit of the least-advantaged members of society (the difference principle).

Rawls (2003) develops an index of primary goods "by asking what things … are required by citizens to maintain their status as free and equal and to be normal, fully cooperating members of society." Although, the maximin principle can be used to order social states, Rawls's main focus is on the type of institutions that should be chosen for maximum justice. Thus, he is searching for the most just social state by focusing on the right institutions for this purpose.

Rawls (2003) identifies these limitations of his theory of justice:

1. His theory applies to political (or domestic) justice, not to local or international justice.
2. His theory is concerned with the nature and content of justice for a well-ordered, ideal, or strict compliance society.
3. His theory does not consider just relations between peoples.
4. "Justice as fairness is a political conception of justice for the special case of the basic structure of a modern democratic society."

Additional limitations of Rawls's theory are given below:

1. The use of difference principle (or lexicographical maximin principle) requires ordinal interpersonal comparisons among individuals.
2. Rawls's egalitarian society might stifle creativity and motivation to excel.
3. Rawls restricts his focus to one country at a time so his theory is domestic or parochial. It would require a world government to set up ideal institutions before any concept of justice could be implemented across the world.
4. Maximizing the welfare of the least advantaged person may actually sacrifice the well-being of other people who are somewhat better off.
5. Rawls assumes that a unique agreement would always emerge from the "initial fair state."
6. It is naïve to assume that people will be able to forget their differences and would always reach an agreement in an "initial fair state."
7. It is naïve to assume that people will always behave as they are expected to behave.
8. The transcendental, superlative social state may not exist, and even if it does, it may not be possible to transcend to it from an existing social state (Sen 2009).

Transcendental Institutionalism: Nozick's Libertarian "Entitlement Theory of Justice"

Nozick (1974) in his Entitlement Theory of Justice uses a libertarian perspective to question the role of state or some other mechanism for redistribution of property in the name of justice. He calls for a "minimum state" in the role of a "night-watchman" devoted to protecting people against crime: "…the state may not use its coercive apparatus for the purpose of getting some citizens to aid others." His main contribution is the idea that privacy and property of an individual should not be overridden by social obligations of justice. Nozick focuses on rights instead of individual satisfactions, and ignores public goods and externalities. He criticizes Rawls's difference principle (lexicographical maximin principle) and rejects the notion that the less advantaged people are automatically entitled to a share of the earnings of their more successful peers.

Arrow (1978) notes that Nozick's theory rests on weak arguments and three examples. That Nozick's main argument, not explicitly stated, relies on Sen's Liberal Paradox (1970) to reinforce an individual's right to make private choices. Nozick emphasizes individuals' freedom to transfer goods and to enter into mutually agreeable contracts. Individuals' holdings of goods are justified to the extent that they are derived through just acquisitions or voluntary transfers. He claims that the social safety nets and other social programs are unjust since they are funded through involuntary taxation. Arrow (1978) notes: "Racial discrimination is very frequently the result of individual free actions, just decisions on part of the members of the majority in Nozick's theory." Like Rawls's, Nozick emphasizes justice and accepts Rawls's first principle of liberty but rejects his second principle (difference principle or lexicographical maximin principle).

Nozick compares income taxation to forced labor, and rejects the need for a guarantee of some baseline level of social security and educational benefits to all citizens. Such a system would be prone to revolt by the displaced people in such a society.

A Critique of Transcendental Institutionalism.

Sen (2009, 2011) discusses several limitations of Transcendental Institutionalism that are summarized below. For a proper understanding of these limitations, consider a constrained optimization problem where a society must choose among alternative social states subject to several constraints. Here an algorithm must compare alternative feasible social states to optimize the society's objective function subject to its constraints. This is a comparative approach among various feasible social states.

Non-existence. A superlative social state may not exist if the society does not reach an agreement in the "initial position."

Infeasibility. A methodology that requires transcending to the superlative state/solution would fail if the superlative state/solution lies outside of the feasible region, no matter how desirable it is.

Redundancy. A comparative methodology can select the optimal feasible solution, if one exists, so there is no need to specify the superlative social state even if it is in the feasible region.

Neglect of Actual Behavior. A focus on institutions neglects actual behaviors of people who may not behave as assumed by the contract arrived through "the veil of ignorance" of their state in the society. Both Rawls (1971, 1999 & 2003) and Nozick (1974) offer transcendental institutionalist perspectives that ignore the actual realization of justice.

Parochial focus. A Contractarian/Transcendental Institutionalist focus is limited to getting the institutions right and it is limited to a local or domestic region and it ignore global view. In contrast, Adam Smith (1759) called for an impartial spectator who could be from anywhere in the world.

Thus, to solve the real world problems, we need a comparative realization-focused framework that compares various feasible social states and considers peoples' actual behaviors to enhance justice or to reduce injustice.

Realization-Focused Comparative Framework: Social Choice Theory and Collective Choice Criteria

This framework started from the works of Borda (1781) and Condorcet (1785) and reached maturity in the 1950s through 1970s due to the works of Kenneth Arrow (1951, 1963), Amartya Sen (1970, 2009) and others under Social Choice Theory that involves numerous theorems and collective choice rules. Three collective choice rules (the Pareto Criterion, the Suppes and Sen General Grading Principle of Choice, and the Method of Majority Decision) and one paradox (showing conflict between liberty and the Pareto Criterion) are presented below.

The Pareto Criterion.

In the context of social welfare, Sen (1970) describes these conditions:

1. Indifference. If everyone in the society is indifferent between two alternative social situations *x* and *y*, then the society should be indifferent too; and
2. Preference. If at least one individual strictly prefers *x* to *y*, and every individual regards *x* to be at least as good as *y*, then the society should prefer *x* to *y*.

In situation (a) above, the society is Pareto-wise indifferent between *x* and *y*, in situation (b), *x* is Pareto-wise better than *y*.

Pareto-optimality states that in a choice situation, *x* is Pareto-optimal if we cannot choose another alternative that everyone would regard as at least as good as *x* while at least one person will regard it to be strictly better than *x*. The Pareto Criterion is very useful and it is widely used in economics and other fields. However, it should be noted that a particular situation may be very unjust and still Pareto optimal; this criterion gives each individual a veto power to block any change from the status quo.

The Suppes-Sen Grading Principle of Choice.

Sen (1970) extends Suppes's grading principles (1966) to *n*-person societies and obtains results that take us beyond maximin and utilitarianism. Sen notes that an extremely important property of the extended grading principle makes it a building block of both maximin and utilitarianism. He notes "If *x* is more just than *y* in the sense of Suppe (with the identity axiom imposed), then *x* must have a larger welfare aggregate than *y* (utilitarian relation) and also the worst-off individual at *x* must be at least as well off as any individual at *y* (maximin relation)…." Sen notes that the conflicting claims of maximin and utilitarianism are difficult to resolve but an application of extend Suppes's grading principle seems to catch the most appealing aspects of both and extends beyond the Pareto criterion.

The Method of Majority Decision.

This method has been studied and applied as early as 1770 by Borda (1781) and by 1785 by Condorcet. While this method has many appealing properties like satisfying the Pareto criterion, it has limitations like cyclical majority (or majority cycles) so it becomes intransitive as a collective choice rule. This particular problem is called "the paradox of voting" and it can arise when there are more than two alternatives to choose from.

The Liberal Paradox.

It was noted earlier that liberty and freedom, along with other principles, are very highly valued in the US and in many other countries. Sen (1970) shows that liberal values, even minimal liberal values, contradict with the Pareto Criterion in the presence of nosey preferences where the preferences of one person are influenced by the preferences of another person. Liberal values require that there are choices where an individual is free to choose her preferences on at least on distinct pair of alternatives based on her likes or dislikes. However, this individual decisiveness over some alternatives contradicts the Pareto Criterion. This result is proved in a theorem by Sen (1970) titled "The Impossibility of a Paretian Liberal."

Table 2 summarizes the main points of the Transcendental Institutionalist Framework and Realization-based Comparative Framework.

Table 3
A COMPARISON OF TWO NORMATIVE FRAMEWORKS OF JUSTICE

Theory or Framework	Transcendental Institutionalist/ Contractarian Framework	Realization-Focused Comparative Framework. Utilitarianism, Welfare Economics, Social Choice Theory.
Main proponents	Thomas Hobbes (1652), Jean-Jacques Rousseau (1762), John Locke (1689), Immanuel Kant (1781), John Rawls (1971, 1999, 2003), Robert Nozick (1974), etc.	Adam Smith (1759), Marquis de Condorcet (1785), Jeremy Bentham (1781), Mary Wollstonecraft (1792), Karl Marx (1843, 1875), John Stuart Mill (1848), Kenneth Arrow (1951, 1973a, 1973b, 1974, 1978), Duncan Black (1958, 1986), Amartya Sen (1970, 1998, 2009, 2011), Harsanyi (1977), etc.
Proponents' disciplines	Political philosophers	Political philosophers, mathematicians, economists
Domain	Parochial, domestic	Global
Focus	Identify just institutional arrangements. Seeks perfect justice. Contracts.	Realization-focused comparisons. Removal of manifest injustice; enhancement of injustice.
Approach	Deontological. Get the institutions right but not focused on the actual societies that would emerge. Identify perfectly just arrangements. Presumes compliance with ideal behavior.	Evaluative comparisons over distinct social realizations. Concentrates on actual behavior of people.
Main theories and rules	Immanuel Kant and John Rawls also present requirements of behavioral norms. Kant – golden rule. Rawls – "justice as fairness," maximin. Maximize the benefit of the least advantageous person. Liberty most important right/value. Least advantaged person must get the most benefit.	Social Choice Theory. Group decision should be based on individual preferences. Numerous collective choice rules. Numerous theorems: Arrow's General Impossibility Theorem. Sen's Impossibility of a Paretian Liberal Theorem.
Perspective	Normative	Normative
Problems	Redundancy: Neither necessary nor sufficient to compare feasible choices that do not include the ideal alternatives. Infeasibility. Non-existence if no agreement. Parochial and biased. Neglects actual behaviors.	Paradoxes, incompleteness.

OVERALL CLASSIFICATION OF THEORIES

In the field of justice and moral behavior, there appears to be little exchange of theoretical concepts across disciplines like economics/political science, psychology, and philosophy. Table 4 shows how theories from these disciplines could be grouped into similar categories to possibly enrich one another.

Table 4
A CLASSIFICATION OF THEORIES OF MORAL BEHAVIOR AND JUSTICE

	Focus on ideal rules and institutions (*niti*)	Focus on realizations and consequences (*nyaya*)
Descriptive	Kohlberg – Theory of Moral Development (Stages 5 & 6)	Kohlberg's Theory of Moral Development (Stage 2) Hadit's Moral Foundations Theory
Normative	Rawls – Justice as Fairness Nozick - Libertarian perspective	Social Choice Theory
Aggregation Rules for Collective Choice	Kant's categorical imperative Rawls (Lexicographical maximin with priority to equal liberty for all) Nozick (minimum government)	Social Choice Theory • Several theorems • Numerous collective choice rules – Pareto Criterion, Condorcet Criterion, Method of Majority Voting, etc.)

DISCUSSION

We have presented and discussed here descriptive and normative theories of justice and moral behavior and numerous choice rules for moral and just behavior. The descriptive theories – the Theory of Moral Development and the Moral Foundations Theory - shed light on the underlying values and factors that influence peoples' decisions. However, they are limited in offering any normative rules or guidelines in selecting the "best" alternative for a society.

The normative theories go a long way in offering reasoned choice criteria for selecting the "best" alternative for the society. The normative theories are classified into two groups of thought – the Transcendental Institutionalist Group and the Realization-Focused Comparative Group. While the transcendental institutionalist framework offers insights into morality and justice, it largely turns into a wild goose chase in search for justice since the superlative or transcendental alternative may suffer from these defects: infeasibility, non-existence, redundancy (neither necessary nor sufficient), parochialism, and a lack of a focus on actual behaviors of people who may not behave as expected. By contrast, a comparative Realization-Focused Framework offered by the Social Choice Theory has internal consistency and practical reach and it provides numerous collective choice rules and theorems for collective decision making to select the best alternative among the feasible alternatives. In the real world, people are more concerned in enhancing justice and/or removing manifest injustice through some collective decision making and this is the domain of Social Choice Theory. When people are moved by injustice, they typically do not clamor for the most just society that is the domain of the Transcendental Institutionalist Framework. When people across the globe seek removal of injustice or enhancement of justice, the Transcendental Institutionalist Frameworks remain silent or offer "minimal justice."

Unlike the Transcendental Institutional Framework, Hume was very much focused on the real world and real people. Writing "Of Justice," Hume (1777) wrote: "That public utility is the *sole* origin of justice, and that reflections on the beneficial consequences of this virtue are the *sole* foundation of its merit…" He further states "Fanatics may suppose, that dominion is founded on grace, and *that saints alone inherit the earth;* but the civil magistrate very justly puts these sublime theorists on the same footing with common robbers, and teaches them by the severest discipline, that a rule, which, in speculation, may seem the most advantageous to society, may yet be found, in practice, totally pernicious and destructive." He gives an example about a rule of equality that may on face value be considered highly useful but would be impracticable. "Render possessions ever so equal, men's different degrees of art, care, and industry will immediately break that equality. Or if you check these virtues, you reduce society to the most extreme indigence; and instead of preventing want and beggary in a few, render it unavoidable to the whole community." He goes on to state that "The laws have, or ought to have a constant reference to the constitution of government, the manners, the climate, the religion, the commerce, the situation of each society."

Clearly, Hume was very much concerned with results and practical significance of rules and was not interested in solely setting up ideal institutions for moral or just behavior without regard to the behavior of actual people who inhabit this earth. Rawls assumes that people will automatically behave according to his two principles of justice. In Rawls's world, for example, all drivers would follow traffic rules so we may not need cops to enforce traffic rules. The real world as we know is quite different as Hume observes above. Similarly Kant's categorical imperative framework is not practical for most people except for saints. If we intend to remove manifest injustice or to enhance justice as a practical matter, then we must utilize a realization-focused comparative framework for decision making along the direction of Social Choice Theory and its various decision rules.

CONCLUSION

Societies are strengthened by the moral behavior of their members. For hundreds of years, scholars have attempted to identify the principles of moral behavior, of justice, and of ethics. It has been acknowledged here that instincts, passions, reason, and reasoning play an important role in recognizing and modeling moral behavior. Although, scholars have argued about the relative importance of passion and reason in moral behavior, it must be acknowledged that we use reason to evaluate any behavior and also that we have to use reason in order to disagree with the principles of someone else.

Societies hold many principles and values in high regard. In the US, the principles and values like liberty, freedom, equality, unity, justice, welfare of people, etc. are held in high regard. However, it must be conceded that some of these principles are in direct conflict with one another. For example, liberty and freedom may conflict with unity. Equality may conflict with freedom and liberty. Sen shows, through his Liberal Paradox, that, in the presence of externalities like nosey preferences, even minimal liberty conflicts with the very desirable Pareto Criterion. Sen recommends that the Pareto Criterion must be sacrificed to achieve minimal liberty of choice for people in their daily lives.

Scholars have developed both descriptive and normative theories of moral and ethical behavior in different disciplines. The descriptive theories in moral psychology are helpful in identifying the underlying values of people and thus help shed light on their choices and behaviors. However, ultimately we need normative theories to provide us collective choice rules for selecting "just" alternatives for the benefit of the society or a group. We discussed the

Superlative/Transcendental Institutionalist Framework of Kant, Rawls, and Nozick as well as the Comparative Realization-Focused Framework that includes the social choice theory.

Table1B
STATE MOTTOS OF 50 US STATES

AL	We Dare Defend our Rights (*Audemus jura nostra defendere*)	**MT**	Gold and Silver (*Oro y plata*)
AK	North to the Future	**NE**	Equality before the law
AZ	God Enriches (*Ditat Deus*)	**NV**	All for our country
AR	The People Rule (*Regnat populus*)	**NH**	Live free or die
CA	Eureka ... I have found it!	**NJ**	Liberty and Prosperity
CO	Nothing without the Deity (*Nil sine Numine*)	**NM**	It grows as it goes (*Crescit eundo*)
CT	He who is transplanted still sustains (*Qui transtulit sustinet*)	**NY**	Ever Upward *(Excelsior)*
DE	Liberty and Independence	**NC**	To be, rather than to seem (*Esse quam videri*)
FL	In God We Trust	**ND**	Liberty and Union Now and Forever, One and Inseparable
GA	Wisdom, Justice, and Moderation	**OH**	With God, all things are possible
HI	*Ua mau ke ea o ka aina I ka pono* (The life of the land is perpetuated in righteousness)	**OK**	Labor conquers all things (*Labor omnia vincit)*
ID	Let it be Perpetual (*Esto perpetua*)	**OR**	She Flies With Her Own Wings (*Alis Volat Propiis*)
IL	State Sovereignty, National Union	**PA**	Virtue, Liberty, and Independence
IN	The Crossroads of America	**RI**	Hope
IA	Our liberties we prize and our rights we will maintain	**SC**	Prepared in mind and resources / While I breathe, I hope
KS	To the stars through difficulties (*Ad astra per aspera*)	**SD**	Under God the people rule
KY	United we stand, divided we fall	**TN**	Agriculture and Commerce
LA	Union, Justice, and Confidence	**TX**	Friendship
ME	I direct (*Dirigo*)	**UT**	Industry
MD	Manly deeds womanly words (*Fatti maschil parole femine*)	**VT**	Freedom and Unity
MA	By the sword we seek peace, but peace only under liberty (*Ense petit placidam sub libertate quietem*)	**VA**	Thus Always to Tyrants (*Sic Semper Tyrannis*)
MI	If you seek a pleasant peninsula, look about you (*Si quaeris peninsulam amoenam, circumspice*)	**WA**	Bye and Bye (*Alki*)
MN	The star of the north (*L'Etoile du nor*)	**WV**	Mountaineers are always free (*Montani semper liberi*)
MS	By valor and arms (*Virtute et armis*)	**WI**	Forward
MO	The welfare of the people shall be the supreme law (*Salus populi suprema lex esto*)	**WY**	Equal rights

Source: http://www.statesymbolsusa.org/Lists/state_mottos.html.

The various theories of moral behavior and justice have largely independently developed in different disciplines and have not benefited through sharing of ideas across disciplines. This study presents and discusses theories from several disciplines and classifies them in one table to demonstrate their similarities and differences with the expectation of facilitating enriched understating of moral behavior and justice across disciplines.

Table 5
MORAL FOUNDATIONS QUESTIONNAIRE

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong), [1] = not very relevant, [2] = slightly relevant, [3] = somewhat relevant, [4] = very relevant, [5] = extremely relevant (This is one of the most important factors when I judge right and wrong)

______Whether or not someone suffered emotionally
______Whether or not some people were treated differently than others
______Whether or not someone's action showed love for his or her country
______Whether or not someone showed a lack of respect for authority
______Whether or not someone violated standards of purity and decency
______Whether or not someone was good at math
______Whether or not someone cared for someone weak or vulnerable
______Whether or not someone acted unfairly
______Whether or not someone did something to betray his or her group
______Whether or not someone conformed to the traditions of society
______Whether or not someone did something disgusting

Part 2. Please read the following sentences and indicate your agreement or disagreement:

[0] Strongly disagree	[1] Moderately disagree	[2] Slightly disagree
[3] Slightly agree	[4] Moderately agree	[5] Strongly agree

______Compassion for those who are suffering is the most crucial virtue.
______When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.
______I am proud of my country's history.
______Respect for authority is something all children need to learn.
______People should not do things that are disgusting, even if no one is harmed.
______It is better to do good than to do bad.
______One of the worst things a person could do is hurt a defenseless animal.
______Justice is the most important requirement for a society.
______People should be loyal to their family members, even when they have done something wrong.
______Men and women each have different roles to play in society.
______I would call some acts wrong on the grounds that they are unnatural.

This study has argued that the Transcendental Institutionalist Framework is tantamount to a wild goose chase that distracts attention from the practical problems that face societies across the world. Any serious discussion of a just approach to finding practical solutions to existing problems; solutions that would reduce or eliminate manifest injustice or that would enhance justice would clearly call for a Comparative Realization-Focused Framework. Such a framework has been available since the eighteenth century France with the works of Borda, Condorcet, and others who developed formal methods of voting and collective decision making and this approach reached maturity in the last few decades thanks to the contribution of Kenneth Arrow, Amertya Sen, Duncan Black, and others. This framework is very general and it is based on an axiomatic approach of mathematical theorems; it has internal consistency, practical relevance, and universal reach; its collective choice rules help us select the best alternative based on the preferences of its group members.

The Social Choice Theory has largely been confined to economics and political science even though it offers rich insights, theorems, and collective choice rules. This study introduces the Social Choice Theory to other disciplines to enhance their understanding of moral behavior and justice and to enable them to seek practical solutions to pressing social problems across the world.

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EXECUTIVE COMPENSATION AT BANKS RECEIVING FEDERAL ASSISTANCE UNDER THE TROUBLED ASSET RELIEF PROGRAM (TARP)

Clayton M. Winkelvoss, Elon University
Anthony J. Amoruso, Elon University
Jonathan Duchac, Wake Forest University

ABSTRACT

The recent recession in the US economy was triggered by a severe financial crisis that threatened a collapse of the American banking system. The banking industry has subsequently faced intense political and regulatory scrutiny, with one of the primary targets being executive compensation. As a result, limits were placed on executive pay at banking institutions bailed out by the federal government under the 2008 Troubled Asset Relief Program (TARP). This paper reviews the contractual issues affecting the compensation of bank executives and analyzes the compensation policies of the largest banks receiving government bailout money under TARP. We report that CEO pay, particularly incentive compensation in the form of bonuses and stock-based compensation, decreased markedly following the bailout. Thus, it appears that compensation was reduced at most TARP recipient banks following the government bailout of the banking industry.

INTRODUCTION

The recent recession in the American economy represents the largest economic downturn since the Great Depression. While many factors contributed to the slump, the financial services industry faced some of the most serious criticism due to the subprime mortgage crisis, the collapse of the housing market, and the stagnation of global credit markets. In order to stem the crisis and restore credit markets, the US Congress approved a $700 billion bailout package in late 2008 to stabilize the financial sector (Herszenhorn, 2008). A significant feature of this plan was the Troubled Assets Relief Program (TARP), which was designed to buy troubled assets from financial institutions that had been weakened by the subprime mortgage crisis. Purchasing these assets allowed banks to stabilize their balance sheets and avoid further losses (Congressional Budget Office, 2009). However, taxpayers were outraged when they discovered the levels of compensation received by executives of these struggling financial institutions. In March 2009, for example, executives from insurer AIG received a combined $165 million in compensation after AIG had received a substantial infusion of TARP funding to avoid bankruptcy. This situation triggered heightened public scrutiny of the legitimacy of rewarding financial executives considered to be responsible for policies that led their firms into financial difficulty (Reddy & Bendavid, 2009).

This study examines the compensation policies of banks receiving the largest levels of TARP funding in order to gain insight into the effects of the financial crisis and increased public scrutiny on levels of executive pay. We focus on the three-year period around the financial crisis of 2008 in order to evaluate changes in the compensation policies of TARP recipients. While non-banking institutions also ultimately participated in the TARP program (e.g., AIG and certain US automobile companies), we focus only on banks in order to retain industry homogeneity in our sample. Our results indicate that most banks decreased CEO pay throughout the three years of the study, particularly incentive compensation such as bonuses and stock options. However, we find that the decrease in pay was greater following the heightened public scrutiny that followed the disclosure of sizable AIG compensation in early 2009 and the modification of TARP to establish limits on executive pay for recipients of bailout funds.

LITERATURE REVIEW

Agency Costs and Compensation

The contractual motivations for the elements of executive compensation are commonly traced to Jensen and Meckling's (1976) seminal work on agency theory, which presumes a conflict of interests between the goals of principals and the goals of agents who work on their behalf. Their theory holds that, in order to minimize agency costs, contracts should provide incentives for managers (agents) to subordinate their personal interests in order to serve the interests of their principals. The goal of contracting is to structure the contractual relationship so that an agent will make choices that maximize the principal's welfare.

Agency costs are ultimately the result of a separation of ownership and control between the managers who operate the firm and the shareholders and creditors who effectively own the firm. Fama and Jensen (1983) show that organizations where such a separation exists are able to function because of effective contract structures where the monitoring and implementation of decisions are separated.

In order to mitigate the agency costs discussed by Jensen and Meckling and bridge the gap between ownership and control, owners of firms provide incentive-based compensation packages to managers. Iacobucci (1998) reaffirmed the agency costs that result from the separation of ownership and control. Because managers may only have a minor interest in the firm's profits, it is possible that they will manage in their own interests rather than in the best interests of the firm. Restated, minimal managerial ownership may result in the manager failing to bear the full costs of his or her detrimental behavior to the firm.

One problem with agency costs, as identified by Iacobucci (1998), is the possibility of inefficient investments by the managers of firms. Suppose, for example, that risk-averse managers want to do all they can to retain their jobs. Without incentives to guide them otherwise, these managers would be tempted to make safe, less-profitable investments rather than risky, profit-maximizing investments. According to portfolio theory, the optimal portfolio for any investor would involve diversification across the different securities of multiple firms. Because managers cannot diversify their compensation risk across many firms, they must be compensated in some way for this excess risk in one company (Fama, 1980). Ultimately, the investment risk choices of a company, as controlled by the managers of a firm, are a result of the compensation packages in place (John, Saunders, and Senbet, 1994).

To deter managers from shying away from risky but potentially profitable investments, two primary methods of incentive compensation exist: bonuses and stock-based compensation. Bonuses offered to executives are commonly based on annual profits, therefore they provide managers with an immediate pay-out associated with short-term benefits to the firm. Alternatively, stock-based compensation ties executive compensation to longer-term changes in shareholder wealth associated with movements in a firm's stock price. Whereas risk-averse managers might be unwilling to make profitable, but risky, investments if compensation consists primarily of guaranteed salary, bonus compensation provides an opportunity for managers to share in the potential profits generated by riskier investments. Similarly, stock-based compensation encourages managers to make higher-risk investments in order to share in potentially greater increases in future stock prices.

Growth in Executive Compensation

While stock-based awards are theoretically intended to give managers incentives that align their interests with shareholders (Hall & Liebman, 1998), stock compensation is also viewed as part of a competitive compensation package (including salary and bonuses) that serves as a means of attracting and retaining corporate talent (Westphal & Zajac, 1994). As the market for top executives has grown more competitive, firms have been forced to ratchet up the value of their packages. Executive compensation is often set in response to benchmarking surveys across industries, with compensation below the 50th percentile being labeled "below market" (Jensen & Murphy, 1990).

Apart from outlining the methods used to compensate executives, Iacobucci (1998) also discusses the effects of disclosing compensation information. He noted that two elements, specifically, attract public outrage: how executives are paid and how much executives are paid. Both of these elements are affected by disclosure. Some analysts argue that disclosure results in lower pay than would normally be offered due to political pressures and the public outrage that would result. Although it may prove profit maximizing, undesirable political effects would result from paying managers the optimal amount with optimal incentives. Iacobucci, on the other hand, argued that disclosure would have an opposite effect, driving up executive compensation.

TARP and the Federal Bailout

The Troubled Asset Relief Program was authorized as part of a sweeping government bailout of the U.S. financial system known as the Emergency Economic Stabilization Act of 2008 (EESA). While the total bailout was breathtaking in its scope, with the Federal Reserve alone committing more than $7 trillion to prop up the financial sector, the TARP program became the most visible symbol of the government's direct intervention to save the banking system. Congress originally authorized $700 billion under the program, but that amount was subsequently reduced to $475 million by the Dodd-Frank Wall Street Reform and Consumer Protection Act. Through May 2013, roughly $419 billion had actually been disbursed, of which $351 billion had been repaid. When all is said and done, the most recent estimates of the net cost to the government from the TARP bailouts range between $21 billion, projected by the Congressional Budget Office (CBO), and $47 billion, estimated by the Office of Management and Budget (CBO, 2013).

In early 2009, the American Recovery and Reinvestment Act (ARRA) was enacted, amending the EESA and adding restrictions on executive pay for recipients of TARP funds. This modification set limits on bonus payments, established a cap on compensation for senior executives of certain TARP recipients, and instituted a "clawback" provision permitting the recovery of any incentive compensation paid to executives that was calculated from inaccurate information. Prior studies have examined the impact of TARP compensation restrictions on the willingness of companies to participate in the program and their likelihood of repaying funds (Cadman, Carter & Lynch, 2012), as well as the impact of TARP on the compensation-related disclosures and corporate governance of firms receiving exceptional assistance under the program (Bannister, Newman & Peng, 2012). Our study extends the literature by further examining changes in the compensation practices of firms participating in TARP.

METHODOLOGY AND RESULTS

Sample and Data Collection

We collected compensation data from all commercial banks that accepted TARP funds of $400 million or more. While other non-banking institutions ultimately participated in TARP, we exclude these firms in order to focus on a homogeneous industry for purposes of evaluating compensation policy. Table 1 summarizes the 32 largest banking institutions that were TARP recipients and the level of funding received. Compensation data for fiscal years 2007 through 2009 were collected from proxy statements filed with the Securities and Exchange Commission and publicly-available through the SEC's EDGAR database for the 32 banking institutions that accepted TARP funds of $400 million or more. It should be noted that three of the 10 largest recipients of TARP funds were investment bank holding companies prior to October 2008 – J.P. Morgan Chase, Goldman Sachs, and Morgan Stanley. These three institutions were allowed to change their regulatory status to bank holding companies in late September 2008. Of the 32 companies selected for this research, 29 are commercial lending banks throughout the entire period studied.

Data Analysis

Table 1 shows the largest TARP recipients and the funding they received under the program. Among the 32 companies observed in Table 1, there is a large gap between the companies that received the most TARP funds – Citigroup and Bank of America, each with $45 billion – and the companies that received the least in funding – City National Corporation and Webster Financial, each with $400 million. These disparities in funding are consistent with the extreme differences in size between the largest and smallest banks in the sample. The median funding for the 32 banks we analyze was $2.415 billion, and the mean was approximately $6.89 billion. In total, TARP funding for these 32 institutions exceeded $220 billion.

While the gap in TARP disbursements between banks is sizable, the compensation received by CEOs of these companies is also widely distributed. Table 2 shows the total CEO compensation reported by each bank for 2007-2009. From 2007 to 2008, total compensation decreased by approximately $130.7 million, or 29.1%, from $449.8 million to $319.1 million. The mean and median for total compensation in 2008 were $9.97 million and $5.7 million, respectively, down from $14.1 million (mean) and $8.4 million (median) in 2007. In 2007, Goldman Sachs awarded its CEO the largest compensation package of any company in the study, totaling just under $54 million. American Express awarded the largest compensation package among non-investment banks at $52.8 million. M&T Bank awarded the smallest compensation package at $1.15 million. In 2008, American Express issued the largest compensation package – $43.4 million – exceeding that of Goldman Sachs, which totaled $42.9 million. The smallest compensation package in 2008 was issued by Capital One and totaled $68,344.

Table 2 lists total compensation for all sample firms during the period 2007-2009, ranking in decreasing order based on the level of TARP funding received, while Table 3 reports means and medians for each of the elements of executive compensation for each year. From 2007 to 2008, average total compensation declined by 29% from $14.1 million to just below $10 million. By 2009, average total compensation had fallen to $4.4 million, a drop of more than 50% from the prior year and more than two-thirds below the levels of 2007. In each year, total compensation was significantly lower than the preceding year at the 0.01 level based on a paired two-sample t-test for means. While it is clear that total compensation was falling for the sample of TARP recipients through the period of the financial crisis, the manner in which compensation changed is reflected in the elements of executive pay. On a percentage basis, salary changed less than any other component of compensation. Annual salary increased by approximately 5% from 2007 to 2008 a change that, while economically modest, is statistically significant at the 0.05 level. Average salaries increased at a greater rate in 2009, rising from $907,403 to $1,113,235, a rise of 13%. However, while the percentage change between 2008 and 2009 was greater than in the preceding year, the difference in average salary is statistically insignificant. This is due to

Table 1
Largest Financial Services Recipients of TARP Funding
($400 Million or Greater in Funding)

COMPANY	TARP FUNDING
Citigroup	45,000,000,000
Bank of America	45,000,000,000
JP Morgan*	25,000,000,000
Wells Fargo	25,000,000,000
Goldman Sachs*	10,000,000,000
Morgan Stanley*	10,000,000,000
PNC	7,579,200,000
U.S. BanCorp	6,599,000,000
SunTrust Banks	4,850,000,000
Capital One	3,555,199,000
Regions Financial	3,500,000,000
Fifth Third	3,408,000,000
American Express	3,388,890,000
BB&T	3,133,640,000
Bank of New York Mellon	3,000,000,000
KeyCorp	2,500,000,000
CIT Group	2,330,000,000
Comerica	2,250,000,000
State Street	2,000,000,000
Marshall & Isley	1,715,000,000
Northern Trust	1,576,000,000
Zions Bancorporation	1,400,000,000
Huntington Bancshares	1,398,071,000
Discover Financial Services	1,224,558,000
Synovus Financial Services	967,870,000
Popular, Inc.	935,000,000
First Horizon National Corporation	866,540,000
M&T Bank Corporation	600,000,000
Associated Banc-Corp	525,000,000
First BanCorp Holding Company	424,174,000
City National Corporation	400,000,000
Webster Financial	400,000,000
Source: ProPublica (2013)	
*Investment bank holding company until September 2008	

the extreme variation in compensation policy among sample firms. The two largest banks in the sample, Citigroup and Bank of America, were recipients of exceptional assistance and thus subject to the compensation cap instituted by ARRA of $500,000 per year. Both of these institutions slashed CEO pay to an even lower level than required under Treasury guidelines. Bank of America, for example, went from reporting the highest annual salary among sample firms of $1.5 million in both 2007 and 2008 to completely eliminating CEO cash compensation in 2009. Many other firms in the sample, which were not subject to the ARRA cap, increased CEO pay in 2009.

Table 2
Total CEO Compensation for 2007-2009

COMPANY	2007	2008	2009
Citigroup	$ 3,164,320	$38,237,437	$ 125,001
Bank of America	23,646,455	9,857,723	0
JP Morgan	28,887,532	35,764,557	1,000,000
Wells Fargo	14,797,458	9,768,935	18,683,386
Goldman Sachs	53,966,198	42,946,801	600,000
Morgan Stanley	41,790,854	1,235,097	800,000
PNC	18,623,679	11,958,853	14,622,450
U.S. Bancorp	6,473,874	6,987,092	5,915,491
SunTrust Banks	4,610,877	8,091,887	5,705,945
Capital One	17,084,879	68,344	6,000,020
Regions Financial	19,370,602	6,807,662	7,654,129
Fifth Third	10,044,801	2,980,259	5,142,925
American Express	52,798,543	43,393,172	10,312,560
BB&T	7,339,926	6,478,689	2,738,024
Bank of New York Mellon	24,802,106	14,183,633	13,558,951
KeyCorp	9,145,674	6,727,671	5,032,214
CIT Group	11,865,079	5,383,517	803,077
Comerica	7,717,890	5,947,475	3,332,188
State Street	26,966,097	24,517,276	1,000,000
Marshall & Isley	4,295,574	3,449,755	1,312,496
Northern Trust	15,887,713	8,379,651	8,465,989
Zions Bancorporation	1,597,961	1,499,926	1,312,493
Huntington Bancshares	2,209,964	1,884,117	2,189,304
Discover Financial Services	21,796,421	2,431,000	5,627,613
Synovus Financial Corporation	1,926,255	3,057,187	928,200
Popular, Inc.	1,524,291	1,395,622	742,200
First Horizon National Corporation	3,183,109	3,323,284	4,618,269
M&T Bank Corporation	1,152,716	869,808	2,675,013
Associated Banc-Corp	2,460,741	2,776,841	2,592,514
First BanCorp Holding Company	2,912,424	2,057,905	781,046
City National Corporation	5,406,782	4,150,608	4,028,526
Webster Financial	2,336,077	2,510,559	2,163,398
Mean	$14,055,840	$ 9,972,573	$ 4,389,482
Median	$ 8,431,782	$ 5,665,496	$ 2,706,519
Source: SEC Filings			

Table 3
Mean and Median Compensation Components for 2007-2009

	2007	2008	2009
Salary			
Mean	$ 865,810	$ 907,403*	$1,113,235
Median	875,109	914,117	953,364
Bonus			
Mean	1,872,991	45,570*	271,140
Median	-0-	-0-	-0-
Stock			
Mean	11,317,039	9,019,600	3,005,107**
Median	7,451,782	4,772,996	1,753,218
Total Compensation			
Mean	14,055,840	9,972,573**	4,389,482**
Median	8,431,782	5,665,496	2,706,519
*Mean differs from prior year at 0.05 level of significance			
**Mean differs from prior year at 0.01 level of significance			

While annual salaries generally increased throughout the sample period, incentive compensation declined substantially, driving the drop in total compensation. Bonuses experienced the largest percentage change of all forms of compensation. In 2008, the initial year of the financial crisis, the average bonus plummeted by more than 97% from the prior year, a change that is statistically significant at the 0.05 level. While bonuses recovered slightly in 2009, the average amount was still more than 85% below 2007 levels and did not vary significantly from 2008 levels. Stock-based compensation also fell, but the change did not happen as quickly as the drop in bonuses. The 20% decrease in equity awards from 2007 to 2008 is not statistically significant. The next year, however, stock-based awards fell by another two-thirds, an amount that is statistically significant at the 0.01 level. In effect, the financial crisis, in conjunction with the policies associated with the Troubled Asset Relief Program, triggered a dramatic drop in the level of incentive compensation paid to bank executives.

The changing make-up of CEO compensation over this time period is illustrated in Figures 1, 2, and 3, which show the percentage breakdown of total compensation between salary, bonus, and stock-based awards. Figure 1 shows the relative proportions of CEO compensation elements prior to the financial crisis. Salary represents the smallest component, just 6% of total pay. The remaining 94% was comprised of incentive compensation, with annual bonuses provide 15%, and the remainder coming from stock compensation. Total incentive compensation fell significantly in the following year (2008) as seen in Figure 2. Bonuses shrunk to 1% of executive pay, while salaries increased to 9% of total compensation, a result of both the modest increase in 2008 salaries combined with a 29% drop in total compensation. Stock-based awards grew to 90% of compensation, driven by a reduction in overall CEO pay.

Figure 1
Compensation Elements in 2007

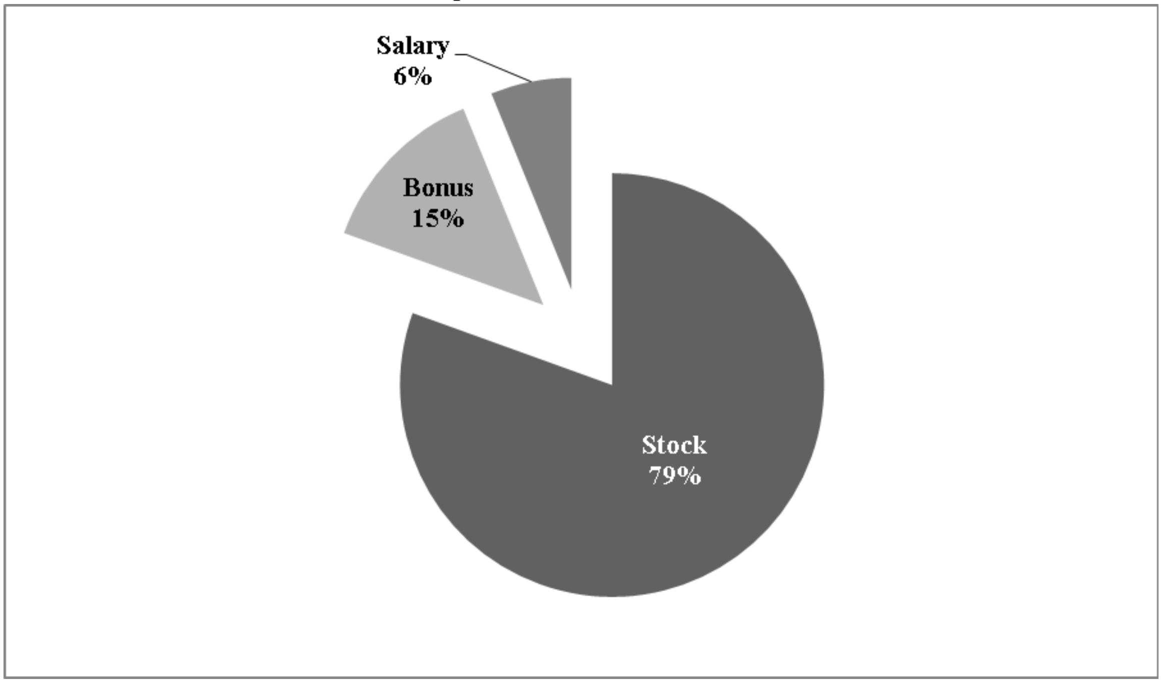

Figure 2
Compensation Elements in 2008

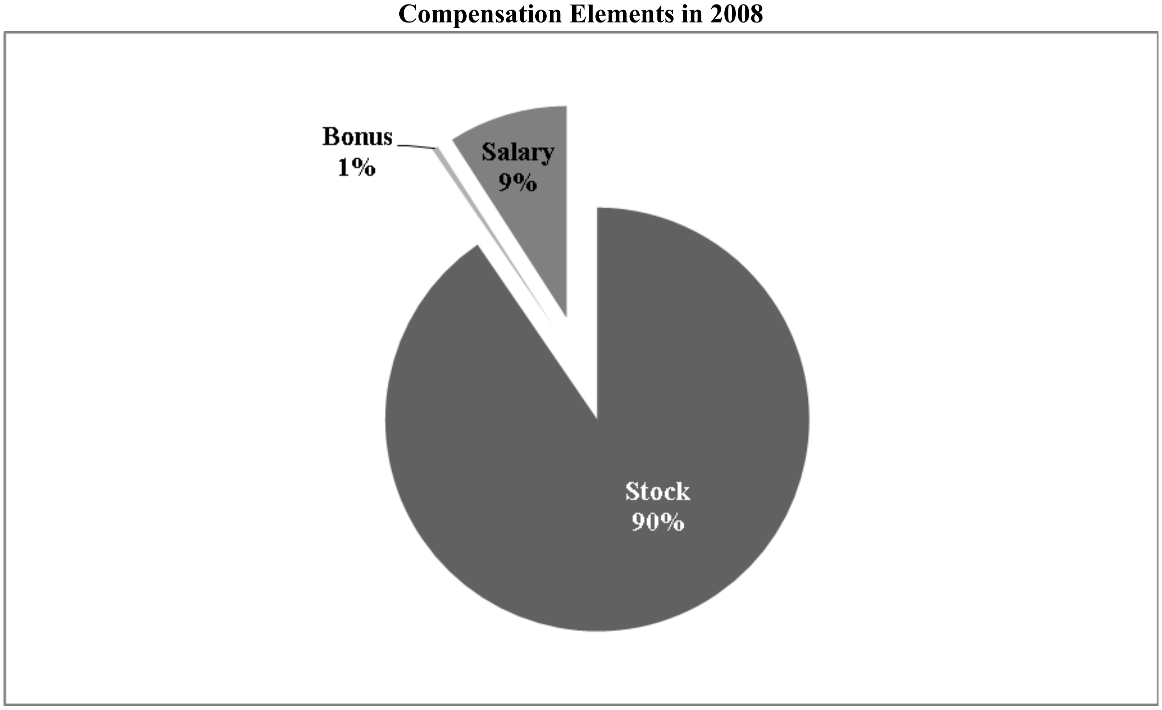

Figure 3 depicts CEO compensation in the first year following the implementation of TARP. Once again, changing proportions are affected by the shrinking total amount of executive pay packages. In 2009, salaries increased to 25% of average annual CEO pay. As a result, incentive compensation dropped to its lowest level during the period of our study, with stock-based awards comprising only 69% of the total compensation. Bonuses recovered slightly, but were still down from their high of 15% in 2007.

Figure 3
Compensation Elements in 2009

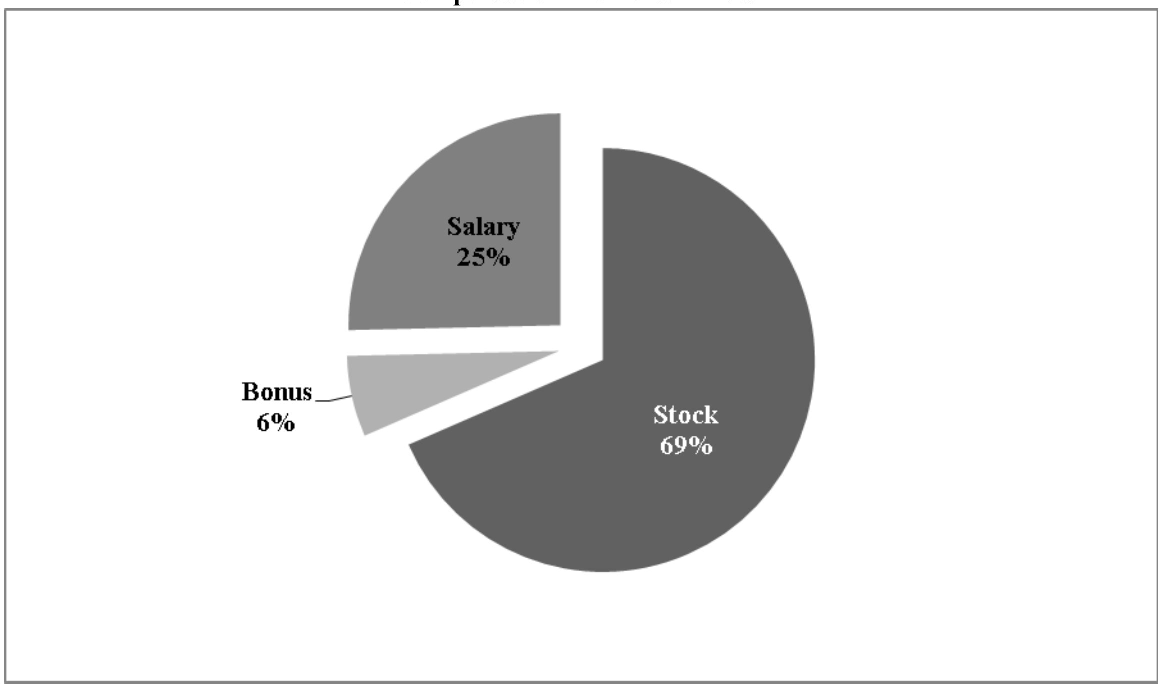

Table 4 shows the detailed breakdown of CEO pay at each of the sample firms in 2009, the first full year following the implementation of TARP, ranked in decreasing order based on the level of TARP funding received. A striking feature of the data is the elimination of bonuses for the vast majority of banks. Bonuses are awarded based on annual performance. Because 2008 and early 2009 were characterized by poor economic performance in the financial sector, declining bonuses are consistent with the contractual motivations of incentive compensation. Another notable development is the elimination of stock-based compensation at many of the largest TARP recipients. These are the firms that received the most public scrutiny during the financial crisis. Citigroup and Bank of America, both of which reported no stock compensation in 2009, were recipients of "exceptional assistance," which subjected them to the most stringent compensation restrictions enacted by the ARRA in 2009. The other three large recipients reporting no stock-based compensation – JP Morgan, Goldman Sachs, and Morgan Stanley –

Table 4
2009 Compensation Elements

COMPANY	SALARY	BONUS	STOCK AWARDS	STOCK OPTIONS
Citigroup	$ 125,001	-	-	-
Bank of America	-	-	-	-
JP Morgan	1,000,000	-	-	-
Wells Fargo	5,600,000	-	$13,083,386	-
Goldman Sachs	600,000	-	-	-
Morgan Stanley	800,000	-	-	-
PNC	2,750,000	-	8,061,442	$ 3,811,008
US Bancorp	915,491	-	2,500,000	2,500,000
SunTrust Banks	1,077,300	-	1,365,395	3,263,250
Capital One	-	-	2,000,019	4,000,001
Regions Financial	995,000	-	4,716,067	1,943,062
Fifth Third	2,108,747	-	2,209,403	824,775
American Express	1,201,923	$5,125,000	-	3,985,637
BB&T	900,000	373,691	582,334	881,999
Bank of New York Mellon	1,000,000	2,625,000	4,929,467	5,004,484
KeyCorp	1,642,731	-	1,247,483	2,142,000
CIT Group	803,077	-	-	-
Comerica	985,000	-	1,801,280	545,908
State Street	1,000,000	-	-	-
Marshall & Isley	875,000	-	437,496	-
Northern Trust	900,000	-	2,597,068	4,968,921
Zions Bancorporation	875,000	-	437,493	-
Huntington Bancshares	1,114,409	550,000	124,210	400,685
Discover Financial Services	1,000,000	-	4,627,613	-
Synovus Financial Corp.	928,200	-	-	-
Popular, Inc.	741,600	600	-	-
First Horizon	830,769	-	3,787,500	-
M&T Bank Corporation	675,000	-	2,000,013	-
Associated Banc-Corp*	1,086,092	-	1,326,702	179,720
First BanCorp	778,846	2,200	-	-
City National Corporation	978,528	-	1,175,002	1,874,996
Webster Financial	1,335,800	-	827,598	-

were all investment banks prior to the financial crisis and received particular criticism for their roles in developing and promoting the complex financial instruments believed to have contributed to the collapse of the housing market and the subsequent financial crisis. Of the three elements of executive compensation, salary remained the most stable, rising moderately over the period surrounding the financial crisis and only being drastically cut at a relatively small number of banks. It takes a certain degree of knowledge and skill to run a company, and salary is intended to compensate executives for these traits and for the high level of effort involved.

The consistency in salaries from 2007 through 2009 also reflects the inherent difficulties of managing a bank through a period of crisis and provides a base level of compensation that is not directly tied to financial performance.

CONCLUSION

The changes in compensation among TARP recipients during the three years around the 2008 financial crisis appear to be consistent with agency theory, which suggests that compensation should rise during economic upturns and fall during economic downturns. Additionally, compensation should be highest for the best-performing banks and lowest for the least healthy banks. In 2007, prior to the start of the financial crisis, compensation was higher throughout the industry than in subsequent years. When bank performance declined as the financial crisis unfolded in 2008, compensation also decreased. These trends are consistent with agency theory. Based on 2009 data, the industry experienced further declines in executive pay, which was to be expected during the Great Recession. Incentive compensation, in particular, dropped substantially. The largest reductions in compensation occurred at the largest troubled banks, specifically Citigroup and Bank of America – recipients of exceptional levels of TARP funding that became subject to the most stringent compensation restrictions enacted in 2009. Overall, executive pay at banks receiving federal bailouts fell during the financial crisis and following the implementation of TARP.

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SOCIAL MEDIA AND HUMAN RESOURCE STAFFING: LEGAL, POLICY AND PRACTICE ISSUES FOR EMPLOYERS

Gerald E. Calvasina, Southern Utah University
Richard V. Calvasina, University of West Florida
Eugene J. Calvasina, Southern University

ABSTRACT

The use of social media by employers to find and select the right individuals to employ has increased dramatically in recent years. Bullhorn, an international recruitment software company, reported that 98% of respondents to its survey of recruiting agency professionals used social media for recruiting in 2012 (Bullhorn, 2013). With increased use of social media, employers are also discovering additional legal risk. The purpose of this paper is to examine how employers are utilizing social media to find and select the right individuals, the potential legal risk associated with the use of social media and human resource staffing, and the steps employers can take to reduce their exposure to litigation.

INTRODUCTION

What is social media? A recent Society for Human Research Management (SHRM) research report titled "Social Media in Business Strategy and Operations" defined social media as:

> Web-based tools and technologies used to share information and turn communication into interactive dialogues with internal or external audiences. Examples include Linkedin, Facebook, Twitter (SHRM, 2013).

While social media websites existed before the 2002 launching of Linkedin and the 2004 launching of Facebook, their use was limited. In the last three years their use by individuals and in turn employers has exploded dramatically. Facebook membership reportedly grew from 161 million registered worldwide users in January 2012 to more than a billion monthly active users in December of 2012 (Oracle, 2012 and Facebook, 2013). LinkedIn reported that it had grown from 100 million members in March of 2011 to 200 million members in January of 2013 (LinkedIn, 2013).

As Facebook, LinkedIn, and other social networking sites have continued to attract users, employers have also ramped up their use of social media. Time and money – two key resources most organizations attempt to maximize – are at the top of the list of reasons driving organizations of all sizes and kind to find more ways to utilize social media. From a marketing prospective, for example, social media enables organizations to connect with a wide audience at the stroke of a key pad with minimal cost (Frost, 2013). Access and use of the most popular social media sites is free, and given the increasing number of people utilizing social media in their daily lives, utilizing social media as part of an organization's promotional plans can allow them to "stretch" their "advertising dollars further" (Frost, 2013). Organizations have also been utilizing social media to drive overall business operations and in turn results. At Unisys for example, the organization has been attempting to use "social media tools to become more agile, to share knowledge, and to increase the speed of innovations" with the goal of improving individual employee and organizational productivity (Meister, 2011).

HR STAFFING

With respect to the use of social media to find and select the right individuals to employ, employers are attempting to take advantage of the same factors driving marketers and managers in general – money & time. With more and more individuals visiting social media sites than reading the Sunday want ads when looking for work, it is obvious why survey data reports as many as 95% of companies are using Linkedin and other sites to find the right individuals to employ. A hrmreport.com article reported that Microsoft saved $88,000 in recruitment fees using Linkedin and that brewer SAB Miller saved $1.7 million by employing people directly through Linkedin (hrmreport.com, 2013). Using social media to recruit has also been reported to help employers reach job candidates that are no longer using traditional sources and in some cases reaching higher-quality candidates. According to an Oracle white paper on how to effectively use social networks in recruiting,

> "Individuals who frequently use social networks tend to be early adopters of innovation and also tend to be more technically savvy (Sullivan, 2009). These are the traits many companies look for in potential candidates. Social networks offer a fast way to connect with these individuals" (Oracle, 2012).

Another potential reason for using social media in recruiting often cited in the literature is the ability of employers to establish relationships with potential employees over time. Following individuals over time enables employers to more effectively "determine cultural fit" (hrmreport.com, 2013). Along those same lines, many employers are utilizing social media sites as a cost effective way to conduct background checks (hrmreport.com, 2013).

Building a positive "brand image" is another important marketing concept that social media can be part of an organization's strategy to attract quality candidates. Social media sites can be utilized to present messages, photos and videos to profile an organization and build an organization's image (Frost, 2013).

POTENTIAL LEGAL RISK

A variety of potential legal risks have been identified in the literature, with discrimination allegations on all covered basis getting most of the attention. The focus on potential discrimination allegations is being driven in part by the U.S. Equal Employment Opportunity Commission's (EEOC) Strategic Enforcement Plan for Fiscal Years 2013 – 2016 approved in December of 2012 (EEOC, 2012). In the plan, the EEOC identified six priorities for enforcement:

EEOC Strategic Enforcement Priorities (SEP) 2013 - 2016

1. Eliminating Barriers in Recruitment and Hiring
2. Protecting Immigrant, Migrant and Other Vulnerable Workers
3. Addressing Emerging and Developing Issues
4. Enforcing Equal Pay Laws
5. Preserving Access to the Legal System
6. Preventing Harassment Through Systemic Enforcement and Targeted Outreach (EEOC, 2012).

In an August 24, 2012 training workshop, EEOC trial lawyer Edward Loughlin was quoted as saying the use of social media in the employment context has "been on the radar screen for the commission for several years now"(Larson, 2012). Employers' use of social media then, could come under EEOC scrutiny under three of the EEOC's SEPs in coming years and employers using social media in staffing processes could be creating "an absolute legal mine field" for themselves (Larson, 2012).

The primary risk factor for employers that utilize social media in their recruitment and hiring processes is the information they observe from simply visiting an applicant's Facebook or Linkedin page. Today, any information related to an individual's race, sex, religion, national origin, age, pregnancy status, marital status, disability, genetic information, and in some jurisdictions, sexual orientation, is considered to be potentially unlawful to use in making employment decisions. According to Mr. Loughlin, 'merely accessing the information could create an issue for a company down the road when someone files a charge" (Larson, 2012). The issue for the employer down the road is associated with a decision maker's ability to claim that they lacked knowledge as to important impermissible characteristics of the applicant. For example, an applicant makes an allegation of race discrimination against an organization. If the individual can show that a hiring manager involved in the decision making process had visited the applicant's Facebook page and viewed a picture of the applicant, a claim that they were not aware of the applicant's race will be difficult to sustain.

Employers with Federal Government contracts that use social media as part of their staffing process have additional risks to consider. These contractors are subject to Office of Federal Contract Compliance Programs (OFCCP) regulations, and those regulations require contractors to maintain detailed records related to the recruiting and selection of employees. This includes maintaining records on the backgrounds of job applicants and details on the sources utilized to find employees (Bates, 2013).

The heightened risk of disparate impact allegations has also been identified in the literature as a potential risk for firms utilizing social media for recruiting purposes. Allegations of disparate impact under Title VII involve claims that an employer's employment policy or practice causes a statically significant disproportionate impact based on a protected trait. Plaintiffs do not have to establish the existence of an unlawful motive or intent to discriminate but must establish that while the "practices are fair in form", they operate as "built-in headwinds for [a protected class] and are unrelated to measuring job capability" (EEOC Compliance Manual, 2011). The EEOC's guidelines go on to note that "Title VII is violated by recruiting persons only from largely homogeneous sources if the recruitment practice has a racial purpose, or if it has a significant racial impact and cannot be justified as job related and consistent with business necessity" (EEOC Compliance Manual, 2011).

The primary concern for employers utilizing social media for recruiting is that these sources may not be representative of the total labor pool available for jobs they are attempting to fill. For example, Facebook users have been reported to be "disproportionately under the age of 40" (Larson, 2012). Employers attempting to market to a younger age group may be unintentionally not reaching protected class individuals, those over 40 and protected from adverse impact discrimination by the Age Discrimination in Employment Act. Another published report noted that only 5 percent of LinkedIn's members are African American (versus 12.8 percent of the total population) and again, increasing the potential that the employer is not reaching potential applicants with protected class status (Oracle, 2012). The inability to reach members with protected class status may thus result in underrepresentation in the applicant pool and lower selection rates for protected class individuals thus creating the type of statistical evidence utilized by plaintiff's attorneys to establish claims of disparate impact discrimination. One final note from the EEOC guidelines that should heighten employers utilizing social media for recruitment is the following:

Who ultimately receives employment opportunities is highly dependent on how and where the employer looks for candidates. Accordingly, Title VII forbids not only recruitment practices that purposefully discriminate on the basis of race but also practices that disproportionately limit employment opportunities based on race and are not related to job requirements or business needs.[(80)] For example, recruiting from racially segregated sources, such as certain neighborhoods, schools, religious institutions, and social networks, leads to hiring that simply replicates societal patterns of racial segregation (EEOC Compliance Manual, 2011).

Another federal antidiscrimination statute, the Genetic Information Nondiscrimination Act (GINA), prohibits employers from requesting family medical history and discriminating against employees or applicants because of genetic information. For example, an individual soliciting donations on behalf of a close family member battling cancer on their Facebook page also happens to be in the job market. A prospective employer visits the individual's page and notes the solicitation for their close family member battling cancer in their evaluation of the potential applicant. The prospective employer is now aware of information that is unlawful to consider in the selection process and may have provided the applicant with enough evidence to launch a discrimination claim. The EEOC announced in May of 2013 the settlement of its first GINA discrimination lawsuit. While this litigation did not involve the use of social media, it is considered and "emerging and developing" issue that the EEOC's Strategic Enforcement Plan is designed to pursue (EEOC Press Release, 2013).

Table 1.

States with Tobacco Only Statutes	
Connecticut	District of Columbia
Indiana	Kentucky
Louisiana	Maine
Mississippi	New Hampshire
New Jersey	New Mexico
Oklahoma	Oregon
South Carolina	South Dakota
Virginia	West Virginia
Wyoming	
States with Lawful products Statutes	
Illinois	Minnesota
Missouri	Montana
Nevada	North Carolina
Tennessee	Wisconsin
States with Engage in Lawful Activities Statutes	
California	Colorado
New York	North Dakota

Source: National Conference of State Legislatures (NCSL), (NCSL, 2011).

A variety of state laws can also create legal problems for employers utilizing social media in recruiting. Many states have "lifestyle discrimination" laws which protect employees from discrimination in employment for consumption of legal products or engaging in lawful activities. As with the example above regarding potential problems with GINA, a prospective employer visiting an employee's Facebook page after an individual has uploaded pictures of the employee smoking and or drinking at a private party. Cigarettes and alcoholic beverages are still considered legal products in the United States and a number of states have enacted legislation that protects employees from discrimination when they consume lawful products or participate in lawful conduct off-duty and off the employers' premises (see Table 1).

The prospective employee who alleges that they may have been discriminated based on what the employer saw on the Facebook page may have enough to pursue a discrimination claim at the state level.

Another legal issue associated with employers using social media as part of their staffing effort has been the request by some employers that current and potential employees provide username and passwords to their private social media accounts. Employers "argue that access to personal accounts is needed to protect proprietary information or trade secrets, to comply with federal financial regulations, or to prevent the employer from being exposed to legal liabilities" (NCSL, 2013). Critics contend that employer request for access to personal accounts is "an invasion of employee privacy" (NCSL, 2013).

This issue came to the attention of state and federal legislators after a report of a Maryland employee being "mortified" after their "employer requested and received his Facebook username and password" (Poerio and Bain, 2012). Since the controversy surfaced, "legislation has been introduced or is pending in at least 36 states" with eight other states enacting legislation in 2013. Six states had previously enacted statutes in 2012 (See Table 2).

Table 2

States Enacting Username and Password Protection Statutes	
2013	2012
Arkansas	California
Colorado	Delaware
Nevada	Illinois
New Mexico	Maryland
Oregon	Michigan
Utah	New Jersey
Vermont	
Washington	

Source: NCSL (2013, A & B).

The coverage of these statutes may vary, for example the New Mexico law only applies to job applicants and the Utah and most other state statutes apply to both employees and job applicants (Deschenaux, 2013). In addition to the issue gaining the attention of state legislatures, Representative Eliot Engel, a member of U.S. House of Representatives, introduced H.R. 537: Social Networking Online Protection Act on February 6, 2013. The statute would prohibit employers from requesting or requiring that employees and other individuals provide a user name, password, or other means for accessing a personal account on any social networking website (H.R. 537, 2013).

WHAT SHOULD EMPLOYERS DO TO MINIMIZE LEGAL RISK AND MAKE EFFECTIVE USE OF SOCIAL MEDIA IN RECRUITING?

Given the many potential benefits associated with the use of social media by organizations, the increased use of social media by decision makers in a variety of processes will also increase the potential legal risk. Policies and procedures should be developed by employers to minimize the potential legal risk and realize the benefits associated with the use of social media in their organizations. For example, an often mentioned recommendation in the literature for organizations attempting to minimize discrimination allegations is to utilize diverse recruiting methods. If an employer over emphasizes a social media network that does not have participation by certain protected groups it may create the appearance of discrimination. While simply creating the appearance of discrimination may not be enough to sustain an allegation of discrimination, in this day and age where an organization's "image" is so important for a variety of reasons, many organizations are very sensitive to even an unfounded allegation of discrimination. While targeting a particular market may be a sound marketing strategy it can be a risky approach to finding potential employees.

Another often made recommendation to minimize potential legal risk associated with human resource decision making in general is the development and implementation of policy to guide human resource management decision makers. The development side can be complicated at this stage of the life cycle for the use of social media in staffing primarily because of emerging legislation at the state and federal level and the limited number of court decisions to guide legal counsel. We do have some policy statements and warnings from some regulators, the EEOC in particular, but so far much of what we have is advice and not case law to guide policy makers.

There is some general advice on minimizing discrimination allegations. First, it is important to educate and train individuals involved in the staffing processes in organizations on basic non-discrimination concepts. Second, recruiters must avoid focusing on protected class characteristics of applicants, such as race, sex, religion, age, ethnicity, and disability. Third, decision makers should be trained to focus on job related concepts and the ability of applicants to perform the essential functions of the jobs they are being considered for. Fourth, to shield decision makers from utilizing information about applicants they should not have, one suggestion is to utilize individuals who are not involved in the decision making process as information "filters" to screen out "information pertaining to protected characteristics before the search results are forwarded to those who are making the hiring decisions"(Recalde, 2012). Fifth, screeners should be properly trained to utilize job related criteria in evaluating applicants (Bates, 2013). This additional layer of review will add to the cost associated with the process, but it may insulate decision makers from the accusation that they used impermissible information in making their selection decisions. Firms that do not have the resources to employ another layer in their recruiting process may delay using social media in their screening process until after they have met the candidate in person. This way, the employer will not be exposed to basic demographic information about the applicant that they should not have (Bates, 2013).

Sixth, in attempting to minimize allegations of discrimination of any kind, consistency across the organization with respect to how applicants are evaluated is critical. If the organization believes that utilizing social media is relevant to its selection process it should be utilized when evaluating all applicants. As noted previously, employers subject to OFCCP regulations have an even greater burden to minimize discrimination allegations if they are using social media in their recruiting process. Employers are advised to use a "diversity of recruiting methods" to avoid excluding protected class individuals (Recalde, 2012). Bates reported that "recent survey show that social media sites have lower percentages of Latino and black users than are in the general population", so employers overreliance on social media in recruiting could give rise to discrimination allegations and make defending their recruiting practices difficult (Bates, 2013).

Seventh, employers utilizing outside agencies to generate background reports on applicants should also keep in mind the Fair Credit Reporting Act (FCRA) if social media is utilized in generating those reports. Suggestions in the literature for FCRA compliance include requiring all job applicants to provide a signed authorization to perform the background check and to insist that your third party provider follow all relevant laws and regulations when gathering information about applicants (McHale, 2012).

One final note for employers relying on outside agencies and internet based sources of information, is the potential that information provided by outside agencies or found online many not be accurate or true (Wright, 2013). The notion that if it's on the internet or came from a credit reporting agency it must be true or accurate, has been debunked on numerous occasions. In July of 2013, an Oregon woman won an $18.6 million award regarding allegations that her credit-report contained errors that the credit reporting agency failed to correct for years (Snider, 2013). A recent survey also reported that "nearly a quarter of Americans have seen problems on their credit reports" (Snider, 2013.

While risk analysis associated with the myriad of laws and regulations associated with the use of social media in staffing is critical, "can you show how you saved money or drove value?" through its use (Oracle, 2012). Key for managers responsible for the organization's staffing process is to identify measurable objectives, identify costs, and to assess outcomes.

Development of metrics associated with the objectives is essential. Common metrics recommended to assess any staffing process include candidates per source, cost per source, hires per source, cost per hire, and time to hire (Oracle, 2012).

SUMMARY AND CONCLUSIONS

The use of technology in the management of organizations human resources has expanded at a break neck pace in recent years. Automated screening and testing technology have been adopted by cost conscious decision makers as a means to more efficiently attract and assess applicants (Robb, 2013). The use of social media in the staffing process is part of the effort by decision makers to more effectively and efficiently attract and assess applicants via technology. As the use of social media in the staffing process continues to come under the scrutiny of regulatory agencies like the EEOC, the OFCCP, and legislators, employers risk management of its use must be enhanced. Additionally, organizations should continue to assess the return on investment in technology associated with its staffing processes. This assessment should be driven by those managing those systems to make sure objectives are being achieved in a legal, efficient, and effective manner.

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INCENTIVE COMPENSATION FOR BANK CEOS AND CFOS BEFORE AND AFTER THE FINANCIAL CRISIS

Rick Proctor, Siena College
James Murtagh, Siena College

ABSTRACT

The recent financial crisis has resulted in increased scrutiny of bankers' pay, as many argued flawed compensation schedules aggravated the financial crises. In this paper we examine the impact of recent compensation regulation on bankers' incentive compensation implemented in response to such criticism. The regulations were intended to change the relative make-up of incentive compensation to encourage a long-term perspective in decision-making, and to limit excessive risk-taking. We examine the relative mix of cash, stock, and option-based compensation to determine if the regulations had their intended direct effect. Our results indicate that for the most part, the regulations did indeed have their desired impact.

INTRODUCTION AND LITERATURE REVIEW

The recent financial crises have resulted in both significant public pressure and government regulation to limit bankers' compensation. Politicians and the public press have decried the "outrageous" pay taken home by bankers during the recent economic troubles. Congress has enacted legislation to limit pay, and more specifically to limit the types of incentive pay.

In response to the banking crises and in part the public outrage at bankers' compensation during this period, Congress passed several sets of legislation to try and address this issue. In October of 2008, Congress passed the Emergency Economic Stabilization Act of 2008 (EESA), limiting the executive pay on those firms receiving TARP (Troubled Asset Relief Program) funds (Martin, Adkins and Oehmann III, 2009.) Additional limitations were added under the American Recovery and Reinvestment Act of 2009 (ARRA), which was enacted in February of that year; some of these proscriptions apply retroactively (Martin, et al., 2009). Both of these Acts were modified and updated since their introduction to try and better achieve their objectives.

Specific restrictions on executive compensation under these Acts included:

1. *The limitation on the deductibility of executive compensation over $500,000 per executive.*
2. *Prohibitions on the payment of bonuses, retention awards, or incentive compensation, except for certain long-term stock awards. The value of the stock is*

not to exceed 1/3 of total annual compensation, and the stock may not vest until after all TARP-related obligations have been met. Restricted stock is exempt from the $500,000 annual compensation limitation.

3. *The disclosure and justification for perquisites over $25,000 paid to any executive.*
4. *Limits on compensation that excludes incentives for executives to take "excessive risks", which is to be implemented by compensation committee review of incentive programs. (McGuireWoods white paper)*

These restrictions apply as long as any obligations from any TARP financial assistance remain outstanding.

In addition, to the strict legal requirements singling out the TARP-affected firms, other, more subtle (or not-so-subtle), pressures were put on the banking industry to limit pay. Kenneth Feinberg, Treasury master for executive compensation (Obama's "pay czar") proclaimed that nearly 80% of $2 billion in 2008 banker bonuses was unmerited, and that the criteria used to award the bonuses was "haphazard." (New York Times, July 23, 2010, Eric Dash) He therefore pushed boards to use more stock and less cash in their compensation packages. This was intended to limit excessive risk-taking. Towards this objective, he also promoted the use of more deferred compensation with a vesting time-frame of 3-5 years.

Fahlenbrach and Stulz (2011) nicely summarize the arguments made for regulating incentive compensation. "The argument seems to be that executives' compensation was not properly related to long-term performance…"(p. 11) "…CEOs had strong incentives to focus on the short run instead of the long run. Another version [of the poor incentives argument] is that option compensation gave incentives to CEOs to take more risks than would have been optimal for shareholders. (p. 12.) They note that previous studies find that bank executives receive less of their pay in the form of stock and options (and therefore more in cash) than in other industries. (Adams and Mehran, 2003, Houston and James, 1995.)

THE PURPOSE OF THIS STUDY

We wish to examine whether indeed the compensation restrictions have had their intended effect of altering the composition of banking executives' compensation. Did the EESA, ARRA, and related compensation regulations, along with the accompanying public and political pressure, result in the managers' compensation packages being altered to promote better long-term decision-making and to discourage unnecessary risk-taking? To attempt to answer these questions, we will test the following three hypotheses:

H1 *The relative use of cash-based incentive compensation has declined in response to the regulations.*
H2 *The relative use of stock-based incentive compensation has increased in response to the regulations.*
H3 *The relative use of option-based incentive compensation has declined in response to the regulations.*

The logic behind H1, as noted above, is that current cash-based compensation, which by definition will not be dependent on future stock performance, will cause managers to focus more on the short term and less on the long term. This is exacerbated by the fact that cash-based incentives are often based on short-term performance measures, and are often based on accounting, not stock, measures (such as ROE or EPS growth.) A complimentary argument is that if more wealth is cash-based, the manager may undertake excessively risky projects since the stock wealth effects are less relevant. Therefore, if the Acts have their intended effect on compensation, we should see the relative use of cash-based incentives decline.

The logic behind H2 of course is that the more stock-based compensation the manager receives, the more he will make decisions considering the long-term implications of his actions; the more he will align his interests with those of his shareholders. Practically, the Acts encourage the use of restricted stock to achieve this purpose.

The logic behind H3 is that it is argued that the "overuse" of options also leads to excessive risk-taking by managers. Since the options are more volatile than the underlying stock, and the manager is only concerned with upside volatility of the option, the manager will take on excessively risky projects in order to take advantage of the option's upside volatility. Therefore the restrictions and pressures on banking compensation should lead to the relative reduction in the use of options.

These three hypotheses will be tested using the sample described below.

DATA, SAMPLE, AND METHODOLOGY

The sample for this study consists of bank CEOs and their second-in-commands for the largest U.S. banking institutions. We used Capital IQ to identify the largest "Banks (Primary)" and "Diversified Financials (Primary.)" This specification includes commercial banks such as Wells Fargo, and the financial institutions engaging in both commercial and investment banking such as JPMorgan Chase. We want to include the types of banking institutions that were affected by the compensation regulations initiated in response to the financial crisis. Our initial sample included the 50 largest institutions based on total assets in fiscal year 2010. The largest firm in our final sample (JPMorgan Chase) had total assets of $2.1 trillion, and the smallest bank had assets of just over $16 billion. For practical purposes our sample includes the bulk of the firms most affected by the compensation restrictions. By dollar value, our sample includes the firms with about 50% of total (commercial) banking assets for the fiscal year 2010 ($6.05 trillion of $12 trillion in commercial banking assets. (www.federalreserve.gov) Note that our sample excludes a few of the major firms significantly impacted by the compensation regulations, such as AIG (insurance) and Chrysler Acceptance Corporation (vehicle financing.) While these firms were significantly impacted by the regulations, they do not have banking functions in the strictest sense, which is our focus. Additionally, the company must have common stock traded on a public U.S. exchange. This requirement ensures that the compensation information will be publicly available in the firm's annual proxy statement.

The sample period for this study includes the fiscal years 2007-2010. The most significant of the compensation restrictions were put in place in 2008-2009. Therefore we've included the "before, during and after" period of incentive compensation restrictions.

The executives in this sample include both the CEO and the second-ranking executive. Information on these managers was obtained from the firms' original proxy statements, accessed through the EDGAR electronic filing system. To qualify for inclusion, a CEO must have held this title during the fiscal years of at least 2008-2010. Therefore, if there was a change in the CEO during this period, that CEO was excluded from the sample. This was to help insure that changes in the compensation packages were not related to a change in the individual CEO. Most of the CEOs who made it to our final sample were in fact in office for all 4 years. This criterion did significantly reduce our sample size, as many CEOS were replaced during this time. We also include the second ranking executive because the compensation regulations affected all top executives, generally the top-25 most highly paid executives. In addition, some have suggested that the non-CEO executives face even greater incentives to undertake riskier-short-term projects. Fahlenbrach and Stulz (2011) cite a 2009 Wall Street Journal article by Alan Blinder in which he writes that for these executives "it's often: Heads, you become richer than Croesus… tails, you receive a golden parachute that still leaves you richer than Croesus. So [the upper level executives] want to flip those big coins, too." An examination of how options are used in compensation may help to address this issue. The vast majority of these second-in-command executives hold the title of Chief Financial Officer; a few are Chief Operating Officers. These officers must have held the same positions for at least the fiscal years 2008-2010, with fiscal year 2007 included if relevant. Again, the vast majority of these executives held their positions all 4 years.

Compensation data was also obtained from the firms' proxy statements. The proxy statements contain a section on executive compensation, including a summary table listing the various components. This summary table is required to be included in the proxy, and the format is consistent across firms. The table lists the following components of compensation: salary, bonus, stock awards, option awards, non-equity incentive plan compensation, change in pension value and non-qualified deferred compensation earnings, all other compensation, and total compensation. These components are defined below.

Salary: A fixed annual amount paid to the executive invariant to performance. It is usually paid in cash. In some instances, especially after the new compensation restrictions, part of a manager's salary may be paid in the form of stock, either restricted stock or performance stock (defined below.) This would be indicated by a footnote to the summary table. For the purposes of this study, only cash compensation was included in salary. Stock-based salary was added to the stock awards category.

Bonus: A payment made for meeting some performance measure, generally short term in nature. The vast majority of bonuses are paid in cash. If the footnotes indicated that part of a bonus was paid in some form of stock, that portion was included in the stock awards category.

Stock Awards: Equity-based compensation paid to the manager in some form of stock shares. It may take the form of restricted stock; with the restriction(s) being that the manager may not sell the stock for a period of 3-5 years (and in addition there usually is a vesting period), and that the shares do not confer voting rights until the shares vest. The vesting of the shares may be contingent on the manager meeting certain multi-year performance standards during the course of the vesting period. Stock awards may also include performance shares or phantom shares. These generally operate in a similar fashion to restricted shares: their value fluctuates along with the firm's publicly traded stock (both on the upside and the downside), and there is also a performance-based, multi-year vesting process. Phantom shares mimic the price movement of the firm's stock, but the manager will get the cash value of the shares when he is entitled, not actual shares themselves. This is to prevent dilution of the firm's stock. Performance shares are so named because of the performance objectives that the manager must meet to "earn" the shares. The key features of this form of compensation is that the manager's value of stock award increases or decreases directly as the market stock price increases or decreases, and that they usually require the managers to take a long-term (3-5 year) perspective.

Option Awards: Options on shares of the company's common stock. They are generally granted at an exercise price equal to the market price on the date of grant, and may have a life of 1-5 years. They generally vest over time often several years, and may not be exercised before that time. Options are valued using methods acceptable under GAAP, notably the Black-Sholes pricing model commonly accepted as the standard for valuing options. The key feature of options is that the downside risk is limited, and the value of an option will fluctuate much more than the value of the underlying stock.

Non-equity incentive plan compensation: This is essentially the cash payment for longer-term incentive plans, often used in combination with stock or option awards. In some sense, it is similar to the cash bonuses paid for short-term performance.

Change in pension value and non-qualified deferred compensation earnings: This category includes pension contributions and the change in the value of the manager's pension account over the year, and the accruing value of payments to be made were the executive to be terminated or replaced in a takeover. This compensation is dependent on many specific factors such as the executive's age, promised pension, annual firm contributions, and severance arrangements. It is generally not based on managerial performance or considered incentive compensation

All Other Compensation: This is a catch-all category that includes the manager's perquisites. For example, it includes country club memberships, auto allowances, life insurance premiums, use of the company's airplane, and other perks. It also is not based on managerial performance, and is not considered incentive compensation.

Total Compensation: This is simply the sum of the preceding seven categories of compensation.

For the purposes of this study, while we will look at all components of compensation, we will mainly focus on the incentive-based compensations: (cash) bonus, stock awards, option awards, and non-equity incentive plan compensation.

RESULTS

Bank CEO and CFO Compensation, 2007-2010

To get some perspective on the managers' compensation, we first look at the dollar amounts of the various forms of compensation for the CEOs, shown in Panel A of Table 1. Over the 4 year time frame, mean (median) salaries increase from $831,878 ($866,534) to $1,132,174 ($979,203). For this sample, the financial crisis did not depress their salaries, in spite of the fact that some firms receiving TARP funds had to limit annual salaries to $500,000 in the latter years. The average cash bonus declined overall, as expected, given the restrictions on that form of compensation. Note that it increased significantly in 2010, perhaps due to the fact that as firms repaid their TARP funds they were free to resume their earlier compensation schemes. Also note that the median cash bonus is 0; most firms do not use this specific form of compensation. Stock awards generally trended up, from a mean of $2.076 million to $2.810 million, and a median of $778,863 to $1.424 million. This is consistent with our hypothesis that the use of stock-based compensation should increase due to the restrictions and pressures of the times. Option awards decline significantly over this time, from a mean (median) of $2.158 million ($1.177 million) to $1.154 million ($0). This is also consistent with our hypothesis that the use of options, which may induce managers to take unnecessary risks, should decline. The median indicates that less than half of the CEOs received option awards in 2010, as contrasted with 80% in 2007. Non-equity (cash) incentive compensation does not show any significant trend over this period. We would expect this form of pay to decline. All other compensation trends down as well. This result is consistent with the fact that this item was being scrutinized by the regulators, and in turn the boards of directors. Also, amounts exceeding $25,000 required justification under the new regulations. Finally, mean total CEO compensation declined significantly from 2007 to 2009, by almost $2.5 million. But it then increased in 2010 to $7.8 million. And interestingly, the median total pay, more telling for our small sample, increased from $5 million to $5.6 million from 2007-2010, although it did decline over the two intervening years.

Table 1
Bank CEO and CFO Compensation, 2007-2010.
For each measure the mean is provided. The median is shown in parentheses below.

	2007	2008	2009	2010
Panel A. CEOs	n=25	n=27	n=27	n=27
Salary	$831,878 ($866,534)	$864,074 ($879,800)	$1,089,264 ($915,491)	$1,132,174 ($979,203)
Bonus	$2,059,691 $0	$5,654 $0	$12,000 $0	$453,372 $0
Stock Awards	$2,075,603 ($778,863)	$2,432,258 ($922,675)	$2,253,136 ($1,283,598)	$2,810,415 ($1,424,979)
Option Awards	$2,158,091 ($1,177,403)	$2,999,114 ($956,000)	$1,087,817 ($280,454)	$1,154,483 $0
Non-Equity Inc. Comp	$869,024 ($389,750)	$259,956 $0	$362,157 $0	$1,083,137 ($290,314)
Chg. In pension value	$956,710 ($166,737)	$558,813 ($121,919)	$1,037,887 ($696,500)	$1,198,994 ($425,125)
All Other Income	$264,135 ($166,702)	$198,645 ($122,176)	$175,268 ($94,179)	$196,032 ($98,151)
Total Compensation	$9,017,511 ($5,406,780)	$7,267,282 ($4,099,438)	$5,886,058 ($4,060,788)	$7,884,533 ($5,600,683)
	2007	**2008**	**2009**	**2010**
Panel B. CFOs	n=26	n=27	n=27	n=27
Salary	$522,649 ($512,500)	$549,331 ($550,000)	$759,143 ($560,000)	$721,915 ($601,887)
Bonus	$1,344,075 $0	$84,254 $0	$138,269 $0	$371,195 $0
Stock Awards	$1,323,693 ($255,508)	$1,552,772 ($314,640)	$1,150,833 ($600,031)	$1,479,503 ($696,931)
Option Awards	$1,335,245 ($403,917)	$1,616,514 ($385,176)	$599,906 ($244,754)	$461,073 ($77,300)
Non-Equity Inc. Comp	$487,723 ($250,000)	$127,980 $0	$152,141 $0	$506,506 ($235,043)
Chg. in pension value	$133,981 ($16,319)	$178,021 ($17,615)	$211,361 ($54,642)	$310,671 ($56,557)
All Other Income	$133,197 ($115,745)	$113,673 ($83,258)	$101,013 ($52,305)	$103,775 ($36,196)
Total Compensation	$5,007,546 ($1,855,197)	$4,144,747 ($1,954,053)	$3,069,157 ($1,785,426)	$3,735,573 ($2,196,065)

For the CFOs, the results are fairly similar. Salaries increase over time and bonuses decline significantly. Curiously, stock awards do not increase significantly. Option awards decline by a sizable amount in the last 2 years, consistent with our arguments. Non-equity incentive compensation shows no strong trend, and all other income declines. Total mean compensation for these executives declines over the 4 years, but the more statistically valid median actually increases from $1.86 million to $2.2 million.

Next we look at the total incentive compensation (cash bonus, stock awards, option awards, non-equity based incentive compensation), which is our primary interest. Overall incentive pay is relatively stable over time; the percentage ranges from about 54% (58%) to 61% (63%.) It appears that (percentagewise) the managers' total incentive pay remained fairly steady throughout this volatile economic period; we will see if the relative components of incentive compensation varied.

In summary, this unscientific review of compensation is generally consistent with our hypotheses, but of course this will require more rigorous analysis.

Component Percentages of Bank CEO and CFO Compensation

Next we review the components of the managers' compensation in relative terms. Table 2 shows the compensation components expressed as a percentage of total compensation. Salary as a percentage of total compensation increases through 2009; then declines somewhat in 2010 for both the mean and median. It is a fairly significant component of total compensation, consistent with the agency theory argument that a risk-averse manager, with a large portion of his wealth consisting of his undiversified investment of human and financial capital in the firm, will want a fixed form of compensation that is invariant to his firm's stock price fluctuation. The variation in the percentage of salary is in part a reflection of the change in the variable incentive components, which we look at next.

The cash bonus percentage is relatively minor to begin with, at under 9% of total compensation. As predicted, it declines significantly over the next 3 years. Note that more than half the firms don't use this form of compensation. Stock awards make up an average (median) of 17.9% (17.3%) of total pay in 2007. That percentage increases significantly over the years, in line with our predictions. It almost doubles in relative importance, making up about 32% (30%) of total compensation by 2010. The regulations and public pressure seem to have had the desired effect: managers received relative more (restricted) stock, which should motivate them to make better long-term decisions. And also as predicted, the use of stock options fell significantly over this period. Mean (median) option award compensation fell from 24% (24%) to 9% (0%) of total pay. As the median indicates, less than half of the CEOS received any option awards in 2010. Non-equity (cash) incentive compensation is also a relatively minor part of compensation. It declined as expected from 2007-2009, from 12.7% (10.3%) to 6% (0%). But then it increased back to roughly the 2007 levels. This may again reflect the fact that as firms repaid their TARP funds they could go back to their usual compensation schemes. This allows the manager to receive cash instead of the more risky equity-based incentive compensation.

The change in pension and other non-qualified deferred compensation percentages are really a function of variables outside the scope of this study. The percentages are relatively small, but not insignificant. All other compensation (the "perks") is also a relatively small percentage of pay, ranging from 3-6% of the total. It does not appear to decline significantly, as the increased scrutiny of this measure would imply.

Finally we look at the percentage of total incentive compensation (cash bonus, stock awards, option awards, and non-equity based incentive compensation), which is our primary interest. It declines significantly, from 63.5% (69.7%) in 2007 to 49.6% (57.3%) in 2009. The median levels off in 2010, while the mean increases from about 50% to 56% of total compensation.

Table 2
Bank CEO and CFO Compensation: Component Percentages, 2007-2010.
For each measure the mean is provided. The median is shown in parentheses below.

	2007	**2008**	**2009**	**2010**
Panel A. CEOs	n=25	n=27	n=27	n=27
Salary	22.01% (15.73%)	29.17% (23.58%)	30.54% (23.49%)	25.88% (17.85%)
Bonus	8.84% (0.00%)	0.21% (0.00%)	0.60% (0.00%)	3.66% (0.00%)
Stock Awards	17.86% (17.28%)	26.32% (26.38%)	29.91% (30.44%)	31.97% (29.86%)
Option Awards	24.17% (23.98%)	27.84% (28.49%)	13.07% (3.83%)	9.15% (0.00%)
Non-Equity Inc. Comp	12.68% (10.30%)	6.26% (0.00%)	6.06% (0.00%)	11.79% (11.51%)
Chg. in pension value	9.69% (1.09%)	5.31% (4.31%)	13.69% (9.03%)	13.72% (9.56%)
All Other Income	4.74% (3.35%)	4.89% (4.10%)	6.13% (2.12%)	3.82% (1.52%)
Total Incentive Comp.	63.55% (69.67%)	60.63% (59.85%)	49.64% (57.26%)	56.58% (58.74%)
	2007	**2008**	**2009**	**2010**
Panel B. CFOs	n=25	n-27	n=27	n=27
Salary	26.67% (25.31%)	30.70% (30.67%)	34.64% (32.13%)	31.83% (25.87%)
Bonus	8.87% (0.00%)	1.82% (0.00%)	2.67% (0.00%)	3.90% (0.00%)

Table 2 **Bank CEO and CFO Compensation: Component Percentages, 2007-2010.** For each measure the mean is provided. The median is shown in parentheses below.				
	2007	**2008**	**2009**	**2010**
Stock Awards	16.24% (18.00%)	24.11% (23.43%)	29.20% (29.34%)	30.91% (25.53%)
Option Awards	22.84% (20.64%)	27.26% (25.32%)	15.00% (11.86%)	9.11% (0.41%)
Non-Equity Inc. Comp	12.57% (15.25%)	5.46% (0.00%)	6.21% (0.00%)	12.61% (12.18%)
Chg. in pension value	2.89% (0.41%)	4.99% (0.45%)	6.16% (2.47%)	7.44% (1.48%)
All Other Income	6.22% (4.47%)	5.67% (4.74%)	6.11% (3.46%)	4.20% (2.06%)
Total Incentive Comp.	60.51% (62.92%)	58.64% (58.63%)	53.08% (60.69%)	56.53% (57.75%)

For the CFOs, the salary component significantly increases in relative terms, and the bonus declines. Consistent with our propositions, stock awards increase from 16.2% (18%) to 30.9% (25.5%) over the period, and option awards decline in relative importance from 22.8% (22.6%) to 9.11% (.41%) of total compensation. The non-equity incentive pay proportionally decreases then increases.

Overall incentive pay is relatively stable over time; the percentage ranges from about 53% (58%) to 61% (63%) with no significant trend. It appears that (percentagewise) the CFOs' total incentive pay remained fairly steady throughout this volatile economic period; we will see if the relative components of incentive compensation varied.

Relative Composition of Incentive Compensation for Bank CEOs and CFOs

Next we focus on the relative composition of the manager's incentive compensation. As defined above, incentive compensation consists of the cash bonus, stock awards, option awards, and non-equity (cash) incentive compensation. These are the components that are at the heart of the interest of this research. Table 3 presents the relative makeup of the incentive compensation over time. The first measure is the relative amount of total cash incentive pay, which includes the cash bonus and the non-equity incentive compensation. For CEOs, we see that this measure declined from 31.7% (28.2%) of total incentive compensation in 2007 to 7.6% (0.0%) in 2008, but then steadily increased to 22.5% (23.1%) by 2010. Our hypothesis suggests that this figure should decline over time, since cash payments don't compel the manager to take a long-term approach. For the CFOs and for the combined sample of executives, we see the same pattern.

Table 3
The Relative Composition of Incentive Compensation, 2007-2010.
For each measure the mean is provided. The median is shown in parentheses below.

	2007	2008	2009	2010
Panel A. CEOs	n=25	n=27	n=27	n=27
Cash Bonus + Inc. Comp	31.70%	7.62%	11.745	22.48%
Total Inc. Comp.	(28.20%)	(0.00%)	(0.00%)	(23.08%)
Stock Awards	22.80%	42.39%	49.40%	61.00%
Total Inc. Comp.	(23.60%)	(44.30%)	(49.60%)	(58.60%)
Option Awards	38.10%	42.60%	20.30%	12.80%
Total Inc. Comp.	(34.50%)	(41.60%)	(8.53%)	(0.00%)
	2007	**2008**	**2009**	**2010**
Panel B. CFOs	n=26	n=27	n=27	n=27
Cash Bonus + Inc. Comp	32.97%	11.64%	15.23%	24.62%
Total Inc. Comp.	(36.30%)	(0.00%)	(0.00%)	(27.40%)
Stock Awards	24.90%	42.70%	50.90%	54.80%
Total Inc. Comp.	(28.60%)	(40.80%)	(50.65%)	(49.30%)
Option Awards	38.40%	41.90%	22.70%	13.20%
Total Inc. Comp.	(33.60%)	(42.00%)	(24.00%)	(0.00%)
	2007	**2008**	**2009**	**2010**
Panel C. CEO & CFOs combined	n=51	n=54	n=54	n=54
Cash Bonus + Inc. Comp	32.30%	9.63%	13.50%	23.60%
Total Inc. Comp.	(34.80%)	(0.00%)	(0.00%)	(24.80%)
Stock Awards	23.90%	42.50%	50.10%	57.90%
Total Inc. Comp.	(28.50%)	(42.70%)	(50.10%)	(57.70%)
Option Awards	38.20%	42.30%	21.50%	13.00%
Total Inc. Comp.	(33.70%)	(41.80%)	(16.40%)	(0.00%)

Stock awards increase significantly as a proportion of total incentive compensation, in line with our reasoning. CEOs in 2007 received an average of 22.8% (23.6%) of their incentive pay in the form of stock awards. This increased steadily and significantly, to 61% (58.6%) by 2010. For CFOS and the combined sample, we see the same significant increase in the relative use of stock awards.

In contrast, the use of options declines significantly over this period. Option awards made up 38.1% (34.5%) of CEO incentive pay in 2007, and while this increased in 2008 slightly, by 2010 it had fallen to 12.8% (0.0%). The story is very similar for the CFOs and the combined sample, both qualitatively and quantitatively. This is consistent with our suggestion that the use of options should decline as the boards try to discourage "unnecessary risk taking." The decline is dramatic.

To sum up, the relative use of stock and options over the 4 year period is in line with our hypotheses; however the use of cash based incentives is not strongly consistent with our explanations. We shall now formally test our hypotheses concerning the relative composition of the manager's incentive pay.

Tests of Hypotheses: (Restated below)

H1 *The relative use of cash-based incentive compensation has declined in response to the regulations.*

H2 *The relative use of stock-based incentive compensation has increased in response to the regulations.*

H3 *The relative use of option-based incentive compensation has declined in response to the regulations.*

First we look at the test of our first hypothesis, that the restrictions placed on managerial compensation, as well as the accompanying public and political pressures, led to a decline in the relative percentage of cash incentive compensation received by the bank executives. We will test this hypothesis by look at that change in the relative percentage of (cash bonus and incentive compensation)/total incentive compensation, CHGCASHPCT (See Table 4). To get a sense of the fullest impact of the regulations, we will look at the change over the entire sample period ending in 2010. Since it is not entirely clear to us when we should expect to see the compensation packages be changed in response to the regulations and the increased scrutiny, we consider three different "starting points." We use the 2007 relative compensation schemes as a base since this is well before the first regulations, ARRA, were put in place in 2008. We use also 2008 as another starting point, since the initial ARRA regulations were put in place in 2008, and therefore 2009 would be the first complete fiscal year in which the boards could fully respond to the new requirements. And finally we use the averaged measures over the 2007-08 period as a base. As we've seen, these (and the other) components fluctuate considerably from year to year for a variety of reasons, and therefore the 2-year averages may give a more representative measure of the boards' long-term intentions about the relative influence of these measures.

The results are presented in Table 4. We begin with the results for the CEOS. None of the changes in the percentage of cash incentive compensation over time, regardless of how we define the starting point, are significantly different from 0. There is no support for our hypothesis that the CEOs will receive less cash incentive pay in response to the new bank pay regulations. We reach the same conclusion for this hypothesis with respect to the CFOs and the combined sample. There is practically no statistical support for our hypothesis that this form of compensation would be reduced in importance, and correspondingly stock-linked compensation plans would be substituted in its place.

Table 4
Relative Changes in Compensation Components over the Sample Period
(*,**,*** = significant at an alpha of .05, .01, .001, respectively)

	2007-10		2008-10		2007/8-2010	
Panel A. CEOs						
CHGCASHPCT	-9.22%		14.86%		2.82%	
CHGSTOCKPCT	38.20%	***	18.61%	**	28.41%	***
CHGOPTPCT	-25.30%	***	-29.80%	***	-27.55%	***
Panel B. CFOs	**2007-10**		**2008-10**		**2007/8-2010**	
CHGCASHPCT	-8.35%		12.98%		2.32%	
CHGSTOCKPCT	29.90%	***	12.10%	*	21.00%	***
CHGOPTPCT	-25.20%	***	-28.70%	***	-26.95%	***
Panel C. CEO & CFOs combined	**2007-10**		**2008-10**		**2007/8-2010**	
CHGCASHPCT	-8.70%	*	13.97%		2.64%	
CHGSTOCKPCT	34.00%	***	15.40%	**	24.70%	***
CHGOPTPCT	-25.20%	***	-29.30%	***	-27.25%	***

Next we look at our second hypothesis, that the boards of directors would implement compensation schedules with increased stock-based incentives in order to better link managerial compensation to that of the shareholders, and to encourage managers to take a longer-term perspective in decision making. To evaluate this claim, we look at the variable representing the change in the percentage of stock awards over time, CHGSTOCKPCT. We see that for the CEOs there is a statistically and economically significant increase in the relative use of stock awards regardless of which time period is considered. The relative use of stock-based incentives increases by a mean (median) of 18 (13) to 38 (41) percentage points. These results resoundingly support our hypothesis. It is evident that the compensation schemes were changed in line with the intentions of the new regulations.

For the CFOs, we reach the same qualitative conclusions. The relative use of stock awards increases by 12 (3) -30 (9) percentage points depending on the measure. These results are not as significant either statistically or economically as they were for the CEOs. Interestingly, the CFOs received less increased incentive to focus on the longer term than the CEOs.

For the combined sample, the results are again totally supportive of our hypothesis. The relative use of stock awards increased by from 15.4 (3.7) to 34 (15.4) percentage points over our sample period. Both statistically and economically, the regulations seemed to have their intended initial effect: to increase stock-based compensation so that managers would be more inclined to make rational long-term decisions. (Whether the managers in fact do this is a subject for further study.)

Finally, we look at the change in the relative use of option awards, CHGOPTPCT. For CEOs, the evidence is once again clear and convincing: the hypothesis that the relative use of options would decline in response to the regulatory pressures is soundly supported. All three time-frame measures are both statistically and economically significant, implying that the relative use of options decreased by about 25 (15) to 30 (26) percentage points during this study.

The relative decline in the use of options to compensate CFOs was just as significant. The relative use of options decreased by about 25 (12) to 29 (20) percentage points over the course of the study. And as expected, the results for the combined sample mirror those just cited in both statistical and economic significance. The evidence soundly supports our hypothesis that the relative use of options will decline in response to the new compensation legislation.

CONCLUSION

Based upon our results, the evidence in large part supports the proposition that the compensation regulations imposed in response to the financial crises had their initial desired effect. There was a significant increase in the relative use of stock-based compensation over the sample period. The results were both statistically and economically significant. This should induce managers to take a longer-term perspective when making decisions, and better align their interests with those of their shareholders. The relative use of options, on the other hand, declined significantly from 2007-2010, also in line with our predictions. And again the results were both statistically and economically significant. If theory holds, this relative reduction should lead managers to avoid excessively risky projects not in their shareholders' best interests.

The only hypothesis not supported related to the use of cash-based incentives. We did not find any support for the suggested impact of a decrease in the relative use of cash based incentives. Statistically, this measure didn't really change over the 4-year period.

Further study, after we accumulate a few more years of results, can attempt to determine whether these primary effects had their intended secondary effects on the managers' focus on the long term, and a reduction in risk-taking.

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IS NEUROMARKETING ETHICAL? CONSUMERS SAY YES. CONSUMERS SAY NO.

Jason Flores, Oklahoma City University
Arne Baruca, Sacred Heart University
Robert Saldivar, University of Texas, Pan American

ABSTRACT

Advancements in the development of neuroscience have created the capacity for neuroscientific methods to be applied to marketing science and ultimately marketing practice. As a relatively nascent subfield in marketing, neuromarketing applies neuroscientific methods to study consumer reactions to specific marketing related stimuli. This study analyzes the use of neuromarketing by for-profit and non-profit organizations from an ethical perspective based on consumers' point of view. The implications of consumers' ethical judgments are also explored. The empirical evidence indicates that consumers perceive the use of neuromarketing-based marketing tactics by for-profit organizations to be unethical, yet the same tactics are considered ethical when non-profit organizations use this tool. The implications of these ethical judgments show the most favorable consumer responses for non-profit organizations that do use neuromarketing based marketing practices and, interestingly, the most unfavorable response for non-profits that forego the use of such practices. Managerial implications are also discussed.

INTRODUCTION

Neuromarketing is a technology based and nascent field of marketing research aimed at observing consumers' reaction to stimuli. Measuring consumers' reaction to stimuli is a common practice and, according to Wang and Minor (2008), these measures include: (1) behavioral measures, (2) verbal measures, and (3) psychophysiological measures. Neuromarketing differs from these traditional methods of measuring reactions to stimuli because it requires the application of neuroscientific based methods for the purpose of analyzing behavior in relation to markets and marketing exchanges (Lee, Broderick, and Chamberlain, 2007). Thus, neuroscience allows marketing researchers to observe uncontrollable brain function responses that result in specific physiological responses when individuals are exposed to specific stimuli. Neuroscientific methods include fMRI (Functional Magnetic Resonance Imaging), SST (Steady State Topography), EEG (Electroencephalography), Eye Tracking, and Galvanic Skin Response (Randall 2009). Examples of companies that use neuromarketing include: Microsoft, Yahoo, Hyundai, and others listed in Table 1.

Ethical concerns are considered one of the three most important aspects related to neuromarketing among marketing academics, neurologists, and marketing professionals (Eser, Isin, and Tolon, 2011). Among the ethical critiques of neuromarketing is the concern that neuromarketing will allow an unprecedented level of manipulation by companies through their marketing activities (McDowell and Dick, 2013). This critique is based on the idea that consumers may be unjustly influenced through the use of specific stimuli that lead to specific physiological responses which can be uncovered only through neuromarketing based research.

Table 1: Companies that use Neuromarketing

Company	Industry	Purpose of using Neuromarketing
GMTV*	Television	Conduct a study to teach advertisers how viewers' brains act during morning hours
VIACOM*	Media	Study reactions to advertising
HAKUHODO*	Advertising	Observe responses to products, brands, advertising and video content
PHD*	Media planning	Measure the relative effectiveness of advertising
Martin Lindstrom* (NeuroSense)	Author	NeuroSense designed and analyzed all the fMRI studies used for Lindstrom's book research
Yahoo**	Media	Study consumers reaction to a television commercial
Hyundai**	Automotive	Study consumers reaction when viewing a sports car
Microsoft***	Technology/Software	Understand consumers' interactions with computers including their feelings of surprise, satisfaction and frustration
Microsoft**	Technology/Software	Study how engaged consumers are when using an XBOX
Ebay**	Online Auctions	Adapted ad campaign on the basis of neuromarketing research
Frito-Lay**	Food	Adjusted commercials, products, and packaging on the basis of neuromarketing based research
NeuroFocus (Conducted Neuromarketing research for, among others, Google, Chevron, and Walt Disney Company)**	Neuromarketing Research	Consulting based neuromarketing research
The Weather Channel***	Television	Study viewers reactions to promotions
Daimler***	Automotive	Study consumer reactions to car headlight characteristics

Sources: * Adapted from http://www.neurosense.co.uk/case_studies.html
** Burkitt 2009
*** Randall 2009

Though Lindstrom (in Sullivan, 2009) posits that neuromarketing research can reveal only what is occurring in the brain, but cannot explain why it occurs, and Graham (2012) argues that the potential of neuromarketing effectiveness is limited because “we are not zombies when we shop, mindlessly and unknowingly putting brands in our baskets and stumbling to the checkout in a fog” (p. 288), these positions do not negate the possibility that behavior manipulation may be possible in ways previously thought not plausible.

Consumers may not be as enthusiastic about neuromarketing as companies who use neuromarketing and their agreeableness may vary depending on consumers’ understanding of how and why companies use neuromarketing. Consumers may feel manipulated and consequently may have a negative reaction towards the company using this technique. This plausible reaction appears to be similar to the one that subliminal advertising provoked after James Vicary proposed it to be effective in the 1950’s (Sutherland, 2004). However, according to Synodions (1988) the controversy over whether subliminal stimulation is effective remains and is now joined by a new controversy created by neuromarketing. The relevance of this topic is further illustrated by the Marketing Science Institute’s 2012-2014 research priorities inclusion of how the judgment of actions taken by organizations impact trust building (MSI 2012).

The potential of using neuroscience for the aforementioned marketing purposes has created multiple ethical concerns for academics, practitioners, and consumers (Wilson, Gaines, and Hill, 2008). Additionally, the effects of these concerns pose potential issues for nonprofit (NPO) and for-profit organizations. These issues may differ depending on the ethical perceptions of consumers in relation to how and why those organizations use neuromarketing-research-derived marketing practices. Considering the necessity of NPOs to depend on public good will to acquire the resources to operate, any perception of impropriety can have a detrimental effect on NPO funding (Kildow, 2005). It is plausible that understanding the implications of the use of marketing practices such as neuromarketing may be more critical for NPOs than for profit organizations though the implications for both are significant.

The distinction between what is considered ethical and unethical by consumers, the subjects of neuromarketing’s potential influence, must be better understood and may have the potential to guide the use of neuromarketing in the future. Understanding the implications of the use of neuromarketing has the potential to do the same. Therefore, we propose the following research questions: (1) what are consumers’ perceptions of the ethicalness of the use of neuromarketing by profit and nonprofit organizations, and (2) What are the implications of the use of neuromarketing for profit and nonprofit organizations on purchase intentions, word-of-mouth, and attitudes towards neuromarketing?

LITERATURE REVIEW

Neuromarketing

Scanning human brains to investigate how certain parts of the brain respond to specific stimuli is not a new phenomenon. The use of such imaging technology in the field of neuroscience has occurred for several years (Barkin, 2013). However, these techniques were commonly used only for medical purposes. The “fusion” of neuropsychological methods and marketing science traces back to the beginning of the 21st century when neuroscience and economic perspectives were combined to form what is referred to as neuroeconomics (Garza and Saad, 2008).

In 2003 a group of researchers, intrigued by the Coke versus Pepsi challenge campaign in the 1970's, decided to conduct a similar study using a different research method. The researchers did this because they were perplexed by the Coke versus Pepsi phenomenon where, when blind tested, participants preferred the taste of Pepsi yet still bought Coke instead. Thus, the scientists wanted to explore why people bought products that were not necessarily those they preferred on the basis of taste (McClure, Tomlin, Cypert, Montague, and Montague, 2004). In order to address this research question the researchers studied brain responses in an experimental environment. To do this they used functional magnetic resonance imaging (fMRI) to observe the brain activity while participants were exposed to two different conditions: one in which participants did not know which brand of soda they consumed and another in which they were aware of the brand. The fMRI machine tracked brain blood flow while people performed these tasks. When performing these tasks in response to certain stimuli specific regions of the brain 'light up'. The results of the McClure et al. (2004) study suggested that when not knowing what brand of soda they were drinking half of the participants preferred Pepsi. Once participants knew what they were drinking almost three-quarters of the participants preferred Coke. Though similar to the findings pertaining to the original Coke versus Pepsi challenge, the intriguing aspect of the new study was being able to observe brain activity while consumers participated in the study.

As a part of their study McClure et al. (2004) found that two different systems cause the generation of preference. When participants did not know what they were drinking (sensory information only) the activity in the part of the brain called vetromedical prefrontal cortex predicted their preferences. However, when participants knew what they were drinking many of them altered their decisions. During this part of the study the brain activity that was more prominent occurred in the hippocampus, dorsolateral prefrontal cortex, and the midbrain. According to McClure et al. (2004) these areas of the brain have been found to be connected to emotion and affect (McClure et al., 2004), which suggests that previous brand knowledge affects decision making even when the taste may not be the one consumers actually prefer in blind tests.

Ethical Concerns in Neuromarketing

The study by McClure et al. (2004) helped to make neuromarketing a new field of research while also raising significant concerns related to, amongst other aspects, the ethical implications of such technology use for research. Some researchers and practitioners gladly accepted the new field (Garcia and Saad, 2008; Perrachione and Perrachione, 2008; Lindstrom, 2009), but others, including the general media, criticized the phenomenon (Thompson, 2003; Blakeslee, 2004; Arussy, 2009). Commercial Alert, a nonprofit agency formed by Ralph Nader, proclaimed that neuromarketing was unethical and requested that the U.S. senate investigate the phenomenon (Sutherland, 2004).

Specifically for neuromarketing, two major ethical concerns are the invasion of privacy and, relatedly, the potential for mind control (Thompson, 2003; Lindstrom, 2009). The issue of the invasion of privacy in marketing was discussed during the debate on the effectiveness of subliminal advertising. Many authors were concerned about whether the effects of subliminal advertising invade consumers' subconscious minds and ultimately alter their purchase decisions (Kelly, 1979). The main issue was that by communicating a subliminal message a person's behavior would change without the person being aware of the message's influence. While conspicuously influencing people's behavior might be considered ethical, doing so using covert measures is considered by some as unethical (Gratz, 1984; Hyman and Tansey, 1990). There is a similar concern applicable to neuromarketing. The major concern advocated by critics is that by scanning consumer brains and possibly discovering a 'super-effective' communication technique, corporations will be able to 'push the buy button' in a consumer's brain thereby being able to easily manipulate consumers' behavior. The morality of such an act is regarded as questionable and therefore needs to follow a strict code of ethics in order to prevent such immorality from transpiring (Murphy, Illes, and Reiner, 2008; Wilson et al. 2008). As a result of this possibility, Murphy et al. (2008) state that there is need to protect various parties that can be harmed or exploited by the research and to protect consumer autonomy in the event that neuromarketing becomes highly effective.

Despite positive acclamations on one side and criticisms on the other, some researchers do not believe that neuromarketing is as powerful as is sometimes suggested. Fleming (2006) explained in an interview that "neuromarketing is a concept based on fact plus a lot of assumptions – and surrounded by little fear", and that "it runs the risk of being perceived as a sham science." Kenning (2008) posits that even if fMRI use in marketing research helps us to better understand consumer behavior, the understanding itself is still not particularly definite, but rather rough and preliminary. Kenning (2008) also argues that neuromarketing does not allow us to read consumers' minds, that researchers should avoid oversimplification, and that a "buy button" does not exist in our brains. Despite the various criticisms neuromarketing has continued to evolve as a field of scientific inquiry and practice. Neuromarketing is an emerging topic of research in the academic field as made evident by special editions of the Journal of Consumer Behavior in 2008 and a special edition issue of DerMarkt in 2010. Neuromarketing is also popular among corporations which is illustrated by the fact that 13 of the top 100 brands in the U.S. are now using neuromarketing for strategy development (Sullivan 2009) and the growing number of neuromarketing research firms (McDowell and Dick 2013).

ETHICS AND NEUROMARKETING

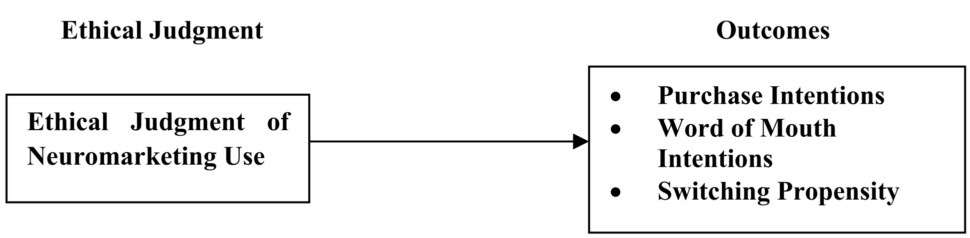
Conceptual Framework

To better understand potential ethical dilemmas that can derive from the use of neuromarketing and the implications of those ethical judgments it is necessary to understand those instances when the dilemma is manifest. To guide this process the authors turn to normative theories of ethics. According to Shaw (2008) normative theories of ethics help distinguish right from wrong. Deontological and teleological moral philosophy theories of ethics represent two major perspectives included in normative theories of ethics (Hunt and Vitell, 1986). The deontological perspective emphasizes action that is based on an obligation or moral duty to do what is considered to be morally right when seeking a specific outcome whereas the teleological perspective emphasizes the consequences of an action as the basis upon which to determine the 'rightness' or 'wrongness' of an action (Hunt and Vitell, 1986; Hunt and Vasquez-Parraga, 1993). The empirical corroboration substantiating these two perspectives supports their use to measure ethical judgment and the resulting intended behaviors from an ethics viewpoint (See Hunt and Vitell, 1986; Hunt and Vasquez-Parraga, 1993; Flores and Vasquez-Parraga, 2009).

Ethical Dilemmas

Ethical dilemmas arise when a situation involves a deontologically moral act that results in a negative consequence or when a teleologically right act involves an immoral action in order to produce a positive consequence. Both perspectives are usually taken into consideration in decision making and impact perceptions of the ethicalness of actions and what response those actions can incite. The development and use of a new tool or method such as neuromarketing can lead to ethical dilemmas. Thus, as Murphy et al. (2008) suggest, moral standards need to continue to be developed and followed when using new tools or methods. In this research, it is the perceptions of the ethicalness of the use of neuromarketing by NPOs and for profit organizations, and the implications of those perceptions, that can assist in the development of moral standards that can guide the use of neuromarketing. The capacity to measure ethical perceptions of the use of neuromarketing by profit and NPOs and the implications of those perceptions is enabled by the application of the Hunt-Vitell (1986) ethics model in this context. It is this measurement that helps address the two research questions being explored in this study. Thus, it is expected that consumers' ethical judgment of the use of neuromarketing by profit and NPOs will impact their purchase intentions, attitudes towards the use of neuromarketing, word-of-mouth behaviors, and switching propensity (see Figure 1).

Figure 1 – Neuromarketing use ethical judgment and its impact on consumer outcomes



METHOD

Research Design

A 2 (profit/nonprofit) x 2 (neuromarketing use/no use) between-subject scenario based experimental design was utilized to explore consumers' ethical judgments of the use of neuromarketing by organizations and the implications of those judgments. This method allows for a more precise operationalization of manipulations, control over potentially unmanageable variables, and reduces the duration over which these events would otherwise potentially occur (Bitner et al., 1990). Each scenario included an ethical dilemma based on the Hunt-Vitell (1986) ethics model. The ethical dilemma is based on the use or decision to not use neuromarketing for improving responses to marketing tactics. Thus, the neuromarketing use/no use aspect was manipulated by describing a situation in which the for-profit or NPO used neuromarketing driven marketing tactics or had the opportunity to use them, but chose to not use the neuromarketing based approach. The profit/nonprofit aspect was manipulated by describing an organization that was either a NPO or a for-profit organization. The context of the scenarios involved a beer brewery targeting college students as the for-profit organization and a NPO focused on decreasing the rate of alcohol abuse and addiction amongst college students. This context increases the relevancy of the scenario setting to the intended study subjects.

Data Collection and Procedure

A sample of 324 responses was collected from a southern U.S. university. Approximately 58% of respondents were male and 42% were female while about 89% were 19-30 years old. Data collection took place in a classroom setting where respondents were informed of the nature of the experiment. After the explanation each subject was randomly assigned to read one of the four conditions (profit or non-profit and neuromarketing use or non-use), then each subject answered the questions from the structured instrument. The total duration of the experiment was about 10-12 minutes. The group sizes for each of the four conditions are as follows: NPO/neuromarketing Use = 76; NPO/No neuromarketing Use = 85; For-Profit/neuromarketing Use = 84; For-Profit/No neuromarketing Use = 79.

Measurement

Using the method employed by Hunt and Vasquez-Parraga (1993) and Flores and Vasquez-Parraga (2009), ethical judgment of the use of neuromarketing was measured using a 7 point scale (1-Very Unethical to 7-Very Ethical). All remaining scales utilized a 7 point likert scale (1-Strongly Disagree to 7-Strongly Agree) for measurement purposes. A one item scale adapted from Dabholkar and Bagozzi (2002) was utilized to measure the degree to which respondents considered their assigned scenario to be realistic. Two manipulation checks were included to determine whether respondents understood that either a for-profit or NPO was the subject in their assigned scenario and that the organization did or did not use neuromarketing. Three scales were developed to capture attitudes towards the use of neuromarketing, perceptions of whether neuromarketing invades individual privacy, and perceptions of whether neuromarketing influences behavior. To assess behavioral intentions respondents were instructed to read a corresponding set of actions in response to the scenario they read and asked to indicate the single action they considered most appropriate. The 7 responses were adapted from Hunt and Vasquez-Parraga (1993) and Flores and Vasquez-Parraga (2009) and include the following:

a. Speak positively about (fictitious name) and buy their product/donate money to support their cause.
b. Speak positively to others about (fictitious name).
c. Buy/donate money to (fictitious name) products/to support their cause.
d. Take no action at all
e. Refuse to buy/donate money to (fictitious name).
f. Speak negatively about (fictitious name)
g. Speak negatively about (fictitious name) and recommend not buying their products/donating to their cause.

The implications of the use, or lack thereof, of neuromarketing was captured by a word-of-mouth scale and switching propensity scale adapted from Sweeney and Swait (2008). Finally, demographic characteristics of respondents were also collected.

RESULTS

Manipulation and Realism Checks

All respondents in the sample correctly indicated the type of organization and whether neuromarketing was utilized according to their assigned scenario. The realism check showed that respondents perceived the scenarios they read to depict realistic situations with a 5.27 rating. For comparative purposes, Dabholkar and Bagozzi (2002) utilized an experimental design and described the realism check rating of 5.8 for the scenarios as an indication that the scenarios were considered highly realistic.

Ethical Judgment

The results suggest that whether an organization is for-profit or a NPO has an impact on the ethical judgment of neuromarketing use. Specifically, the use of neuromarketing by a for-profit organization was perceived to be unethical (mean = 3.52) whereas the decision to forgo its use for marketing purposes was perceived as an ethical action (mean = 5.23). Interestingly, respondents were somewhat unclear about the ethicalness of an NPO deciding to use or not use neuromarketing (use mean = 4.51; no use mean = 4.66), but the results indicate an inclination to consider the use or non-use of neuromarketing by NPOs as ethical. Most of the differences in ethical judgment were significant, $F(3, 314)=21.723$, $p<0.001$, which includes the mean score differences between the for-profit and NPO neuromarketing use (3.52, 4.51) as well as non-use groups (5.23, 4.66), and the for-profit use and non-use groups (3.52, 5.23).

Implications of the Use or Non-Use of Neuromarketing

To assess the statistical adequacy of the scales utilized in this study, factor analysis was conducted to assess the measures developed for this study as well as those adapted from previous research. This analysis resulted in the switching propensity factor being eliminated from the analysis due to statistical inadequacy; the results reported pertain to all remaining factors.

The data was deemed suitable for analysis on the basis of the Kaiser-Meyer-Olkin (KMO) measure (.888) and Bartlett's test of sphericity ($p<.001$) (Hair et al. 2010; Pallant 2010). Table 2 illustrates all factor loadings. Each factor was deemed suitable for analysis purposes because all standardized factor loadings were above .5, each factor exhibited a variance extracted level above .5, and reliability scores were above .7 (Hair et al. 2010).

Table 2: Construct Reliabilities and Item Loadings

Construct/Items	Reliability/Item Loadings
Attitudes Towards Neuromarketing	**.907**
Neuromarketing is a good practice for organizations to use	.85
An organization's use of neuromarketing is good for consumers	.79
Neuromarketing is a practice I would advise organizations to use	.92
Neuromarketing should be used if an organization can afford to pay for its use	.82
Word of Mouth	**.892**
I would say positive things about organizations that use neuromarketing	.80
I would recommend organizations that use neuromarketing to others	.96
I would encourage friends and relatives to purchase from/donate to organizations that use neuromarketing	.82
Privacy Invasion -- I believe that neuromarketing:	**.793**
Invades my privacy	.68
Allows organizations to know what I am thinking	.64
Diminishes my ability to maintain privacy for thoughts I want to be kept private	.94
Behavior Manipulation -- I believe that neuromarketing:	**.812**
Can influence my behavior	.60
Can make me purchase from/donate to organizations that I otherwise would not	.88
Can make me purchase more/donate more than I otherwise would	.84

Regression analyses were conducted to determine the influence of the ethical judgment of the use of neuromarketing or lack thereof. Although several of the regression analyses indicate relatively low explanatory power for some of the relationships, the design of this study is only intended to explore the impact of the ethical judgment of neuromarketing use or non-use rather than to seek a high degree of explained variance. As the results in Table 3 show, ethical judgment has a significant effect on what respondents consider the most appropriate response to the use or non-use of neuromarketing, attitudes towards the use of neuromarketing, and word-of-mouth.

Group Analysis

An analysis of the 4 groups' responses to what was considered the most appropriate response to the use or non-use of neuromarketing by for-profit or NPOs revealed multiple

Table 3: The Relationship between Ethical Judgment and the Associated Implications			
	Most appropriate response to use/non-use of neuromarketing	Attitudes towards the use/non-use of neuromarketing	Word-of-Mouth
Ethical Judgment	.243*	.266*	.185*
*Significant at p < .001			

interesting differences. Specifically, as Table 4 illustrates, a stark contrast emerged on the basis of whether a for-profit or NPO faced the decision to use or not use neuromarketing. For the for-profit groups, the decision to use neuromarketing resulted in 60.7% of respondents responding favorably (any response, a-c), 20.2% being neutral (response d), and 19.1% responding unfavorably (any response, e-f). The responses were comparatively more favorable when the for-profit organization decided to not use neuromarketing (67.1%, 22.8%, and 10.1%, respectively). However, the opposite effect occurred for NPOs. NPOs that chose to use neuromarketing received a more favorable response (84.2%, 6.6%, and 9.2%, respectively) than when deciding to not use neuromarketing (68.7%, 11.8%, and 23.6%, respectively).

Table 4: Most Appropriate Consumer Response to Decision to Use or Not Use Neuromarketing				
Organization Type/Neuromarketing Use	**Non-Profit Yes**	**Non-Profit No**	**For-Profit Yes**	**For-Profit No**
Response				
Favorable	84.2%	68.7%	60.7%	67.1%
Neutral	6.6%	11.8%	20.2%	22.8%
Unfavorable	9.2%	23.6%	19.1%	10.1%

Additional analysis illustrated that there were no significant differences between groups when assessing each group's perceptions of whether neuromarketing invades individuals' privacy or can lead to an increased capacity to manipulate behavior. Overall, respondents mean scores for each respective three-item scale pertaining to the potential for privacy invasion (mean=14.56) and behavior manipulation (mean=13.74) revealed a moderate degree of agreement that neuromarketing may enable each aspect.

DISCUSSION AND IMPLICATIONS

This study is the first to explore the perceived ethicalness of the use of neuromarketing by organizations and the implications of those perceptions. The ethicalness of the practice of neuromarketing has been criticized by many groups (see Thompson, 2003; Blakeslee, 2004; Sutherland, 2004; Arussy, 2009; Lindstrom, 2009). Two of the most common criticisms are that it may allow for the invasion of the privacy of individual thought processes in response to specific stimuli and that it may allow for a heightened degree of behavior manipulation. Though current studies remain inconclusive regarding the extent to which neuromarketing may or may not allow for behavior manipulation, what is known is that organizations are using neuromarketing in an attempt to enhance marketing outcomes. Thus, understanding the implications of the perceptions of neuromarketing use may help guide the practice of neuromarketing as it evolves. This guidance is critical for both for-profit and NPOs and the findings of this study reveal interesting differences not only in the ethical perceptions of the use of neuromarketing, but also the implications of those perceptions depending on whether a for-profit or NPO utilizes neuromarketing.

Specifically, this study found that the use of neuromarketing by for-profit organizations was perceived to be unethical while forgoing the use of neuromarketing was considered an ethical act. However, for NPOs the decision to use neuromarketing was considered ethical and, though still considered ethical, the decision to forgo the use of neuromarketing was considered comparatively less ethical for NPOs relative to for-profit organizations. These perceptions of the ethicalness of the use of neuromarketing resulted in different outcomes for for-profit and NPOs. For-profit organizations received a comparatively more positive response in terms of what was considered an appropriate response by consumers when the organization did not use neuromarketing. The for-profit organization that used marketing received a less favorable response though it was still positive overall. However, the converse resulted for NPOs. For NPOs, the decision to use neuromarketing was deemed to result in an overwhelmingly positive response. Though still overall positive, the decision to forgo the use of neuromarketing by NPOs received a comparatively less favorable response and the least favorable response overall.

Cohen's and Dienhart's (2013) moral conception of trust provides a basis from which to interpret these disparate findings for for-profit and NPOs. The moral conception of trust posits that when A trusts B to be responsible for a particular action, and B accepts the responsibility to execute that action, B is now obligated to carry out the action. In this context, A is seeking a moral relationship within which the trust-responsibility acceptance aspect results in a moral effect. The NPO utilized in the scenario descriptions for this study operated for the purpose of seeking to reduce alcohol abuse and addiction. Conversely, the for-profit organization sought solely to increase beer sales. In this context it may be argued that the purpose driving each type of organizations actions creates a different degree of implied trust because NPOs are often considered more trustworthy than for-profit organizations (see Hansmann, 1981; Schlesinger et al., 2004). Thus, the differing results regarding what is considered an appropriate reaction for NPOs compared to for-profit organizations may be a result of a stronger feeling of trust for NPO activities relative to for-profit organizations. As a result, it is possible that the strongly favorable response for NPOs use of neuromarketing and the relatively strong unfavorable response for the non-use of neuromarketing occur because there is a perceived implicit obligation for NPOs to achieve their mission for public good. Accordingly, then, this perceived implicit obligation derives from the public seeking a moral effect type relationship with the NPO which the NPO accepts when they take action. If the NPO does not act then they violate this relationship. This relationship does not necessarily occur in the same manner with for-profit organizations likely because of the less favorable perception of organizations that operate with a primarily profit driven motive. The results of this study lend support to this preliminary position.

Important managerial implications can be drawn from these results that differ depending on whether a for-profit or NPO is involved. For-profit firms that decide to use neuromarketing risk creating an unfavorable response which includes refusals to purchase from a firm, speaking negatively about a firm, or a combination of both. Conversely, the decision to use neuromarketing by NPOs leads to a strongly favorable response which includes donating funds, speaking positively about the NPO, or some combination of both. Additionally, NPOs face a more unfavorable response if it chooses to not use neuromarketing than a for-profit firm that does use neuromarketing. In the case of NPOs it seems that educating donors and potential donors of the use of neuromarketing may produce more support for the NPOs mission.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Although this study provides insight into the ethical perceptions of neuromarketing use and the implications of those perceptions, multiple limitations do exist. First, because our findings were obtained from a single study the findings need additional support for the purpose of generalizing the findings to consumers in general. Second, none of the four experimental scenarios explicitly stated an outcome. Rather, neuromarketing was only included as a potential option for the organization with the promise, but not guarantee, of improved advertising effectiveness. Thus, it is possible that a scenario which includes an explicit outcome may alter responses. Finally, only the NPO and for-profit distinction was utilized as a treatment. However, other factors such as perceived trustworthiness of specific organizations, industries, or the level of understanding of neuromarketing may also impact the evaluations and implications of neuromarketing use.

Multiple future research possibilities are present in this line of research. Additional research is needed to better understand the divergent outcomes when the treatment is NPOs or for-profit organizations. In this case whether people trust NPOs more than for-profits and whether the moral conception of trust argument is corroborated can be assessed. Other research can further examine the relationship between relevant organizational outcomes such as future behavioral intentions and the degree to which respondents believe neuromarketing invades individual's privacy and manipulates behavior. Finally, as the capabilities of neuromarketing become better understood overtime these specific capabilities can be utilized to explore how they impact consumer assessments of the use of neuromarketing.

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APPENDIX A

SCENARIOS

NPO that chose to not use neuromarketing

Stop the Abuse, a large not-for-profit organization whose mission is to reduce the rate of alcohol abuse and alcohol addiction amongst college students, wants to increase the effectiveness of their advertising. Stop the Abuse uses advertising to increase awareness of the problem of alcohol abuse and addiction amongst college students. They also use advertisements in an effort to persuade college students to drink alcohol in moderation or not drink alcohol at all.

Stop the Abuse hired a business consultant who informed the organization about a new marketing technique called neuromarketing which can help improve the effectiveness of their advertising. Neuromarketing has the potential to allow advertisers to better understand how to influence people's decisions compared to traditional methods. However, in order to be able to have this type of influence on people, neuromarketing must utilize brain-scanning technology that allows advertisers to effectively "see" an individual's brain activity in response to different advertisements. Some people have referred to being able to see a consumer's brain activity as being able to read their thoughts. This information then allows advertisers to more accurately determine what type of advertising increases the likelihood of college students being influenced to stop drinking alcohol excessively and/or to stop drinking alcohol completely.

Despite what Stop the Abuse knows about the use of neuromarketing, the organization's management team decides that they should not use neuromarketing to develop a new advertising campaign. Thus, the organization decides to launch a new advertising campaign that is developed using traditional methods.

The other iteration of this scenario included in the random sample of questionnaires included:

- A NPO that chose to use neuromarketing

For-profit organization that chose to use neuromarketing

Sudz, a beer brewery, needs to increase its beer sales to college students. A business consultant has informed them of a new marketing technique called neuromarketing that can help increase sales. Neuromarketing has the potential to allow advertisers to better understand how to influence purchase decisions compared to traditional methods. However, in order to be able to have this type of influence on consumers, neuromarketing must utilize brain-scanning technology that allows advertisers to effectively "see" an individual's brain activity in response to different advertisements. Some people have referred to being able to see a consumer's brain activity as being able to read their thoughts. This information then allows advertisers to more accurately determine what type of advertising increases the likelihood of a consumer being influenced to purchase a particular product.

With this information, Sudz decides that they will use neuromarketing to develop a new advertising campaign. This decision means Sudz will also end their previous advertising campaign that was developed using traditional methods.

The other iteration of this scenario included in the random sample of questionnaires included:

- A for-profit organization that chose to not use neuromarketing

THE BENEFITS OF SUSTAINABILITY AND INTEGRATED REPORTING: AN INVESTIGATION OF ACCOUNTING MAJORS' PERCEPTIONS

Marianne L. James, California State University, Los Angeles

ABSTRACT

Companies of all sizes embrace sustainability in an effort to preserve resources for future generations while continuing to create value for current generations. Even though companies tend to publicize their sustainable efforts in promotional materials, in the U.S. and many other nations, formal reporting is generally not required and relatively few companies issue sustainability reports. This is beginning to change. Investor demand for comparable, relevant, and reliable sustainability information and the continuing development of global reporting guidelines motivate and support this trend. Currently, most companies that report on sustainability publish stand-alone reports. However, a trend toward integrating sustainability reporting with financial results is emerging and is supported by the International Integrated Reporting Council's (IIRC) efforts to develop a global integrated reporting framework. Both stand-alone and integrated sustainability reporting require the involvement of accounting professionals. Accounting majors, many of whom have grown up in an environment that strongly values ecologically, ethically, and socially responsible corporate behavior, represent the future accounting professionals.

This study investigates accounting majors' perceptions regarding sustainability and integrated reporting and focuses on the perceived benefits to multiple stakeholders, the scope and type of information companies should report, the reporting time frame, and the need for globally accepted reporting standards. The study finds that overall, accounting majors tend to support sustainability reporting of multiple performance indicators relating to environment and safety, employees and community, and corporate governance both in terms of current year and comparative information. Students tend to perceive sustainability reporting as more beneficial to large than to small and midsize companies. Students also tend to believe that high-quality sustainability reporting standards, mandatory reporting, and the adoption of an integrated reporting format will enhance annual reporting. The results from this study provide important insights into the perceptions of future accounting professionals, whose support will be necessary to assist companies in reporting useful comparable information about their comprehensive impact on people, the environment, as well as profit.

INTRODUCTION

During the past decade, a continually increasing number of entities have started formal reporting of their sustainability-related activities. These reports commonly are referred to as sustainability, sustainable development, corporate social responsibility (CSR), or environmental, social, and governance (ESG) reports. While some reports focus primarily on a company's environmental impact (sometimes referred to as "green reporting"), most sustainability reports also focus on social and corporate governance issues. Stakeholder demand for sustainability-related information, not regulatory requirements, appears to motivate this reporting trend.

The majority of companies that currently issue sustainability reports follow the guidelines provided by the Global Reporting Initiative (GRI), which allows for a choice among three reporting levels that differ with respect to the types of issues and the number of parameters – referred to as performance indicators - that must be reported. The GRI guidelines continue to evolve and the 4th generation of the guidelines was recently released (GRI, 2013). Although GRI guidelines can be applied globally across many different industries, other guidelines, some applicable to specific nations/regions or industries, exist as well. This makes inter-company comparability difficult.

Currently, most companies that formally report their sustainability activities issue stand-alone reports that are not integrated with their annual financial or 10-K statements. However, a movement toward combining sustainability reporting with companies' financial results is gaining momentum; this is referred to as "Integrated Reporting" (IR). Some companies, such as Nova Nordisk, Sony, and Hyundai Engineering, already issue integrated report. This movement is supported by the International Integrated Reporting Council's (IIRC) efforts to develop a globally applicable IR framework.

Sustainability and especially integrated reporting can be very useful to external stakeholders such as investors and customers, but it can also be extremely beneficial to internal users by enhancing the company's ability to effectively and efficiently achieve long-run goals. Relevant, reliable, comparable, and thus useful sustainability and integrated reporting require commitment by an organization's key personnel and by those responsible for the reporting process. While companies tend to rely on accounting professionals to support their sustainability reporting function, IR requires even stronger support from accounting professionals. Accounting professionals are more likely to be supportive if they understand the long-term benefits of high-quality and comparable sustainability and integrated reporting and believe that reporting sustainability information is important. In addition, consensus is necessary regarding the scope, type, and comprehensiveness of the information that will be beneficial to stakeholders to enable them to assess a company's comprehensive impact on the environment and on people and not just profit.

Accounting majors represent the future accounting professionals. Many of the current accounting majors have grown up in an environment that strongly values ecologically, ethically, and socially responsible corporate behavior. Their support is necessary to help continue to motivate the trend toward sustainability and integrated reporting and lead to a future in which organizations routinely report their comprehensive performance and their impact on profit, people and planet, also referred to as the "Triple Bottom Line."

This study investigates accounting majors' perceptions regarding sustainability and integrated reporting. The study focuses on the perceived benefits to multiple stakeholders, the expected scope and type of issues reported, the reporting time frame, and the need for high-quality global sustainability and integrated reporting standards.

The study finds that overall students majoring in accounting tend to support both sustainability and integrated reporting. In fact, assuming that a high-quality framework for integrated reporting is developed, the vast majority of the students participating in the study felt that companies should issue integrated, instead of stand-alone, reports and that this would enhance the value and comparability of annual reporting. The students also tended to perceive that reporting of multiple performance indicators relating to environment and safety, employees and community, and corporate governance both in terms of current year and comparative year information is important. Students tended to perceive that sustainability and integrated reporting were more beneficial for large than for small and midsize companies. This study provides important insights into the perception of future accounting professionals, whose support will tend to be critical to the success and usefulness of comprehensive and unbiased sustainability and integrated reporting.

BACKGROUND LITEREATURE

Sustainability-related concerns represent a global issue of long-standing nature. In 1987, the World Commission on Environment and Development (also referred to as the Brundtland Commission), formally defined sustainability development as a "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987, 37).

As the world population increases and the availability of natural resources decreases, concern for the preservation of resources accelerates. For example, according to the World Resource Institute, during the past decade, water use has increased twice as fast as the world population (World Resource Institute, 2011). To help alleviate the long-term global consequences associated with resource shortages, organizations of all types and sizes have embraced actions that help maximize value while minimizing their negative impact on the environment, the availability of natural resources, and thus on society. For instance, many organizations have implemented sustainability-related programs that reduce waste and harmful emissions, conserve energy, reduce the use of scarce resources, improve employee health and wellbeing, and support community projects. In fact, global investment in new clean energy rose from $50 billion in 2004, to $260 billion in 2011 (Bloomberg, 2012).

Current Regulatory Environment – Sustainability Reporting

The need to preserve natural resources for future generations represents a globally critical issue. Governmental and non-governmental entities address the related issues to varying degrees through rules, regulations, and guidelines. In many countries, governmental units have implemented sustainability-related requirements and programs such as setting maximum emission levels, providing funding for environmentally and socially beneficial programs, and requiring that organizations report their activities and results to regulatory agencies. Legal and regulatory guidelines and requirements pertaining to formal reporting of sustainability-related activities vary considerably among nations and may be set by governmental or non-governmental organizations. Reporting requirements for nations that are part the European Union typically are based on laws. For example, the revised Danish Financial Statements Act mandates that all large companies disclose CSR information; this has led to a significant increase in sustainability reporting in Denmark (KPMG et al., 2013). In some countries, such as South Africa, sustainability reporting is mandated by stock-market regulators (KPMG et al., 2013).

In the U.S. and in many other nations, sustainability reporting is primarily voluntary and unregulated. While some laws exist that require sustainability-related disclosures, they tend to address only specific issues and/or pertain to particular industries. U.S.-based governmental and non-governmental entities that currently address some aspect of sustainability/CSR reporting include the U.S. Securities and Exchange Commission (SEC), U.S. Congress, the Environmental Protection Agency (EPA), and the Forum for Sustainable and Responsible Investment (US SIF).

U.S. Regulation – Sustainability Reporting

During the past few decades, the SEC issued several rules and interpretations that address disclosure of environmental issues. For example, in the 1971, the SEC issued an interpretative release that encouraged companies to disclose the financial impact of environmental laws. The release, however, did not mandate such disclosures until the 1980s and focused primarily on the financial aspect of an organization's impact on people, the environment and the community.

SEC Regulation S-K, which public companies that report to the SEC must comply with, requires disclosures relating to environmental rules and regulations. Specifically, section 101, "Description of Business*,*" states that: "Appropriate disclosure also shall be made as to the material effects that compliance with Federal, State and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries." (SEC, n.d. paragraph 229, item 101 (c) (1) (xii)). In addition, regulation S-K requires that SEC-reporting companies disclosure material environmentally-related legal actions (SEC, n.d., paragraph 229, item 103). Another SEC Rule that became effective for 2010 fiscal periods requires that companies disclose in their proxy statements information about risk management relating to the company's compensation and corporate governance (SEC, 2009). Thus, current SEC rules focus on disclosure of environmental-related expenditures, environmental-related risk such as litigation, and compensation and governance-related issues. Furthermore, SEC disclosure rules and regulations only pertain to SEC registered public companies.

Some rules and regulations pertain to specific industries. An important example is the Environmental Protection Agency's (EPA) requirement to disclose information about greenhouse gas emissions. The rule that was issued in 2009 and amended in 2011, applies to suppliers of fossil fuel and industrial gas, direct emitters of greenhouse gases, and manufacturers of heavy-duty and off-road engines and vehicles. Only companies that exceed certain emission thresholds must comply with these disclosure requirements and file annual reports with the EPA (EPA, 2011).

While rules and regulations pertaining to sustainability-related events are still evolving, currently effective rules and regulations tend to focus on financial aspects and on risk factors that may adversely affect companies' financial results. In addition, these rules and regulations are not generally applicable to the majority of business and governmental entities; some pertain to only public companies, and some pertain to certain types of industries.

This lack of general reporting requirement must be addressed by regulators and the accounting profession. Globally, significant progress has been made to develop frameworks and principles that companies can use to comprehensively disclose their impact on people, the environment, as well as profit.

Sustainability Reporting – Current Status

Concern about organizations' impact on the environment and on people encourages companies to implement and expand sustainability programs. Companies routinely publicize their sustainability efforts to customers and other stakeholder via their corporate websites, in promotional materials and other media, and typically are focusing on positive performance.

However, stakeholders increasingly expect that companies formally and comprehensively report on their sustainability efforts. According to Ernst & Young, one of the largest global accounting firms, "Shareholder proposals now call for sustainability reports from company suppliers, and ask for more disclosure on how companies are managing specific environmental and safety risks" (EY, 2012a). This appears to be a continuing and increasing trend. Analysis of shareholder-initiated proposals shows that in 2011 approximately 40% of the proposals related to environmental and social issues; this represents a significant increase over the 30% in 2010 that dealt with these issues (EY, 2012b). Ernst & Young expects that during 2013, sustainability reporting/enhanced reporting will be among the five most common shareholder-initiated proposals (EY, 2013).

The response by the investment community also supports the trend toward sustainability reporting. The Forum of Sustainable and Responsible Investment (referred to as the US SIF), reports that currently more than $3 trillion dollars are invested in sustainability and corporate responsibility funds (US SIF, 2012). Sustainability indices, such as the Dow Jones Sustainability Indices, which track sustainability leaders both globally and based on specific geographic regions, have been developed and are utilized by investors (Dow Jones Indices, n.d.).

Today, a continually increasing number of companies formally report on their sustainability efforts. While in the 1990, few companies issued sustainability reports, the number has grown to thousands of companies world-wide with 95% of the global 250 companies and 53% of the S&P 500 companies currently issuing sustainability reports (EY & Boston College Center for Corporate Citizenship, 2013). Furthermore, results of a recent survey by Ernst & Young and Boston College Center for Corporate Citizenship (2013) reveal that "transparency with stakeholders" represents the most important motivation for both large and smaller companies' to report on sustainability. In fact, nearly 80% of the large and 60% of the smaller companies that report on sustainability indicated that it was an important reason for reporting (EY & Boston College for Corporate Citizenship, 2013). Furthermore, a survey by KPMG, another leading global accounting firm, discovered that 83% of the large multinational U.S.-based companies and 100% of U.K. companies that responded to their survey currently issue sustainability reports (KPMG, 2011).

Thus, investor expectations and a willingness to provide capital to companies that embrace sustainability leads to an increasing demand for formal reporting on sustainability. Clearly sustainability reporting is necessary and expected by stakeholders, such as investors. Because currently formal reporting on sustainability is not generally required in the U.S. and in many other nations, the nature, extend and quality of the reporting varies considerably. This tends to make intercompany comparisons very difficult.

The Benefits and Importance of Sustainability Reporting

Companies that implement sustainability-related programs expect to derive significant benefits from their investments. For example, a survey co-sponsored by Ernst & Young and GreenBiz Group (2011), showed that of the 274 large companies that responded to their survey, 74% indicated that cutting costs and 68% indicated that shareholder expectations were among the factors determining their sustainability agenda during the next two years.

Commitment to sustainability reporting will likely depend on companies' perception that in the long-run, reporting will lead to tangible and/or intangible benefits that exceed reporting costs. Reporting of sustainability-related activities signals responsible behavior and may enhance stakeholders' perceptions of the company. This tends to lead to increased investor goodwill and willingness to provide capital and employee and customer loyalty. Furthermore, sustainability reporting may also affect a company's cost of capital. A recent study (Dhaliwal et al., 2011) suggests that high cost of capital companies that voluntarily start reporting about superior social responsibility programs tend to experience a decrease in their cost of capital.

Integrated Reporting

A rising awareness of the need to preserve resources for future generations and to assess companies' performance not only in terms of their bottom line but also their comprehensive impact on the environment and community, has led to an increased commitment to sustainability programs and a rising demand for formal reporting. However, most companies that report on their sustainability efforts currently issue stand-alone reports. This may change in the future. A trend toward combining sustainability and financial reporting is emerging; this is referred to as integrated reporting (IR).

Integrating sustainability projects within the entire organization, linking organizational strategies with sustainability projects, involving accounting professionals as well as key corporate decision makers at each stage, and reporting based on integrated information systems can lead to many advantages. IR will help investors and other external stakeholders understand the interrelationship between a company's financial performance and its impact on the environment and people. It also will enhance internal decision makers' understanding of the various functions and processes within their organization and the comprehensive and interrelated nature and effect of each. IR also may reduce long-run reporting costs.

Thus, in the long-run, collecting and analyzing information necessary for IR may lead to increased operational effectiveness and efficiency and long-term achievement of a company's mission and goals. An excellent example of highly successful sustainability linked strategies and value creation can be seen at BASF, one of the world's largest chemical companies. The company's integrated report clearly describes and links its own sustainable actions with its products and explains how these can help customers build value in an efficient, effective and sustainable manner (BASF, annual report 2012).

Sustainability and Integrated Reporting Standards

The usefulness of sustainability reporting depends on the scope, detail, and accuracy/reliability of the information provided. To be useful to investors and other stakeholders the information provided must not only be reliable, but also comparable. Comparability requires that companies follow uniform standards or guidelines that address format, structure, scope, and specific information content to be reported. To be useful to many stakeholders and to allow for meaningful comparison, standards for reporting sustainability-related efforts are necessary.

Organizations, such the Global Reporting Initiative (GRI), provide the basis for organizations reporting their sustainability efforts. Currently, approximately 63% of the S&P companies that publish sustainability reports are utilizing the guidelines developed by the GRI

(EY and Boston College for Corporate Citizenship, 2013). Most companies that utilize the GRI guidelines report under version 3.1. Three reporting levels are available (A, B, and C), with A requiring the highest level of reporting on the highest numbers of performance indicators. Most companies that file GRI reports currently utilize level "B" and few reports are audited; those that are audited may indicate a "plus" after the reporting level (e.g., "A+") (EY, 2012b).

The GRI guidelines continue to evolve; the fourth generation of the guidelines was recently completed (GRI, 2013). While the GRI guidelines currently are globally the most commonly used standards, other organizations are also working on reporting standards. In the U.S., the Sustainability Accounting Standards Board (SASB), a private sector not-for-profit entity, currently is developing industry-specific sustainability reporting guidelines that are intended to further enhance the relevance of reporting sustainability-related performance by organizations operating in 88 specific industries (SASB, n.d.).

Efforts to develop a global framework for integrated reporting are spearheaded by the Integrated Reporting Council (IIRC), which was established under the Prince of Wales' "Accounting for Sustainability Project" (Prince of Wales, 2013). Organizations, such as the American Institute of Certified Public Accountants (AICPA, 2013) are very supportive of the IIRC's efforts. On April 16, 2013, the IIRC issued its formal "Consultation Draft of the International <IR> Framework" (IIRC, 2013). Once finalized, the guidelines will support the emerging trend toward integrated reporting.

Accountants' Role and Ethical Considerations

Accounting professionals play a key role in helping organizations achieve their goals. Currently, accountants are significantly involved in areas such as managerial and cost accounting; internal and operational auditing; and external financial reporting. However, accounting professionals currently appear to be less involved with the implementation of sustainability projects. A study involving 178 corporate responsibility officers (Ballou et al., 2012) found that while accounting professionals rarely are involved in the integration of sustainability projects, their involvement was positively related to a "strategic integration" of sustainability projects. The authors assert that more involvement of accounting staff in sustainability initiatives likely would be beneficial for companies and their stakeholders (Ballou et al., 2012).

Accounting professionals, who are very knowledgeable about their company's reporting function as well as its financial and operational aspects, are able to contribute critical expertise to formal sustainability reporting. Accounting professionals must comply not only with laws and regulation, but also must behave in a manner that is consistent with a high level of integrity both in everyday life and in their professional capacity. Accounting professionals involved in the reporting process must make ethical decisions that include reporting financial information that is unbiased and faithfully represents the underlying economic events, without managing earnings even within the boundaries and requirements of Generally Accepted Accounting Principles (GAAP).

Ethical conduct represents the corner stone of the accounting profession; this is reflected in licensing and membership requirements for accountants. Most state boards of accountancy require that accounting professionals complete ethics courses or ethics exams as part of licensing and relicensing requirements and many professional accounting organizations, such as the AICPA and the IMA, require that their members complete ethics education annually and strictly comply with the organizations' professional (ethical) code of conduct.

Disclosing qualitative information and reporting on non-financial events and activities that in the long-run effect the environment, employees, and the community requires an attitude of high integrity. Thus, accounting professionals' involvement and support can be extremely important to help companies report information that is comprehensive, reliable, and unbiased.

Peter Bakker, president of the World Business Council for Sustainable Development, recently emphasized accountants' importance in terms of sustainability with his statement that "Accountants will save the world" (Bakker, 2013). He asserts that corporate reporting must provide information not only about return on financial capital, but also on social capital (Bakker, 2013). He views accountants in a lead role toward transparent reporting of a company's creation of value that includes its impact on environmental and social benefits (Bakker, 2013).

The issues that arise from the continuing sustainability and the emerging integrated reporting trends will affect companies and accounting professionals for many years. High-quality sustainability and especially integrated reporting require support of not only current but also future accounting professionals. Students majoring in accounting represent the future accounting professionals. During their careers, they likely will become involved with sustainability and integrated reporting and in turn affect its development and implementation. Their support and their commitment to reporting unbiased, comprehensive information are essential. Hence, accounting majors' perceptions regarding sustainability and integrated reporting are important.

METHODOLOGY

Research Instrument and Validity

The researcher developed a survey instrument that addressed current considerations and issues of concern to companies, their stakeholders, and standard setters with respect to sustainability and integrated reporting. The questionnaire consisted of three sections. A brief instructional/explanatory paragraph preceded each section. The terms "sustainability reporting" and "corporate social responsibility reporting" (CSR) were defined as synonyms and used interchangeably.

The first section addressed the overall benefits of voluntary sustainability/CSR reporting for companies and investors, the value of globally uniform reporting standards, and the need for mandatory reporting. For reasons of succinctness, the acronym "CSR" was utilizing in each statement. Study participants were asked to indicate their level of agreement with several statements that address the potential benefits of sustainability/CSR reporting. A 5-point Likert rating scale was used with "5" equal to strongly agree, "4" equal to agree, "3" equal to neutral, "2" equal to disagree, and "1" equal to strongly disagree.

The second section addressed the scope and level of sustainability reporting focusing on issues relating to (1) environment and safety, (2) employees and community, and (3) corporate governance, which represent areas of concern to a broad range of stakeholders and addresses issues on which many entities are currently reporting. Study participants were instructed to pretend that they were in charge of the reporting function for a well-established, moderately profitable public company that manufactures consumer products and has already implemented a series of sustainability-related programs such as recycling and investing in energy efficient equipment and renewable energy. The participants were reminded that reporting incurs costs. The study participants were asked to rate the importance of reporting on key performance indicators relating to each reporting area: (1) environment and safety, (2) employees and community, and (3) corporate governance. Each area included multiple aspects and differentiated between reporting the company's performance with respect to (a) the current reporting period and (b) changes over the prior years (i.e., trend data). The study participants were asked to rate the importance of reporting specific performance indicators using a 5-point Likert scale with "5" equal to very important, "4" equal to important, "3" equal to neutral, "2" equal to less important, and "1" equal to not at all important.

The third section addressed several aspects relating to integrated reporting with respect to the effect on the financial reporting process and its potential benefits for multiple stakeholders. Study participants were asked to indicate their level of agreement with each statement using a 5-point Likert scale, with "5" equal to strongly agree, "4" equal to agree, "3" equal to neutral, "2" equal to disagree, and "1" equal to strongly disagree. One question relating to whether companies should issue integrated reports required a "yes" or "no" response. Furthermore, an open-ended question was included that asked study participants to indicate what they perceived as "the most important benefit for companies that voluntarily issue sustainability reports." This question was placed in the third section on the reverse side of the questionnaire to encourage students to consider benefits other than those specifically referred to in the first section. The research instrument was piloted with several students to ensure the clarity of each question or statement and slightly adapted based on their feedback.

Sample Selection and Administration of Research Instrument

All accounting majors at a Western Region University must complete the Intermediate Accounting course sequence consisting of Intermediate Financial Accounting and Reporting I & II. The fundamental concepts and principles underlying financial accounting and reporting and the major financial statements and disclosures are discussed in Intermediate Financial Accounting and Reporting I. Class discussions in this course include not only financial reporting under U.S. GAAP, but also address significant differences between U.S. GAAP and International Financial Reporting Standards (IFRS). In addition, current significant reporting trends are briefly discussed during the Intermediate Accounting course sequence. Furthermore, ethical aspects of reporting are considered throughout the Intermediate Accounting course sequence with an emphasis on the importance of the highest level of ethical conduct.

During the Winter 2013 and Spring 2013 quarters, 55 students enrolled in Intermediate Accounting I and 60 students enrolled in Intermediate Accounting II completed the survey instrument. Participation in the survey was voluntary and students' responses were anonymous. The survey was administered during the last week of instruction in Intermediate I and the first week of instruction in Intermediate Accounting II. This timing helped ensure that the study participants possessed comparable levels of knowledge of financial accounting and reporting across the two courses. One-hundred fifteen students completed the survey resulting in 115 useable responses. Awareness and some knowledge of significant current and emerging reporting trends represents one of the learning objectives of both courses, thus administration of this survey, which addressed issues discussed in class, did not require IRB approval.

Prior to administering the survey, the researcher discussed current and emerging issues in financial reporting that are currently or will in the future significantly affect the accounting profession and thus accounting students' careers. Sustainability and integrated reporting represent one of the three major issues that were discussed during a class session; the other two issues were the status of the potential implementation of IFRS in the U.S. and the development of private company GAAP.

Demographics

The study participants were asked to indicate their major, academic standing, gender, and work status. Ninety-six percent of the students that completed the survey had declared accounting as their major, and 4% had declared accounting as their minor field of study. Three percent of the study participants were sophomores, 79% were juniors, 15% were seniors, and 3% were graduate students. Seventy-seven percent indicated that they currently worked and of those who worked, 38% worked in accounting-related positions. Forty-eight percent of the study participants were female and 52% were male.

Statistical Tests Utilized

Student responses to the survey were summarized and statistically evaluated using Microsoft Excel statistical tests. The researcher utilized matched sample t-tests to test hypotheses and to determine significant associations. Means and standard deviations were derived to report descriptive statistics. The results of the study were evaluated utilizing a 0.05 significance level.

HYPOTHESIS DEVELOPMENT

Financial reporting is covered in detail in the Intermediate Accounting course sequence. All accounting majors must complete a series of Intermediate Accounting courses, which in the U.S. typically focus on reporting by public corporations under U.S. GAAP. Increasingly, Intermediate Accounting courses also include some coverage of IFRS and discussions on emerging reporting trends. Most accounting majors are aware that many small and midsize companies are privately held and hence are not legally required to make their financial statements publicly available. Thus, accounting students' perceptions regarding the importance and benefits of voluntary formal sustainability reporting may differ with respect to large and small/midsize entities; specifically, students may perceive that sustainability reporting is more beneficial to large than to small and midsize companies. Thus, hypothesis H1 stated in alternative format is:

H1: Accounting majors are more likely to perceive that in the long-run voluntary sustainability reporting is beneficial to large than to small and midsize companies.

Students enrolled in Intermediate Accounting know that generally only public companies are required to issue publically available financial statements. Based on pre-survey class discussions, students are also aware that currently sustainability reporting is voluntary in the U.S. for both public and private companies. Thus, since private companies are not legally required to issue annual reports, students may be less likely to support a mandatory CSR reporting requirement for those companies. Thus, when considering the need for mandatory CSR reporting by U.S. companies, students may be more likely to perceive that sustainability reporting should be mandatory for public companies than for private companies. Thus, hypothesis H2 stated in alternative format is:

H2: Accounting majors are more likely to support mandatory sustainability reporting for public companies than for private companies.

Although U.S. GAAP currently does not require the presentation of comparative financial information, because of user expectations and SEC requirements, companies customarily present information for several comparative years. Accounting majors are aware of these facts. Hence, if accounting majors perceive that sustainability reporting of current year information is important, they may also perceive that reporting of trend-related information is important. Thus, hypothesis H3 stated in alternative format is:

H3: Accounting majors perceive reporting of sustainability-related information for current and comparative years as equally important.

EMPIRICAL RESULTS

This section presents the results of this study, including the results of testing Hypotheses H1, H2, and H3.

The Benefits of Sustainability Reporting

The study addresses the overall benefits of voluntary CSR/sustainability reporting for companies and investors and the need for mandatory reporting; focusing on current considerations and issues of concern to companies, their stakeholders, as well as standard setters. Support for sustainability reporting is closely linked with its perceived benefits. Thus, students were asked to rate their agreement with several statements that address the overall benefits of sustainability reporting for companies and investors. The students also were asked to indicate their level of agreement with two statements asserting that CSR reporting should be mandatory for (1) U.S. public companies and (2) U.S. private companies and to consider the benefits of globally accepted CSR reporting standards. Students' mean ratings and relate standard deviations are presented in Table 1.

Table 1
BENEFITS OF AND NEED FOR SUSTAINABILITY REPORTING

QUESTION/STATEMENT	MEAN RATINGS 5 = strongly agree	STANDARD DEVIATION
Investors benefit	4.06	0.87
Large companies benefit	4.29	0.80
Small and midsize companies benefit	3.83	0.98
Mandatory for public companies	4.12	1.03
Mandatory for private companies	3.65	1.11
Globally uniform CSR standards would enhance annual reporting	4.18	0.85

Thus, based on the results, students tended to perceive that in the long-run sustainability (CSR) reporting is beneficial for companies and for investors. Students also tended to agree that sustainability reporting should be mandatory for public companies and that globally uniform CSR reporting standards would enhance annual reporting. Some differences in students' perceptions between large and small/midsize companies and public and private companies were expected. Hypothesis H1 tests for differences in students' perceptions between large and small/midsize companies; hypothesis H2 tests for differences in students' perceptions with respect mandatory reporting requirements for public and private companies. These results are presented in the hypotheses testing section.

The Most Important Benefit of Sustainability Reporting

Students were asked to indicate what they perceived as the most important benefit of voluntary sustainability reporting by companies. Students' responses to this open-ended question were evaluated and grouped into five categories: (1) ethical and responsible behavior and enhanced awareness of commitment to environmental and social issues; (2) effect on reporting quality and comparability; (3) enhanced reputation; (4) improved internal operations, products and services; and (5) financial success, including increased investor base.

Based on these classifications, 44% of the students indicated that the most important benefit derived from voluntary sustainability reporting related to ethical and responsible behavior and awareness and commitment to the environment and wellbeing of the community/employees; 28% specifically mentioning environmental issues. Twenty-seven percent of the student perceived improved annual reporting and enhanced comparability between companies as the most important benefit of voluntary sustainability reporting. Eighteen percent of the students indicated that voluntary reporting would enhance a company's operations and products/services. Thirteen percent of the students identified financial success, profit, and increased investor base as the most important benefit and only 8% indicated that a company's enhanced reputation was the most important benefit of sustainability reporting. Since several students indicated more than one "most important" benefit, the sum of the percentages exceeds 100%. Thus, based on students' responses, it appears that accounting majors perceive ethical aspects and especially the positive effect on the environment and people as the most important benefits of sustainability reporting.

The Importance of Reporting Performance Indicators

Students were asked to rate the importance of their company reporting on key performance indicators relating to the environment and safety, employees and community, and corporate governance. (Information about the hypothetical company, which was included in the survey instrument, is provided in the methodology section). The study focused on performance indicators that are consistent with those identified by the GRI and are also commonly reported by companies. Students were asked to rate the importance of reporting information for each performance indicator in terms of (a) the current year and (b) changes over prior years (i.e., trend information). This is consistent with the GRI's guidance for using performance indicators (GRI, 2012). Statistical summary information is presented in tables 2, 3, and 4.

Environmental Performance Indictors

A company's impact on the environment and natural resources is of paramount importance to many stakeholders. Many consumers, investors, and employees expect companies to act responsibly and to preserve precious resources. In response to these expectations and for other reasons, such as a desire to act responsibly and expected cost savings, many companies have implemented extensive sustainability-related projects. This study focuses on environmental indicators relating to areas of common concern: water usage, energy efficiency, CO_2 emissions, waste management, recycling, investments in renewable energy, environmental incidents, and transportation-related incidents. Each indicator was presented twice, reflecting current year information as well as trend-related information. Statistical results relating students' perceptions of the importance of environmental performance indicators are presented in table 2. Hypothesis H3 tests for statistically significant differences in the perceptions between current year and comparative information; the results are presented in the hypotheses testing section.

Table 2
REPORTING ENVIRONMENTAL AND SAFETY PERFORMANCE INDICATORS

PERFORMANCE INDICATORS	MEAN (SD) CURRENT YEAR 5 = very important	MEAN (SD) CHANGE OVER COMPARATIVE YEARS 5 = very important
Water usage	4.19 (0.87)	4.32 (0.87)
CO_2 emissions	4.38 (0.84)	4.37 (0.94)
Energy efficiency (usage/sales revenue)	4.31 (0.72)	4.35 (0.79)
Waste management (tons generated)	4.23 (0.81)	4.17 (0.91)
Recycling (tons)	4.15 (0.83)	4.26 (0.89)
Investments in renewable energy	3.89 (0.99)	3.91 (1.05)
Environmental incidents (number)	4.07 (1.10)	4.00 (0.96)
Transportation incidents (number)	3.66 (1.04)	3.70 (1.04)

The mean ratings for the environmental and safety-related indicators were greater than "4," which is equivalent to "important," except for reporting of investments in renewable energy and transportation-related incidents. The mean ratings were highest with respect to reporting information about current year CO_2 emissions and changes in CO_2 emission compared to prior years. Thus, overall, students perceived that it is important for companies to report environmental-related performance indicators, especially with respect to CO_2 emissions, water use, energy efficiency, and recycling projects.

Paired-sample t-tests revealed statistically significant differences between students' perceptions of the importance of information relating to the company's CO_2 emissions and recycling, investments in renewable energy, transportation incidents, and environmental incidents (p-values < 0.05). No other significant differences between students' perceptions of the importance of reporting information about the company's environmental and safety performance indicators were found.

Employee and Community Performance Indicators

Most sustainability/CSR reports focus not only on the company's impact on the environment and natural resources, but also on its interactions with and effects on employees and the community in which it operates. This study focuses on employee-related performance indicators including the number of employees, employee training and development, employee turnover, coverage by health insurance and retirement plans, employee absentees, management composition, and employee injuries. Community-related performance indicators focus on donations to community projects and employee community engagement. Each indicator was presented twice, reflecting current year information as well as trend-related information. Statistical results regarding students' perceptions of the importance of employee and community related performance indicators are presented in table 3.

Table 3
REPORTING EMPLOYEE AND COMMUNITY PERFORMANCE INDICATORS

PERFORMANCE INDICATORS	MEAN (SD) CURRENT YEAR 5 = very important	MEAN (SD) CHANGE OVER COMPARATIVE YEARS 5 = very important
Number of employees	3.79 (1.05)	3.79 (1.00)
Employee training and development (hrs/employee)	3.85 (1.02)	3.81 (1.07)
Employee turn over	3.60 (1.03)	3.52 (1.00)
Percentage with health insurance	3.90 (0.95)	3.86 (0.95)
Percentage with retirement plans	3.72 (1.12)	3.68 (1.15)
Absentees per employee	3.19 (1.17)	3.22 (1.17)
Management composition – ethnicity, age, gender	3.01 (1.23)	3.12 (1.23)
Injuries (total number per 100 employees)	4.05 (0.97)	4.05 (0.98)
Donations to community projects	3.68 (0.96)	3.59 (0.99)
Donations – total service hours	3.45 (1.04)	3.43 (1.11)

Students' mean ratings regarding the importance of reporting employee-related information were highest with respect to current year employee injury rates and lowest with respect to the current year composition of management in terms of age, gender and ethnicity. Overall, students perceived reporting of employee and community related performance indicators as somewhat below important with respect to all employee and community related performance indicators except for information about employee related injuries.

Corporate Governance Performance Indicators

Corporate governance represents one of the key areas on which companies focus in their sustainability reports. Corporate governance also represents one of the major reporting categories under the current GRI guidelines (GRI, 2012), which are utilized by the majority of sustainability reporting companies. This study focuses on corporate governance related performance indicators in terms of changes to the corporate governance structure, code of ethics violations, executive compensation, stakeholder communications, and vendor audits. Each indicator was presented twice, reflecting current year information as well as trend-related information. Statistical results regarding students' perceptions of the importance of corporate governance related performance indicators are presented in table 4.

Table 4
REPORTING CORPORATE GOVERNANCE PERFORMANCE INDICATORS

PERFORMANCE INDICATORS	MEAN (SD) CURRENT YEAR 5 = very important	MEAN (SD) CHANGE OVER COMPARATIVE YEARS 5 = very important
Oversight structure	4.05 (0.94)	4.03 (1.01)
Code of ethics enforcement and violations (reported, resolved)	4.39 (0.75)	4.48 (0.71)
Executive compensation	4.04 (1.03)	4.04 (1.05)
Vendor relationships/audits	3.80 (1.02)	4.12 (0.97)
Risk management	4.47 (0.73)	--
Stakeholder communications	4.15 (0.97)	4.15 (0.94)

Students' mean ratings regarding the importance of reporting corporate governance related issues were highest with respect to trend information relating to ethics code violations and current year information relating to risk management. The lowest mean rating related to current year vendor audit information. Overall, students perceived reporting of corporate governance related performance as important. Paired sample t-tests revealed statistically significant differences between students' perceptions of the importance of reporting information relating to employee injuries and all other employee and community related indicators except for employee absences (p-values < 0.05).

Benefits of Integrated Reporting

The study addresses the expected benefits of integrated reporting for companies, investors, and accounting professionals; the effects on the value of annual reporting and inter-company comparability; and the potential effects on companies' commitment to sustainability/CSR programs. Students were also asked whether companies that currently issue reports should adopt an integrated reporting format, assuming that high-quality global reporting guidelines become available. Statistical results regarding students' perceptions of integrated reporting are presented in Table 5.

Table 5
BENEFITS OF AND NEED FOR INTEGRATED REPORTING

QUESTION/STATEMENT	MEAN RATINGS 5 = strongly agree	STANDARD DEVIATION
Investors benefit	4.35	0.82
Large companies benefit	4.18	0.78
Small and midsize companies benefit	3.51	0.94
Accountants benefit	4.01	0.85
Enhanced annual report	4.28	0.77
Increased comparability	4.30	0.84

Analysis of the results suggests that overall, students perceived integrated reporting as beneficial to investors, large companies, and accounting professionals. The mean ratings were above 4.0 (equivalent to agree) for each statement, except for the statement relating to the benefit of integrated reporting for small and midsize companies. Paired sample t-tests show a statistically significant difference between the perceived benefit of integrated reporting with respect to large and small and midsize companies (p-value < 0.05). Students also tended to agree with statements indicating that integrated reporting would enhance annual reporting and improve comparability among companies.

The existence of a globally applicable integrated reporting framework will encourage and support the adoption of an integrated reporting format. Thus, students were asked whether companies should integrate sustainability reporting with their annual financial reporting (i.e., adopt an integrated reporting format) assuming that a high-quality globally accepted integrated reporting framework becomes available. Ninety-one percent of the students answered "yes" to this question. Thus, assuming that a high-quality framework is available, accounting majors, the future accounting professionals, are likely to strongly support the adoption of integrated reporting.

HYPOTHESES TESTING

Hypothesis H1 tests whether students perceive sustainability/CSR reporting as more beneficial to large than to small and midsize companies. Students' mean ratings were 4.29 with respect to large companies and 3.83 with respect to small and midsize companies. Paired sample t-tests show a statistically significant difference in students' perceptions between large and small and midsize companies and hypothesis H1 is supported by the findings (p-value is 0.0005). Thus, accounting majors participating in this study were more likely to perceive that in the long-run voluntary sustainability reporting will be beneficial for large than for small and midsize companies.

Hypothesis H2 tests whether students are more likely to support mandatory sustainability reporting for public companies than for private companies. Students' mean ratings were 4.12 for public companies and 3.65 for private companies. Paired sample t-tests reveal a statistically significant difference in students' perceptions between public and private companies and hypothesis H2 is supported. Specifically, students were more likely to support mandatory reporting for public than for private companies (p value is 0.00001).

Hypothesis H3 tests whether accounting majors perceive reporting of comparative year CSR information as important as reporting of current year information. Matched sample t-tests did not find a statistically significant difference between the perceived importance of reporting information for the current reporting period and for comparative years with respect to environmental-related issue except relating to water usage. Specifically, with mean ratings of 4.32 and 4.19, respectively, student's perceived that reporting of water usage trends was more important than reporting of current year water usage (p-value is 0.03). Paired sample t-tests did not reveal any statistically significant differences between the perceived importance of reporting current year and trend information relating to employee and community related performance indicators. Paired-sample t-tests showed statistically significant differences in students' perception of the importance of reporting current year and trend information with respect to risk management (p-value is 0.0003) and vendor audits (p-value is 0.0004). Thus, hypothesis H3 is only partially supported.

CONCLUSIONS

Sustainability and integrated reporting represent important global reporting trends that require the support of accounting professionals. Accounting majors, many of whom have grown up on an environment that expects and values sustainability, represent the future accounting professionals. Their support and involvement is necessary to help continue to motivate the trend toward sustainability and integrated reporting and lead to a future in which organizations routinely report their comprehensive impact not only on profit, but also on the environment and multiple stakeholders. This study investigates accounting majors' perceptions regarding sustainability and integrated reporting focusing on the perceived benefits to multiple stakeholders, the expected scope and type of issues reported, the reporting time frame, and the need for high-quality global sustainability and integrated reporting standards.

The study finds that overall accounting majors tend to support both sustainability and integrated reporting. In fact, assuming that a high-quality framework for integrated reporting is developed, the vast majority of the students participating in the study felt that companies should issue integrated, instead of stand-alone reports and that this would enhance the value and comparability of annual reporting. The students also tended to perceive that reporting of multiple performance indicators relating to environment and safety, employees and community, and corporate governance both in terms of current year and comparative year information is important. The students identified an enhanced commitment to ethical and socially responsible behavior, especially with respect to the environment, as the most important benefit of voluntary sustainability reporting by companies. Students tended to perceive that sustainability and integrated reporting were more beneficial for large than for small and midsize companies and that sustainability reporting should be mandatory especially for public companies. Insights gained from this study provide important information for decision makers and standard setters and suggest that accounting professionals' involvement in sustainability and integrated reporting may encourage ethical, reliable, and unbiased reporting of information about companies' comprehensive impact on the environment, people, as well as profit.

Limitations

The primary limitations arise from the relatively small sample size (115 participants) relating to one university. However, accounting majors who participated in this study tend to have a diverse, global background, which enhances the validity to the results. Thus, their responses reflect important insights regarding globally important reporting issues. Since the trend toward integrated reporting is continuing to emerge and the IIRC's global framework has not yet been finalized, the study should be repeated and the sample expanded to further investigate this important reporting trend and its impact on multiple stakeholders.

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HOW JUDGES RESPOND TO THE RACIAL COMPOSITION OF THEIR CONSTITUENCIES

Rey Hernández-Julián, Metropolitan State University of Denver
Aleksandar Tomic, Mercer University

ABSTRACT

We use the variation in the judicial selection system—some judges are appointed, while others are elected—to examine how the racial composition of a district affects sentencing. Controlling for characteristics of the crime and the defendant, the sentence length of an African American before an elected judge is inversely related to the percentage of that district's population that is African American. When the judge is appointed, or when the defendant is of any other race, the percentage of the district that is African American has no predictive power. Our results provide additional evidence that outcome of judicial proceedings does depend on the form of judicial selection.

INTRODUCTION

That race matters in the courtroom comes as no surprise. The relationships between the defendant's race and both the probability of incarceration and the length of sentence have been thoroughly examined. Further, the race of the judge can also affect the defendant's outcome. Our paper tackles a new question that, to our knowledge, remains absent from the literature: how the racial composition of the defendant's community is related to the incarceration or sentence of a defendant. In particular, whether a minority defendant's outcome can be predicted by the percentage of the population of the judicial district is of his or her own race. We also examine whether this relationship depends on the manner of judicial selection: is an elected judge more sensitive to his constituents' race than an appointed judge?

We estimate the relationship described above by regressing the length of a defendant's sentence on the percent of a district's population that is of the defendant's race. Since some judges are elected and others are appointed, we estimate the regression separately for the two groups. We argue that elected judges should be particularly responsive to the racial composition of their population; appointed judges should not respond as strongly, and provide an adequate comparison group. Appointed judges are generally selected state-wide and report to the state government, and as such they should be less sensitive to local characteristics.

Although we estimate the regression above for defendants of all races, we focus on African American defendants, where we expect the relationship to be strongest. Discrimination has historically been most prevalent against African Americans (DiIulio, 1994). They are over-represented in the courts and the prisons. For example, in our sample 52 percent of cases when judge is appointed, and 44 percent of cases in front of an elected judge are against an African American defendant. African Americans are over-represented in prison population as well. According to the 2012 prions count, conducted by the Bureau of Justice Statistics, African Americans accounted for 38 percent of inmates in state prisons (Carson and Golinelli, 2013). At the same time, African Americans account for only 13% of US population (Bureau of Census, 2013).

We use data from the *State Court Processing Statistics 1990, 1992, 1994, 1996, and 1998: Felony Defendants in Large Urban Counties*. The data include adjudication and case information on all filings that take place in the month of May of the recorded year. We combine these data with Shepherd's (2002) demographic information for each county, which includes the number of arrests by category of crime and racial composition. A county's method of judicial selection is publicly available American Judicature Society's "Judicial Selection in the States: Appellate and General Jurisdiction Courts" (2004).

We estimate a two-stage Heckman regression, where the first stage estimates the probability of the defendant becoming incarcerated, while the second stage estimates the length of the defendant's sentence, which is the most common treatment in the literature (Bushway and Piehl, 2001). Both stages control for the characteristics of the case and of the defendant. The first stage, in addition, controls for additional variables of the defendant's status, as well as the degree to which local jails are overcrowded.

We find that African Americans facing an elected judge receive shorter sentences as the percentage of the African American population in their district rises. The probability of incarceration, however, is unaffected. When we estimate the same regression for only appointed judges, we find no statistical significance on the coefficient on the percentage of the electorate that is African American. There is also no association when the defendants are white or of other races. We believe that our finding supports the hypothesis that judicial selection has real consequences upon the outcomes of judicial proceedings. Since elected judges give shorter sentences as the percentage of the population that is black increases, we believe that direct election punishes discrimination more strongly than appointment. Our finding is particularly important because the magnitude of the relationship is large: a unit increase in the percentage that is African American diminishes the sentence by 0.435 of a month (or about 13 days). A one standard deviation increase in the percentage of a jurisdiction's population that is African American would decrease a defendant's sentence by almost 6 months.

BACKGROUND

The Leadership Conference on Civil Rights reports that "criminal laws…are enforced in a manner that is massively and pervasively biased" (Welch and Angulo, 2000). If the US suffers from racial bias in the enforcement of its laws, that bias could stem from several sources. Dozens of papers analyze the effect of the defendant's race, while others look at the race of the judge (Daly and Tonry (1997), Wolfgand and Riedel (1973), Mustard (2001), and Schazenbach (2005)) or the race of the victim (Glaeser and Sacerdote (2003)). Other papers have studied the differences in the sentencing behavior of elected and appointed judges and regulators (Besley and Coate (2000), and Fields, Klein, and Sfridis (1997)). Our paper goes beyond the existing research by combining these literatures and focusing on the differential effect of community demographics on appointed and elected judges.

Mustard (2001) focuses on ethnic and gender disparities in sentencing at the federal level. He finds that, after controlling for most case characteristics, blacks, males, and defendants with lower levels of education and income are more likely to be incarcerated and to receive longer sentences in the federal courts. Like most researchers, Mustard is unable to distinguish between the possibility of discrimination due to the judge's discretion from other systematic causes for the discrepancies. For example, drug laws at the federal level (and in most states) prescribe tougher sentences for crack cocaine than for powder cocaine. If blacks are more likely to be involved with crack, then they will receive systematically higher sentences without the presence of discrimination in judges or voters. Mustard (2001) does not assert that he finds discrimination due to the difficulty in separating its effects from those of unobservable characteristics.

Schazenbach (2005) uses data on federal judges, which are all appointed, to see how sentencing varies with the characteristics of the judge and the judge's district, and finds that the "judges' race and sex have little influence on prison sentences in general but do affect racial and sex disparities." Schazenbach (2005) additional contribution is a thorough surveys on the literature on race and sentencing, a literature which overlooks one particular factor. Although the effects of the judge's and the defendant's races have been examined extensively, no previous research has studied the relationship between the method of judicial selection combined with the characteristics of the jurisdiction and sentencing.

We take advantage of the variation in the judicial selection system—some judges are appointed, while others are elected—to answer these questions. An elected judge does not have the luxury to ignore the preferences of the local community. If an elected judge responds to the preferences of his electors, then one would expect the disparate treatment of minorities to decrease as the population share of the defendant's minority increases. Since the judges are elected locally, they are directly accountable to their constituents. Minority voters are likely to be more sensitive to and stronger in their opposition against discrimination against their own group, thus, the higher the percentage of voters that belong to the discriminated group, the lower the elected judge's ability to discriminate and keep his seat. But, this is a double-edged sword. If judges do not have taste for discrimination, but the majority of county electorate does, an elected judge may feel pressure to engage in disparate treatment. An appointed judge may certainly discriminate, but he should be less responsive to the characteristics and preferences of the local community. This study contributes to the literature by answering whether the form of judicial selection matters to a minority defendant, where the bias in sentencing is coming from, and how the racial composition of the community affects the bias.

A so far unstated assumption of this study is that judges have some ability to exercise discretion in sentencing. We feel comfortable with this assumption as previous research "has consistently established that when judges have discretion, they indulge personal policy preferences to some extent" (Schazenbach, 2005). For instance, Bushway and Piehl (2001) state that "African Americans have 20 percent longer sentences than whites, on average, holding constant age, gender, and recommended sentence length from the guidelines." Most of this variation stems from the fact that African Americans are more likely to be sentenced for crimes that leave more room for discretion by the judge.

METHODOLOGY AND DATA

The decision to incarcerate, like the decision to work, operates on two margins: first there is the decision on whether to incarcerate, followed by the decision on for how long. The estimation strategy will follow that pioneered by Heckman (1976) in the context of the work decision. The first-stage regression estimates the incarceration decision:

$$incarceration_{ijt} = \beta X_{ijt} + \delta percentageofpopulationofdefendant'srace_{jt} + \mu Z_{ijt} + \varepsilon_{ijt} \qquad (1)$$

where the subscript i denotes a defendant facing a judge in a trial, j denotes the judicial district, and t denotes the year of the trial. The second stage estimates the following:

$$lengthofsentence_{ijt} = \alpha + \phi X_{ijt} + \theta percentageofpopulationofdefendant'srace_{jt} + \tau(\hat{\lambda}) + \varepsilon_{ijt}. \qquad (2)$$

The lambda-hat is the inverse Mills ratio on the predicted probability of being incarcerated estimated from the first stage regression. The vector Z in the first stage includes the required additional factors that enter into the incarceration decision but can be excluded from the sentence length estimation: whether the defendant is a fugitive, on parole, on probation, on bail, and whether the jails are overcrowded. A defendant captured when on parole, probation or bale will almost certainly be incarcerated, independently of the crime, so these factors will be good predictors in the first stage, though not necessary in the second. The β and ϕ are the coefficients on the control variables in X_{ijt} describing the case and the defendant: the gender and age of the defendant, whether the defendant is a minor, whether the defendant pleads guilty, whether the defendant has prior convictions and how many, the nature of the crime, whether the defendant was in custody when he committed the crime, who represented the defendant in court, and fixed effects for the year and state of the crime.

The coefficients of most interest are δ and θ which estimate the effect of the percentage of the population of the defendant's race on the probability of incarceration and length of sentence. The political pressure on the judge to give a lighter sentence could increase as the percentage of a district's population that is of the defendant's race increases. If that is the case, both δ and θ will be positive and significant. Elected judges are directly accountable to the population and should respond to this pressure more strongly than appointed judges, who are accountable to a legislature. To compare elected and appointed judges, both equations are estimated separately by the form of judicial selection.[2]

We also estimate the regression separately for African Americans, for white defendants, and for all others. This allows us to estimate whether the effect of the percentage of the population is unique to African Americans, or whether it is true for all racial groups. African Americans are over-represented both in our sample and in the prison system. As a result, they have a stronger interest in becoming familiar with judges and their behavior, and in punishing those judges who are unfair.

We collect data on case characteristics, defendant characteristics, judicial selection system, and basic demographics. The data on court cases come from the Third Inter-University Consortium for Political and Social Research (ICPSR) Edition of Bureau of Justice Statistics' dataset, *State Court Processing Statistics 1990, 1992, 1994, 1996, and 1998: Felony Defendants in Large Urban Counties*. The file contains 72,602 observations on felony defendants in 54 of the nation's 75 most populous counties. These counties account for around a third of U.S. population and about a half of all crime in the U.S. The 75 counties were divided according to the number of filings; all of the most active counties were chosen, and additional counties were chosen based on the frequency of filings. The data samples counties to accommodate the full range of variation in the frequency of filings, and the data are weighted accordingly. The data include all filings that take place in the month of May of the recorded year. The filings represent all filings for the month of May of each year, and also include adjudication and case information. The sentences are measured in months and range from zero for those not given any jail time to 1440 for those given a life sentence.

Shepherd (2002) provides demographic information for each county, which includes the number of arrests by category of crime and racial composition. The data on judicial selection come from American Judicature Society's publication titled "Judicial Selection in the States Appellate and General Jurisdiction Courts." The courts in the dataset are all general jurisdiction courts; they are criminal courts and the first ones to hear the case.

The summary statistics for the data are presented in Table 1. The number of observations used in the regressions is lower because of missing adjudication information or missing data on jail populations in Hawaii. A plurality of the defendants are black (49 percent) followed by white (37 percent). Among the remaining cases 69 percent resulted in conviction, of which 93 percent were pleaded. Only 1 percent of cases ended in an acquittal, while 27 percent of the cases were dismissed. Roughly 39 percent of defendants are incarcerated (about half of those convicted), and the average sentence is around 30 months. Counties with elected judges have higher mean population of blacks, and elected judges handle more black defendants.

RESULTS

Table 2 presents regressions, separately by elected and appointed judges, for defendants of all races. The control variables show that being charged with more crimes increases the probability of incarceration, as does being older, for both elected and appointed judges. Minors and females are less likely to be incarcerated, but when incarcerated, are treated no differently. A guilty plea, as expected, will increase the probability of incarceration, but will result in a lower sentence. Having no prior convictions benefits the defendant in the first stage, with no clear benefit in sentencing. Elected and appointed judges respond differently to whether jails are overcrowded.

The variable of most interest is in the first row, the percentage of the district's population that is of the defendant's race. This variable is significant, but of a magnitude with little economic importance, only in the first stage regression for appointed judges. There is no evidence of a relationship between the percentage of a district's population that is of a defendant's race and the length of that defendant's sentence. This result, however, could depend on the fact that this regression includes defendants of all races.

Table 3 estimates the same regression in Table 2, but only for African American defendants. The variable of interest is now the percentage of the district's population that is African American. Although this variable has no effect on the probability of incarceration, the length of the sentence is reduced significantly when the district's population becomes more African American. A one percent increase in the African American population is related to a 0.435 month, or 13 day, reduction in the defendant's sentence. A one standard deviation increase in the percentage of population that is African American, 12.87 percent, is related to a substantial decrease in the defendant's sentence: 5.7 months or 168 days.

The following panel presents evidence that our result is driven by elected judges and the different incentives that they face. Among appointed judges, there is no association between the composition of the population and the race of the defendant. Elected judges, more directly subject to the preferences of their district, are more likely to respond to the racial characteristics of their constituencies when facing an African American defendant. An appointed judge is not accountable to the local communities, and as a result is unresponsive to its composition.

We test whether the finding on African Americans defendants extends to other racial sub-samples. We present estimates from regressions on white defendants, separately for elected and appointed judges, in Table 4. The results show that the percentage of the population that is white has no effect, at conventional levels of significance, on the length of sentence for elected or appointed judges. Table 5 aggregates all other racial groups and the percentage of the districts' populations that is neither African American nor white. In these regressions, the population has no significant relationship to the defendant's outcome.

POLICY IMPLICATIONS AND CONCLUSION

When a black defendant faces an elected judge, he is significantly better off in a community where there are more blacks is negatively related to the length of his sentence. This relationship is present only when judge is elected, as appointed judges are, unsurprisingly, not responsive to the racial composition of their judicial district. The fact that elected and appointed judges behave differently suggests that the longer sentences of black defendants cannot be explained by a bias that exists in the law or the usual factors. Judicial selection and population characteristics matter as well. The disparities between races in sentencing will be greatest in counties with elected judiciary and an extremely low share of blacks in county population.

If one believes that identical crimes should be given comparable sentences, the results of this study will be discouraging. Punishment clearly depends on more than the nature of the crime. That said, these findings could be useful in improving access to a fair trial. An African American defendant facing an elected judge in a district where the population is overwhelmingly not African American could use these results as part of an argument in a request for a change of venue. Areas where African Americans are the minority could also consider selecting their judges through appointment, rather than elections, to decrease the probability of race affecting the outcome.

ENDNOTES

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2 An alternate for of estimation, using a triple interaction of a racial identifier, percentage of the population of the defendant's race, and a dummy for elected judges, delivers results consistent with those presented.

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Table 1: Summary Statistics									
	Elected					Appointed			
	mean	std. Dev.	min.	max		mean	std. Dev.	min.	max
demographics									
percent pop. black	22.39	12.87	1.83	53.39		17.65	15.24	0.82	66.61
percent pop. white	61.09	17.19	18.73	91.63		63.99	18.97	18.73	95.41
arrest charge									
murder	0.005	0.071	0	1		0.007	0.085	0	1
rape	0.015	0.120	0	1		0.015	0.123	0	1
robbery	0.075	0.263	0	1		0.075	0.263	0	1
assault	0.118	0.323	0	1		0.124	0.330	0	1
oth. violent	0.039	0.193	0	1		0.030	0.170	0	1
burglary	0.089	0.284	0	1		0.105	0.306	0	1
theft	0.120	0.325	0	1		0.125	0.331	0	1
oth. property	0.117	0.322	0	1		0.096	0.295	0	1
drug trafick.	0.142	0.349	0	1		0.212	0.409	0	1
oth. drug	0.189	0.392	0	1		0.130	0.336	0	1
weapon	0.033	0.179	0	1		0.031	0.172	0	1
driving	0.025	0.156	0	1		0.028	0.164	0	1
oth. public	0.033	0.179	0	1		0.022	0.147	0	1
conviction charge									
murder	0.002	0.049	0	1		0.004	0.059	0	1
rape	0.006	0.076	0	1		0.006	0.080	0	1
robbery	0.024	0.153	0	1		0.042	0.201	0	1
assault	0.022	0.148	0	1		0.054	0.227	0	1
oth. violent	0.017	0.131	0	1		0.023	0.151	0	1
burglary	0.041	0.198	0	1		0.068	0.251	0	1
theft	0.057	0.231	0	1		0.082	0.275	0	1
oth. property	0.056	0.231	0	1		0.063	0.243	0	1
drug trafick	0.073	0.260	0	1		0.147	0.354	0	1
oth. drug	0.092	0.289	0	1		0.108	0.311	0	1
weapon	0.018	0.134	0	1		0.026	0.161	0	1
driving	0.014	0.119	0	1		0.022	0.147	0	1
oth. public	0.015	0.120	0	1		0.016	0.124	0	1
unkwn. fel.	0.002	0.041	0	1		0.005	0.069	0	1
race of the defendant									
white	0.341	0.474	0	1		0.406	0.491	0	1
black	0.522	0.500	0	1		0.443	0.497	0	1
hispanic	0.180	0.384	0	1		0.224	0.417	0	1
asian	0.011	0.104	0	1		0.019	0.135	0	1
other	0.003	0.057	0	1		0.005	0.071	0	1
N	30,184					30,812			

Table 2: All defendants				
	Elected Judges		*Appointed Judges*	
	Stage 1	*Stage 2*	*Stage 1*	*Stage 2*
	Incarceration	*Length of Sentence*	*Incarceration*	*Length of Sentence*
% of district of defendant's race	0	0.011	-0.001	0.005
	(0.15)	(0.41)	(5.92)**	(0.15)
Number of charges	0.016	1.724	0.015	1.689
	(5.35)**	(3.15)**	(5.85)**	(2.60)**
Age	0.011	0.072	0.01	0.298
	(4.77)**	(0.19)	(4.78)**	(0.42)
Age squared	0	0	0	-0.001
	(5.01)**	(0.06)	(4.79)**	(0.12)
Under 18	-0.053	-0.317	-0.095	-1.437
	(2.38)*	(0.05)	(4.04)**	(0.25)
Female	-0.069	-1.708	-0.064	-2.191
	(6.10)**	(1.41)	(7.08)**	(1.92)
Pleaded Guilty	0.549	-53.113	0.446	-60.136
	(60.98)**	(7.53)**	(38.77)**	(7.08)**
No prior convictions	-0.167	0.311	-0.165	-4.885
	(13.00)**	(0.14)	(15.97)**	(2.89)**
Jails overcrowded	-0.149		0.146	
	(7.36)**		(6.60)**	
On probation	0.081		0.076	
	(7.27)**		(6.65)**	
On parole	0.13		0.14	
	(8.02)**		(7.71)**	
Arrested on Bail	0.043		0.05	
	(3.10)**		(3.57)**	
Fugitive	0.15		0.031	
	(6.75)**		(1.16)	
Constant		95.996		100.619
		(5.14)**		(4.32)**
Observations	27,242	26,323	29,088	28,194
Includes controls for the crime, legal representation, state, and year of crime | Robust z statistics in parentheses | * significant at 5%; ** significant at 1%				

Table 3: African American defendants				
	Elected Judges		*Appointed Judges*	
	Stage 1	*Stage 2*	*Stage 1*	*Stage 2*
	Incarceration	*Length of Sentence*	*Incarceration*	*Length of Sentence*
% of district African Amer.	0	-0.435	0.001	-0.145
	(0.55)	(3.51)**	(0.95)	(0.77)
Number of charges	0.017	1.341	0.021	2.066
	(3.93)**	(1.62)	(5.17)**	(1.79)
Age	0.013	0.02	0.012	0.904
	(4.28)**	(0.03)	(3.62)**	(1.28)
Age squared	0	0.001	0	-0.015
	(4.31)**	(0.14)	(3.29)**	(1.68)
Under 18	-0.008	1.723	-0.084	-11.004
	(0.30)	(0.18)	(2.66)**	(1.34)
Female	-0.085	-0.297	-0.091	-3.355
	(5.06)**	(0.11)	(5.68)**	(1.30)
Pleaded Guilty	0.51	-65.958	0.485	-56.254
	(42.60)**	(6.04)**	(30.92)**	(5.14)**
No prior convictions	-0.168	6.548	-0.177	-2.012
	(10.43)**	(1.74)	(12.24)**	(0.73)
Jails overcrowded	-0.127		0.162	
	(4.22)**		(4.84)**	
On probation	0.09		0.068	
	(5.96)**		(4.18)**	
On parole	0.129		0.135	
	(6.54)**		(5.66)**	
Arrested on Bail	0.035		0.02	
	(2.06)*		(1.10)	
Fugitive	0.164		0.027	
	(6.25)**		(0.77)	
Constant		122.266		74.61
		(5.08)**		(3.28)**
Observations	14,784	14,243	13,466	13,012
Includes controls for the crime, legal representation, state, and year of crime | Robust z statistics in parentheses | * significant at 5%; ** significant at 1%				

Table 4: White defendants				
	Elected Judges		*Appointed Judges*	
	Stage 1	*Stage 2*	*Stage 1*	*Stage 2*
	Incarceration	*Length of Sentence*	*Incarceration*	*Length of Sentence*
% of district of white	0.001	-0.106	-0.002	0.293
	(2.13)*	(1.19)	(4.28)**	(1.91)
Number of charges	0.013	2.295	0.009	2.81
	(2.78)**	(2.37)*	(3.11)**	(2.15)*
Age	0.01	-0.514	0.008	1.215
	(2.88)**	(0.77)	(2.62)**	(1.37)
Age squared	0	0.007	0	-0.014
	(3.12)**	(0.73)	(2.83)**	(1.01)
Under 18	-0.121	-0.616	-0.086	13.576
	(3.07)**	(0.06)	(2.17)*	(1.56)
Female	-0.045	-3.601	-0.044	-1.218
	(2.69)**	(3.25)**	(3.71)**	(0.81)
Pleaded Guilty	0.565	-36.468	0.368	-61.625
	(37.00)**	(3.85)**	(20.54)**	(4.55)**
No prior convictions	-0.159	-5.022	-0.137	-3.976
	(7.59)**	(1.46)	(8.41)**	(1.54)
Jails overcrowded	-0.172		0.176	
	(5.43)**		(5.30)**	
On probation	0.063		0.09	
	(3.40)**		(4.99)**	
On parole	0.175		0.175	
	(5.60)**		(5.46)**	
Arrested on Bail	0.083		0.072	
	(3.32)**		(3.00)**	
Fugitive	0.13		0.023	
	(2.99)**		(0.53)	
Constant		121.802		-0.466
		(2.37)*		(0.02)
Observations	9,622	9,357	11,935	11,599
Includes controls for the crime, legal representation, state, and year of crime | Robust z statistics in parentheses | * significant at 5%; ** significant at 1%				

Table 5: All other defendants				
	Elected Judges		*Appointed Judges*	
	Stage 1	*Stage 2*	*Stage 1*	*Stage 2*
	Incarceration	*Length of Sentence*	*Incarceration*	*Length of Sentence*
% of district of other	-0.001	-0.003	-0.002	0.037
	(0.48)	(0.05)	(1.72)	(0.13)
Number of charges	0.015	0.372	0.016	0.201
	(1.82)	(1.01)	(2.93)**	(0.30)
Age	0.004	0.725	0.01	-1.046
	(0.76)	(3.05)**	(2.03)*	(0.50)
Age squared	0	-0.009	0	0.024
	(0.80)	(2.89)**	(2.38)*	(0.70)
Under 18	-0.024	5.953	-0.168	-5.749
	(0.34)	(0.77)	(2.59)**	(0.71)
Female	0.009	-0.931	-0.035	-4.859
	(0.40)	(0.93)	(2.69)**	(2.56)*
Pleaded Guilty	0.699	-10.319	0.533	-76.289
	(23.33)**	(1.27)	(15.34)**	(2.68)**
No prior convictions	-0.157	-2.902	-0.154	-11.289
	(4.01)**	(2.27)*	(5.51)**	(2.56)*
Jails overcrowded	0.091		0.084	
	(2.84)**		(3.04)**	
On probation	0.053		0.086	
	(1.00)		(1.90)	
On parole	0.064		0.129	
	(1.13)		(3.10)**	
Arrested on Bail	0.135		0.084	
	(1.40)		(1.06)	
Fugitive	-0.102		0.029	
	(1.87)		(0.50)	
Constant		-14.214		124.782
		(1.77)		(2.04)*
Observations	3,752	2,723	4,207	4,096
Includes controls for the crime, legal representation, state, and year of crime | Robust z statistics in parentheses | * significant at 5%; ** significant at 1%				

CATALYSTS FOR CHANGE IN BOARD GOVERNANCE PRACTICES: THE CASE OF THE INTRODUCTION OF NATIONAL POLICY 58 – 201 IN CANADA

Hanen Khemakhem, ESG-UQAM
Patrice Gélinas, York University
Lisa Baillargeon, ESG-UQAM

ABSTRACT

This paper investigates the impact of the adoption of National Policy 58 – 201 in 2005 on board governance practices in Canada. We find that National Policy 58 – 201, which suggests that issuers adopt voluntarily an array of board governance best practices, has improved board governance practices significantly, to the point where board governance practices of Canadian issuers not subject to Sarbanes-Oxley became undistinguishable from those of Canadian issuers who had to comply with Sarbanes-Oxley mandatorily. This suggests that voluntary and mandatory calls for governance reforms by regulatory authorities may be equally effective. Our results also suggest that boards sensitive to disclosure governance issues are more likely to adopt board governance best practices while boards of extractive industry issuers may be less likely to do so without non-binding policies issued by regulatory authorities.

INTRODUCTION

On April 15, 2005, members of the Canadian Securities Administrators issued National Policy 58-201 Corporate Governance Guidelines which provides guidance on best governance practices to Canadian issuers. The National Policy 58 – 201's objectives were to achieve a balance between providing protection to investors and fostering fair and efficient capital markets and confidence in capital markets; be sensitive to the realities of the greater numbers of small companies and controlled companies in the Canadian corporate landscape; take into account the impact of corporate governance developments in the U.S. and around the world; and recognize that corporate governance is evolving. The guidelines in National Policy 58 – 201 were not intended to be prescriptive. Their objective was to encourage issuers to consider the guidelines in developing their own corporate governance practices regarding board independence, mandate, position descriptions, orientation and education, code of business conduct and ethics, as well as nomination.

The goal of this paper is to explain the voluntary adoption of National Policy 58 – 201's governance guidelines. This topic has received little attention in the literature. The non-binding nature of National Policy 58 – 201 is consistent with the Canadian tradition of suggesting change at first. It is also interesting in that it differs from the American context where similar changes were mandated. We assess how Canadian TSX 300 issuers had adopted National Policy 58 – 201's best practices by 2004 and by 2006 to understand how issuers adopt board governance best practices.

LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

Boards of directors have multiple responsibilities and may be in conflict of interest while discharging them (Fama and French, 1983; Jensen and Meckling, 1976; Jensen, 1993). They approve the strategic direction of the company, establish a system of internal control and ensure the integrity of financial reporting (Naciri, 2010) and ensure that managers act in the interest of the shareholders (Shleifer & Vishny 1997). Regulators often take action to mitigate boards' conflicts of interest (Hail and Leuz, 2006) which are influenced by local legal frameworks (LaPorta et al., 2000, Udayasankar et al., 2008). Regulators and investors have common interest in good governance mechanisms since they help to maximize the value of the firm (Agrawal and Knoeber, 1996) and to mitigate risks (Finet, 2005) for all investors, including the numerous participants in savings and pension plans.

In Canada, following calls from governance activists, investor protection groups and the public, financial market regulations have undergone important changes from the year 2000 (Carnaghan and Gunz, 2007), which were by and large localized adaptations of the U.S. Sarbanes-Oxley law (Rousseau and Talbot, 2007). The call for voluntary improvement in board of director governance practices with the adoption of National Policy 58 – 201 in 2005 leads to the following hypothesis:

> *H1. Canadian issuers improved their board of director governance practices following the adoption of National Policy 58 – 201.*

Several Canadian issuers are cross-listed in Canada and in the U.S. Consequently, the boards of cross-listed issuers had to comply with Sarbanes-Oxley requirements before deciding whether or not to comply with the very similar National Policy 58 – 201 on a voluntary basis. Because this required very little additional work while making regulators and observers satisfied, one would expect that boards of cross-listed issuers would be more prone to conforming with National Policy 58 – 201 than boards of other issuers would be, leading to:

> *H2. A Canadian issuer's obligation to conform to the Sarbanes-Oxley law increases the likelihood of conforming voluntarily to National Policy 58 – 201.*

Corporate accounting scandals have led various stakeholders to expect the adoption of best governance practices by issuers (Kang, Cheng and Gray, 2007). The literature identifies several reasons for boards of directors to be sensitive to those governance issues. For instance, the quality of governance largely determines the image and reputation of issuers (Igalens and Point, 2009). An issuer's good reputation in turn facilitates financing (Shleifer and Vishney, 1997; Laporta et al., 2000). Hence:

H3. An issuer's need for capital increases the likelihood of conforming voluntarily to National Policy 58 – 201.

An issuer's good reputation also reflects positively on board members' individual reputation (Yermack, 2004). In addition, the improvement of governance mechanisms to monitor leaders reduces the risks that shareholders be dispossessed of their holdings in the company (Finet, 2005; Shleifer and Vishny, 1997), and therefore of potential individual lawsuits against individual board members. Agrawal and Knober (1996) note that governance mechanisms implemented by boards of directors are usually interrelated. This implies that when members of a board are collectively sensitive to their reputation or sensitive to the risks associated with lawsuits, for instance, they will be sensitive to governance issues, standards and regulation in general. Therefore:

H4. An issuer's board sensitivity to governance issues increases the likelihood of conforming voluntarily to National Policy 58 – 201.

Finally, since reputational and legal risks are not equal in all industrial sectors, an issuer's industrial sector should influence likelihood of conforming voluntarily to National Policy 58 – 201. For example, Aguilera et al. (2006) note that some institutional investors may have instrumental motives to request companies to improve their social responsibility profile since this could facilitate access to scarce resources and consequently give the company a competitive advantage (Armour et al., 2003; Solomon et al., 2004). Williams (2004) documents that this has led to the creation of the *Extractive Industry Transparency Initiative* which encourages oil, gas and mining companies to disclose the payments they make to host countries for access to their natural resources. Given that instrumentally motivated investors are particularly attentive to the relationship between a company's reputation and its share price while making investment choices (Clark and Hebb, 2005), and that senior executives in Canada have their pay tied to share price performance over the long term (St-Onge et al., 2001), we hypothesize:

H5. Issuers in extractive industries (oil, gas and mining) are more likely to conform voluntarily with National Policy 58 – 201.

MÉTHOD

Our initial sample includes all the companies of the S&P/TSX 300 in years 2004 and 2006. Disclosures published in 2004 reflect issuers' governance practices prior to the implementation of National Policy 58 – 201 while the 2006 disclosures reflect governance choices after boards of issuers had time to adopt and implement the best practices suggested in National Policy 58 – 201. Data regarding the board of directors and the board committees of each issuer have been extracted from proxy circulars and other annual disclosures obtained from the SEDAR database, which contains the electronic format of all regulatory findings of Canadian issuers. The recording of the 2006 practices was more straightforward since issuers were required to prepare and disclose a comparative table detailing their application of National Policy 58 – 201 as well as the causes of non-compliance where applicable. Financial data used to assess capital needs were extracted from the *Wharton - Campustat* database. Sensitivity to governance was assessed using data were obtained from the annual Globe and Mail's *Board Games: Report on Corporate Governance Ranking*. Board Games are an annual assessment and ranking of the quality of governance practices among the largest Canadian issuers along four dimensions: board composition, compensation, shareholder rights and disclosure. Consistent with several prior studies (e.g., Bozec et al., 2010), financial services companies were eliminated from the sample since their relative size in the Canadian context and their unique balance sheet dynamics could skew results. Usable data were available from all the sources for 157 companies in 2004 and for 145 companies in 2006 as shown in Table 1.

Table 1
SAMPLE SELECTION

	2004	2006
S&P /TSX 300 companies	232	277
Less: financial services	(21)	(25)
Less: companies not available in all data sources	(54)	(107)
Final sample	157	145

The fully described model used to test H1, H2, H3, H4 and H5 regarding voluntary compliance with National Policy 58 – 201 is as follows:

Compliance = a + b1 U.S. cross-listing + b2 Debt ratio + b3 Market capitalization + b4 Sensitivity to governance issues: disclosure + b5 Sensitivity to governance issues: compensation + b6 Sensitivity to governance issues: shareholder rights + b7 Extractive industry + b8 Year 2006 + e

To better understand the voluntary compliance dynamics, we also run separate regressions for years 2004 and 2006 without the dichotomous *Year 2006* variable.

Dependent variables

To measure voluntary pre- and post-implementation compliance with National Policy 58 – 201, we first assign a unitary value associated with complying governance practices suggested by National Policy 58 – 201: the independence of the board, the independence of the chair of the board, a code of business conduct and ethics, a written board mandate, continuing education for board members and meetings of the independent members. To increase the comprehensiveness of our assessment of compliance with board governance best practices, we also add one mark for the presence of financially literate board members on the audit committee, as per National Instrument 52 – 110, which is a companion policy that provides further guidance on audit committee composition. Then, we add the total score of each issuer to obtain an index of an issuer's compliance with National Policy 58 – 201. The index is used as the *Compliance* variable in the model. The advantage in the use of measurement indices is that they provide a more comprehensive measure and comparability between companies (Bhagat, Bolton and Romano, 2008). Indices have been used profusely in the literature (e.g., da Silveira et al., 2010; Defond, Hann and Hu, 2005; Gompers et al., 2003).

Independent variables

U.S. cross-listing is a dichotomous variable with a value of 1 if the issuer is listed on a U.S. stock exchange, and thus required to comply with Sarbanes-Oxley, and 0 if not. *Debt ratio* (long-term debt divided by total assets) and *Market capitalization* (in the natural logarithmic form) are proxies for an issuer's need for capital and are obtained for each issuer from Compustat. In five cases the market capitalization was missing in Compustat and, for consistency, missing data were substituted with yearly sample averages instead of data from alternate sources. *Sensitivity to governance issues* is assessed with the Board Games rankings of each issuer regarding compensation, shareholder rights and disclosure. Each ranking is the sum of the marks obtained by each issuer for complying or not with governance-related practices. The fourth Board Games category is "board of directors". We exclude this category from our analyses because it includes several dimensions that are common with our dependent variable. The scoring algorithm to prepare indices used for our *Compliance*, *Sensitivity to governance issues: disclosure*, *Sensitivity to governance issues: compensation* and *Sensitivity to governance issues: shareholder rights* variables are presented in Appendix 1. *Extractive industry* is a dichotomous variable that takes the value of 1 if the TSX300 company is in the mining or oil and gas industrial sectors and zero otherwise. *Year 2006* is also a dichotomous variable that takes the value of 1 for year 2006 and zero for year 2004.

FINDINGS

Table 2 presents descriptive statistics for each variable for 2004, 2006 and for the two years combined (labeled as full sample). Table 3 presents correlation matrices. Table 4 presents the regression analyses where statistically significant ANOVA F-ratios suggest that the models are well specified and where relatively low variance inflation factors (VIF below 5) indicate no multicollinearity problems.

Table 2
DESCRIPTIVE STATISTICS FOR TSX300 COMPANIES PRE- AND POST-IMPLEMENTATION (2004 AND 2006, RESPECTIVELY) OF NATIONAL POLICY 58 – 201

	Full Sample		2004 Only		2006 Only	
	Average	*Std. Dev.*	*Average*	*Std. Dev.*	*Average*	*Std. Dev.*
Compliance	6.530	2.148	5.420	2.116	7.731	1.415
U.S. cross-listing	0.417	0.494	0.420	0.495	0.414	0.494
Debt ratio	0.182	0.148	0.182	0.141	0.181	0.155
Market capitalization	16.128	1.340	16.750	1.191	15.452	1.154
Sensitivity to governance issues: disclosure	7.606	3.576	9.980	3.085	5.035	1.902
Sensitivity to governance issues: compensation	13.076	4.362	11.880	3.941	14.372	4.438
Sensitivity to governance issues: shareholder rights	17.900	5.708	18.850	5.629	16.880	5.637
Extractive industry	0.381	0.486	0.357	0.481	0.407	0.493
Year 2006	0.480	0.500				
N	302		157		145	

Results provide strong support for H1. *Compliance* with National Policy 58 – 201 has increased from an average score of 5.420 pre-implementation in 2004 to an average score of 7.731 after the implementation, which is consistent with H1, as is the positive correlation between *Compliance* and *Year 2006* in the full sample section of Table 3. In Table 4 the statistically significantly positive coefficient for *Year 2006* further provides unambiguous support for H1. Aggregately, our findings provide strong support for H1 and suggest that Canadian issuers have voluntarily adopted good board of director governance practices following the implementation of National Policy 58 – 201. Interestingly, the 2006 regression in Table 4 is the only regression that shows a statistically significant coefficient for the intercept and a non-significant F-ratio. This suggests that by 2006, following the adoption of National Policy 58 – 201, board governance practices had become uniform in Canada.

Results are somewhat consistent with H2. In table 2, the statistically significant correlation between *U.S. cross-listing* and *Compliance* in 2004 suggests that Canadian issuers required to comply with Sarbanes-Oxley prior to the implementation of National Policy 58 – 201 had better board of director governance practices, which is directionally consistent with H2, as is the positive, albeit not statistically significant, sign of the coefficient for *U.S. cross-listing* in the 2004 and full model regressions found in Table 4. However, following the implementation National Policy 58 – 201, the governance edge of those cross-listed issuers became indistinguishable and it seems that other factors might be more determining of the adoption of good board of director governance practices because the 2006 coefficient for *U.S. cross-listing* in Table 4 is practically nil. Globally these findings suggest that voluntary National Policy 58 – 201 may have been just as effective as mandatory Sarbanes-Oxley at improving board of director governance practices.

Table 3
CORRELATION MATRICES FOR TSX300 COMPANIES PRE- AND POST-IMPLEMENTATION (2004 AND 2006, RESPECTIVELY) OF NATIONAL POLICY 58 – 201

Full Sample (2004 & 2006)	1.	2.	3.	4.	5.	6.	7.	8.
1. Compliance	1.000							
2. U.S. cross-listing	0.067	1.000						
3. Debt ratio	0.075*	-0.107**	1.000					
4. Market capitalization	-0.139***	0.257***	0.142***	1.000				
5. Sensitivity to governance issues: disclosure	-0.190***	0.120**	0.093*	0.511***	1.000			
6. Sensitivity to governance issues: compensation	0.331***	0.133***	0.219***	0.197***	0.139***	1.000		
7. Sensitivity to governance issues: shareholder rights	-0.023	0.144***	-0.003	0.332***	0.254***	0.220***	1.000	
8. Extractive industry	-0.063	0.166***	-0.266***	0.094*	-0.124**	-0.145***	0.067	1.000
9. Year 2006	0.538***	-0.007	-0.004	-0.485***	-0.692***	0.286***	-0.172***	0.052*
2004 Only								
1. Compliance	1.000							
2. U.S. cross-listing	0.112*	1.000						
3. Debt ratio	0.065	-0.118*	1.000					
4. Market capitalization	0.199***	0.276***	0.208***	1.000				
5. Sensitivity to governance issues: disclosure	0.336***	0.156**	0.131*	0.288***	1.000			
6. Sensitivity to governance issues: compensation	0.260***	0.128*	0.278***	0.411***	0.487***	1.000		
7. Sensitivity to governance issues: shareholder rights	0.083	0.138**	0.068	0.266***	0.189***	0.237***	1.000	
8. Extractive industry	-0.142**	0.228***	-0.170**	0.189***	-0.099	-0.092	0.155**	1.000
2006 Only								
1. Compliance	1.000							
2. U.S. cross-listing	0.041	1.000						
3. Debt ratio	0.136*	-0.095	1.000					
4. Market capitalization	0.115*	0.306***	0.112*	1.000				
5. Sensitivity to governance issues: disclosure	0.207***	0.177**	0.13*	0.275***	1.000			
6. Sensitivity to governance issues: compensation	0.177**	0.154**	0.187**	0.393***	0.541***	1.000		
7. Sensitivity to governance issues: shareholder rights	0.089*	0.152**	-0.075	0.313***	0.207***	0.332***	1.000	
8. Extractive industry	-0.061	0.102	-0.358***	0.079	-0.171**	-0.238**	-0.005	1.000

*** Significant at the 0.01 level, two-tailed
** Significant at the 0.05 level, two-tailed
* Significant at the 0.10 level, two-tailed

Table 4 OLS REGRESSIONS TO EXPLAIN VOLUNTARY COMPLIANCE WITH NATIONAL POLICY 58 – 201 BY TSX300 COMPANIES PRE- AND POST-IMPLEMENTATION (2004 AND 2006, RESPECTIVELY)							
	Predicted	Full Model		2004 Only		2006 Only	
	Sign	*b*	*t*	Beta	t	Beta	t
Intercept		1.484	0.97	0.056	0.023	6.062	3.680***
U.S. cross-listing	+	0.114	0.525	0.267	0.766	0.004	0.015
Debt ratio	+	0.235	0.322	-0.474	-0.389	1.029	1.231
Market capitalization	+	0.121	1.192	0.201	1.257	0.031	0.256
Sensitivity to governance issues: disclosure	+	0.166	3.703***	0.166	2.753***	0.111	1.505*
Sensitivity to governance issues: compensation	+	0.021	0.695	0.043	0.855	0.018	0.515
Sensitivity to governance issues: shareholder rights	+	0.001	0.078	0.002	0.072	0.01	0.439
Extractive industry	+	-0.307	-1.37*	-0.672	-1.86**	0.047	0.176
Year 2006	+	3.257	9.179***				
Adjusted R-squared		0.349		0.112		0.014	
Maximum VIF		3.159		1.567		1.661	
ANOVA F-ratio		21.20***		3.82***		1.29	
*** Significant at the 0.01 level, one-tailed if sign is predicted, two-tailed otherwise ** Significant at the 0.05 level, one-tailed if sign is predicted, two-tailed otherwise * Significant at the 0.10 level, one-tailed if sign is predicted, two-tailed otherwise							

Results are consistent with H3 but without convincing statistical significance. The positive coefficient of *Debt ratio* in Table 4's 2006 regression ($p < 0.11$) suggests that National Policy 58 – 201 would have led issuers with the most leveraged balance sheet to be more sensitive to voluntary calls for better board of director governance practices. The positive signs of the coefficients for *Debt ratio* and *Market capitalization* in the full regression model are also consistent with H3, but not statistically significant. Correlations are challenging to interpret and suggest that more research may be needed to explore the impact of capital needs on voluntary governance-related decisions in the Canadian context.

Results support H4. Table 3's positive and statistically significant correlations between *Compliance* and the *Sensitivity to governance issues* variables suggest that boards that are sensitive to disclosure and compensation governance issues are more likely to align their board governance with National Policy 58 – 201. The statistically significant and positive coefficients for *Sensitivity to governance issues: disclosure* in Table 4's regressions suggest that boards more sensitive to disclosure issues are more likely to adopt good board governance practices. Sensitivity to compensation and shareholder rights issues appears to be less predictive of the likelihood of adopting good board governance practices. Reasons behind this observation could be explored further.

Results are mixed regarding H5. Interestingly, the correlation between *Compliance* and *Extractive industry* was negative and statistically significant in 2004 while it was no longer statistically significant in 2006. This suggests that companies from extractive industries seem to have lagged their TSX300 peers regarding the adoption of good governance practices, but that the implementation of National Policy 58 – 201 was the nudge needed to make them indistinguishable from their peers. The improvement in board governance practices of extractive industry companies is consistent with H5, but this improvement was insufficient to make extractive companies measurably better than others as H5 would have predicted. In fact, results rather suggest that companies in extractive industries need more "encouragement" than others to adopt good governance practices because they are less likely to adopt them voluntarily without calls from external authorities.

CONCLUSION

The objective of this paper was to highlight factors that have led Canadian companies to comply voluntarily with National Policy 58 – 201 by adopting best board of director governance practices. National Policy 58 – 201 mimicked requirements issued earlier in the U.S. Sarbanes-Oxley law. The difference however was that the adoption of National Policy 58 – 201's governance practices by Canadian issuers is *voluntary* while the adoption of Sarbanes-Oxley's governance practices by U.S. issuers is *mandatory*. Findings suggest that despite the fact that issuers could decide to comply with National Policy 58 – 201 or not, Canadian issuers improved their board governance significantly following its adoption. In fact, board governance practices were improved to the point where board governance practices of Canadian issuers not subject to Sarbanes-Oxley became undistinguishable from those of Canadian issuers who had to comply with Sarbanes-Oxley mandatorily. This suggests that voluntary and mandatory calls for governance reforms by regulatory authorities may be equally effective. These results provide empirical evidence that can fuel the development of the emerging literature on the cost-benefits merits of voluntary corporate governance regimes versus mandatory regimes (Anand, 2005, 2006; Anand et al., 2006).

Our results also suggest that boards of issuers who are more sensitive to governance issues, particularly issues that relate to disclosure, we more prone to adopt voluntarily the governance best practices of National Policy 58 – 201. Globally, our results suggest that the adoption of National Policy 58 – 201 in 2005 has leveled the governance playing field in Canada. Canadian-based U.S. issuers as well as issuers from extractive industries were practically indistinguishable from others in their board governance practices by 2006.

This paper has some limitations that we trust do not leave any doubts regarding our main conclusions. Firstly, the index we use to measure the adoption of National Policy 58 – 201 is an equally-weighted series of yes-no questions. Some observers could argue that some dimensions of National Policy 58 – 201 should carry more weight than others. Secondly, the index addresses most, but not all, of National Policy 58 – 201's dimensions because we limited our data collection to what was available through public disclosures. Thirdly, missing data, issuers not present in all data sources, or unavailable public disclosures have reduced our issuer samples by about 25% to 35%. Finally, the *Board Games* indices that we relied on to assess sensitivity to governance issues evolve slightly in how they are built from one year to the next, which may generate minor year-over-year measurement inconsistencies in those variables.

This paper opens the door for much more research. For instance, the reasons why companies from extractive industries require calls from authorities to adopt best governance practices could be explored. The dynamics of the linkages between need for capital and the adoption of good board governance practices remain unclear. The reasons why sensitivity to disclosure governance issues is more closely associated with board governance practices than is sensitivity to compensation or shareholder rights governance could be probed further. Finally, the motives why voluntary calls for governance appear to be as effective as mandatory legal requirements could be investigated in details.

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Appendix 1	
Scoring Algorithm to Build Indices Used as Variables	
Compliance	
• Are the majority of board members independent?	• Yes = 1, No = 0
• Has the board appointed a chair of the board or a lead director who is an independent director?	• Yes = 1, No = 0
• Non-duality of the Chairman? I.e., the Board Chairman is not the CEO and is an independent director.	• Yes = 1, No = 0
• Does the company have a written code of business conduct and ethics?	• Yes = 1, No = 0
• Has the board adopted a written mandate?	• Yes = 1, No = 0
• Is the board conducting regular assessments of the board effectiveness, as well as the effectiveness and contribution of each board committee and each individual director?	• Yes = 1, No = 0
• Are board members provided with continuous education opportunities?	• Yes = 1, No = 0
• Are there regularly scheduled meetings of independent directors at which non-independent directors and members of management are not in attendance the board hold in camera meetings?	• Yes = 1, No = 0
• Is there a financially literate expert on the board and its audit committee?	• Yes = 1, No = 0
TOTAL	Minimum = 0, maximum = 9
Sensitivity to governance issues: disclosure [1]	
• Does the company provide a full explanation of which directors are related and unrelated and why?	• Three marks if full disclosure. • Two marks if a company calls a director with close relationships an “independent” director. • Zero marks if related directors are not identified by name.
• Does the company disclose how much the auditor is paid for consulting and other services?	• Three marks if all the details are disclosed. • Two marks if details are disclosed, but consulting fees are higher than audit fees. • One mark if consulting fees are more than double the audit fees. • Zero marks if there is no disclosure.
• Does the company disclose detailed biographies to explain directors’ qualifications to represent shareholders? Does the company list other public company boards the directors sit on?	• Two marks, one for each question. • Zero marks if there is no disclosure.
• Does the company disclose director attendance records at board meetings?	• Two marks for disclosure. • One mark if any director has missed more than one-third of meetings. • Zero marks if there is no disclosure or if there are only average attendance numbers provided for the board as a whole.
• How often did the board and its committees meet last year?	• Three marks for full disclosure. • Two marks for partial disclosure. • Zero marks for no disclosure.
TOTAL	Minimum = 0, maximum = 13

Sensitivity to governance issues: compensation[1]	
• Are directors required to own shares or share units? (Stock options don't count.)	• Four marks if the requirement is equal to at least three times the annual retainer paid to directors. • Two marks if there is a requirement, but it is lower than three times retainer. • Zero marks if there is no requirement.
• How many shares to directors own?	• Four marks maximum, but minus one mark for each director who owns less than three times the annual retainer. (In 2003, ROB marked whether directors owned 2,000 shares or more, but decided to tie the requirement to retainer in 2004 to recognize the differences in companies' share prices, and in the compensation differences among companies.) • If a director has been on the board less than one year, the ownership requirement does not apply. • If a director has been on the board one to two years, the required ownership level is reduced to one times the retainer. • If the base retainer is over $100,000 a year (usually when companies have introduced flat fee director compensation), the ownership requirement is 1.5 times retainer.
• Is the CEO required to own shares? (Stock options don't count.)	• Two marks if there is a requirement, or if the CEO is the company's controlling shareholder. • Zero marks if there is no requirement.
• Does the CEO own shares?	• Three marks if the CEO owns shares at least equal to his or her base cash salary. (In 2003, ROB marked whether CEOs owned at least 50,000 shares, but decided to tie the requirement to base salary to recognize differences in companies' share prices as well as compensation differences among companies.) • Two marks if the CEO owns shares equal to 40 per cent of his or her base salary. • Zero marks if the CEO owns shares worth less than 40 per cent of his or her base salary.
• Does the company give loans to its senior executives?	• Two marks if there are no loans or if the company is a bank and makes loans at consumer rates. • One mark if the loans carry interest and are under $500,000 in total. • Zero marks if loans are interest free or over $500,000 in total.
• How well does the company disclose the compensation policies it applies when deciding CEO bonuses?	• Four marks if the company explains in detail how it awards the CEO's bonus, including details of financial targets that must be met to receive a full bonus, as well as how much these targets count toward the bonus (compared with other personal performance factors) and whether the criteria were met in the previous financial year. • Three marks if the company explains its benchmarks generally and their weightings, but not the precise financial targets. • Two marks if the company lists a number of benchmarks, but provides no details on how they are applied. • One mark if there is only a cursory mention of benchmarks. • Zero marks if there are no clear benchmarks identified or if the company simply says bonuses are based on "corporate performance."
TOTAL	• Minimum = 0, maximum = 40

Sensitivity to governance issues: shareholder rights[1]	
• Do companies allow shareholders to vote for individual directors, or only the entire slate of nominees?	• Four marks if there is voting for individual directors. • Zero marks if there is only slate voting.
• Are stock options excessively dilutive?	• For 2004, ROB assessed the dilution based on the number of options outstanding at the company's fiscal year end as a percentage of all shares outstanding. Where the company has more than one class of shares, dilution is measured for whichever class of shares is diluted by the outstanding options. (In 2003, stock option dilution was calculated with a tougher formula that also included options approved for issuance but not yet granted. As well, the maximum possible score was six marks.) • Four marks if the dilution is less than five per cent of outstanding shares. • Two marks if the dilution is between five per cent and 10 per cent of outstanding shares. • Zero marks if options are more than 10 per cent dilutive to shareholders.
• Is the annual grant rate excessive?	• Four marks if the number of options granted in the last fiscal year was less than 1.5 per cent of all shares outstanding. (In 2003, the threshold was two per cent, and the question carried a maximum of two marks.) • Zero marks if the grant rate exceeded 1.5 per cent annually.
• Is there a vesting period before options can be exercised?	• Two marks if yes. • Zero marks if some options are immediately exercisable upon granting.
• What are other option plan features?	• Four marks if there is no stock option plan. • Zero marks if the company has repriced its stock options in the past fiscal year. • Otherwise:
• Does the company award options to directors?	• Two marks if there are no options for directors • One mark if the company's option plan includes a firm cap on director option grants. • Zero marks if directors participate in the option plan at the board's discretion.
• Has the company introduced performance hurdles that must be met before stock options can be exercised, or requirements that shares must be held for a period after options are exercised?	• Two marks if yes to either question. • Zero marks if no.

• Are there non-voting or subordinate voting shares?	• Ten marks if there are no dual-class shares. (In 2003, ROB awarded a maximum of eight marks.) • ROB gave reduced marks depending on the gap between the percentage of votes controlled by the superior voting shares and the percentage of the company's equity they represent, using the following guidelines: • Five marks if the ratio is less than 2:1. • Four marks if the ratio is between 2:1 and 3:1. • Three marks if the ratio is between 3:1 and 5:1. • Zero marks if the ratio is 5:1 or worse.
TOTAL	Minimum = 0, maximum = 28

[1] The table shows the 2004 questions used to compile the *Sensitivity to governance issues* variables. These questions evolve over time and some were slightly different in 2006.