



## Are Overconfident Executives More Inclined to Commit Fraud?

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No one makes it to the top ranks of corporate management without a healthy amount of self-assurance. Confidence underlies decisive, strong leadership, but does overconfidence lead managers to cross the line and commit fraud?

New Wharton research that combines results from the psychology literature and SEC fraud enforcement records is examining how top executives might be inclined to engage in fraudulent behavior because they are overconfident about their firm's ability to perform in the future.

Wharton accounting professor [Catherine M. Schrand](#) and doctoral student Sarah L. C. Zechman are developing a paper titled, "Executive Overconfidence and the Slippery Slope to Fraud" that examines patterns in frauds to determine if some frauds evolve, not out of pure self-interest, but because executives are overly optimistic that they can turn their firms around before fraudulent behavior catches up with them.



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"The main question is whether we can explain fraudulent behavior using knowledge about human decision making. Some fraudulent behavior is the outcome of managers putting themselves in the position where fraud is their only choice," says Schrand. "They didn't start out thinking they would commit fraud and they were not necessarily trying to hurt anyone, but they ended up being in a position where they felt it was the only way to get out of a bad situation."

Schrand describes the path leading to fraud. An executive believes his firm is experiencing only a bad quarter or patch of bad luck. He also believes it is in the best interest of everyone involved -- management, employees, customers, creditors and shareholders -- to cover up the problem in the short term so that these constituents do not misinterpret the current poor performance as a sign of the future. In addition, he is convinced that down the road the company will make up for the current period of poor performance. It is the optimistic executive or overconfident executive who is more likely to have these beliefs.

"He may stretch the rules just a bit or engage in what you might call a 'gray area' of earnings management. But say it turns out that he was wrong and things don't turn around as expected," Schrand continues. "Then he has to make up for the prior period. That requires continuing fraudulent behavior and he has to do even more in the current quarter."

According to the paper, earnings management in a single period is likely to go undetected if performance does improve. If not, the paper states, managers continue to manage earnings in increasing amounts. "Eventually, the manager's only option is to 'cook the books' by falsifying documents and making the kinds of accounting misstatements that are prosecuted by the SEC," the authors write. An overconfident manager with unrealistic beliefs about future performance is more likely to engage in fraud "because he is less likely to correctly anticipate the need for more egregious earnings management in subsequent periods."

Fraud is becoming increasingly prevalent -- and also public. Two of the largest corporate frauds in U.S. history, Enron and WorldCom, occurred in this decade, inspiring increased attention from both the financial press and government regulators. If overconfidence is the reason, does that mean systematically biased decision makers dominate the executive ranks? "A lot of executives exhibit the characteristic of overconfidence in which their expectations are higher than what might be suggested," Schrand says.

"Overconfidence is a human characteristic that exists in the general population for certain types of people, and it is more prevalent in executives." She points out that research in psychology, along with entrepreneurial and management studies, show that people who get promoted to the top levels of a corporation are typically those with enough confidence to take chances. In addition, executives are in top positions because of past successes, and these experiences can cause them to be overly confident.

### Keeping Up the Charade

To assess whether overconfident executives are more likely to commit fraud, the researchers reviewed Securities and Exchange Commission accounting and enforcement releases (AAERs) from the 1990s and 2000s to examine patterns in companies that are engaged in fraud.

Waste Management, which in 1998 restated earnings from 1992 to 1997 by \$1.7 billion -- at the time the largest earnings restatement in corporate history -- is cited in the paper as an example. The SEC charged the company with systematic fraud in which top executives set earnings targets for each quarter and manipulated accounting, quarter by quarter, until a new chief executive officer ordered an audit of accounting practices and discovered the scheme. "The company's revenues and profits were not growing fast enough to meet these targets, so defendants instead resorted to improperly eliminating and deferring current period expenses to inflate earnings," according to the SEC. The amounts were small at first and went undetected, but they necessarily had to escalate to keep up the charade.

Schrand points to Gateway computer as another example of how fraudulent behavior can snowball over time. In the second quarter of 2000, Gateway managers began an aggressive financing program aimed at customers whose applications for credit in the company's financing program had been rejected. The SEC enforcement release says that by June 8, 2000, Gateway had generated \$10 million in such loans (referred to by Gateway as "outbound" loans). Two days later, management was considering a revised goal of originating \$20 million of the high-risk loans. When management asked one division head if he could meet his revenue target of \$975 million without the incremental revenue from the financing program, the division head responded that he was already counting on \$30 million from the program to meet his revenue target.

"The Gateway situation is very analogous to the current subprime crisis," notes Schrand. As with the sub-prime lenders, Gateway's fundamental lending activity -- the outbound loan program -- was not illegal. The problem that ensued in both cases, however, was that the risk of the lending portfolio was not adequately accounted for through reserves or adequately disclosed, and may not even have been known by managers -- in particular, overconfident managers. The outcome in both cases was unexpected losses when the borrowers defaulted.

Not disclosing the change in Gateway's credit policies probably wasn't a material misstatement at first when the program was small, but not disclosing as the program grew became a fraudulent act under SEC rules. The authors suggest that one possible explanation for Gateway's situation is that managers were overly optimistic about future prospects. They did not anticipate at the time they started the program that they would have to extend it to such a degree in order to meet future targets. If they had, they may never have started it in the first place.

The authors explore the relationship between executive confidence and fraud across industry, firm and individual variables. They found fraud is more likely in industries that are complex and undergoing rapid growth, such as high-tech. Schrand notes that the most meaningful variable in linking fraud to specific industries is high stock-return volatility.

"The sample demonstrates industry clustering in risky, dynamic, high growth industries that face significant idiosyncratic risk," the paper states. "The management literature has shown that such industries are attractive to overconfident executives." But Schrand acknowledges that such industries also may exhibit more fraud because the incentives to commit fraud are greater or because it is easier to commit it.

As further evidence, the researchers examined firm and individual characteristics to gauge the effect of overconfidence on fraud. To observe trends, the study compared firms that had been identified by the SEC as experiencing fraud to a matching sample of firms of similar size and in the same industries that had not

been sanctioned by the SEC.

### **Premeditated vs. Accidental**

In reviewing the SEC data, the researchers identified two types of fraud. One is outright, premeditated or "opportunistic" fraud. The other is naïve, almost accidental fraud that fits with the authors' idea that executives who find themselves in a jam are inclined to turn to fraud to cover up minor earnings management in prior periods.

Schrand acknowledges that many executives in the same position steer clear of trouble. "Clearly there are some executives who choose not to go down the fraud path," she explains. These managers make a rational decision and fully understand that if they mask poor earnings, they are committing fraud and that could lead to heavy penalties. Schrand says fraud may have occurred at some of the matched firms, but never reached the level that it was detected by the SEC, perhaps because managers' overconfidence paid off and a temporary problem worked itself out.

To better understand these companies, Schrand is currently examining earnings restatements. These companies, like the fraud firms, may have managed earnings briefly, but they did not continue the pattern. When the executive was in the position of requiring egregious behavior to cover up prior "gray areas" of earnings management, or earnings management in minor amounts, he didn't do it. Instead, he admitted to the earlier earnings management and then restated earnings. The behavior never escalated to fraud. "This is where we still need to do more data analysis. It may be that some executives choose to 'fess up' to minor amounts of [earnings management] rather than committing fraud and the SEC chooses not to penalize the firms that admit to minor transgressions with an official enforcement action."

On the firm level, she says, the research focuses on looking at other decisions made by firms exhibiting fraud -- including dividend policy, capital structure and tax strategy -- that also are correlated with executive overconfidence. If overconfidence is the explanation for fraud, then firms at which fraud occurred should make other decisions that reflect overconfidence. Schrand notes as an example that these firms also tend to pay lower dividends, or no dividends, compared to matching firms. "This finding is consistent with survey evidence about overconfident executives and dividend policy. The idea is that overconfident executives think they have something better to do with the money than pay it out in dividends," says Schrand.

When it comes to looking at the individual characteristics of executives likely to commit fraud, the analysis is not that statistically compelling, Schrand cautions. The psychology literature identifies individual characteristics that are related to overconfidence -- such as commitment to a project -- and characteristics of the decision maker based on his experience, such as past successes, education or military service, and even fundamental traits, such as gender. (All but one accused executive in the researchers' sample is male.) The authors note that psychological studies find men are more overconfident than women, but it is unclear whether that is because of a biological link or their experience. Measuring these types of attributes of individual executives is difficult. As the paper notes, the results are only descriptive.

The authors also looked into the role of corporate governance as a device to alter the relationship between overconfidence and fraud. They found no significant differences between the fraudulent firms and the matching sample on commonly studied governance features such as block ownership, board size and board composition. The paper says this result suggests executives at fraudulent firms were more overconfident than those at firms where fraud did not occur, and that better governance was not in place to counteract their tendency to commit fraud. Schrand adds that this result is consistent with the conclusion that the fraud firm executives are different. It is inconsistent with the idea that all executives are equally overconfident and that the non-fraud firms simply had better controls in place to contain their executives.

Just because overconfidence might lead to bad decisions in particular circumstances, it should not be the only, or even primary, consideration when evaluating executives, Schrand says, adding that a growing body of literature indicates that confident and optimistic leaders might make what would be viewed as bad decisions in certain circumstances, but overall, they also have assets that any firm needs to succeed. "Given that the firm has to hire the whole person, you might actually want somebody who exhibits this bias. But, you should recognize that the overconfidence, which has its positive aspects, can also have a

downside."

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