Introduction

All organizations face the risk of fraud. Companies dealing with situations involving financial distress face increased motive and opportunity for individuals to perpetrate frauds. The motives can be either for direct personal gain, or for indirect personal gain if companies they own face the potential for losses that could affect their incomes or wealth. Understanding the sources of risk from fraud and the methods used for its detection can help lay a foundation for effectively identifying and managing each unique investigation into fraudulent activity. Those investigations may be part of a general bankruptcy inquiry into losses of cash or assets, or they may be part of an investigation into theft(s) perpetrated by insiders, or an investigation into the effectiveness of internal controls. The findings may result in individual criminal prosecution, commercial claims, or revised management procedures and redesign of internal controls. All of these potential issues and outcomes necessitate an appreciation of:

- Forensic investigation versus general accounting methods
- Incidence rates of fraudulent activity
- Characteristics of the perpetrators of fraud
- Methods of fraud detection
- Methods used to investigate the allegation(s)
- Understanding some key lessons gleaned from experience.

This two-part article series will introduce some basic concepts regarding the potential risk from fraudulent activities and common methods of investigating allegations. Part I identifies the major types of fraud, their frequency of occurrence, and median sizes of loss. This discussion highlights key areas for insolvency professionals to consider as they investigate the causes and locations of financial distress and identify strategies and solutions. Part II focuses on fraud detection, methods used to investigate allegations of fraud, and summarizes key lessons and observations from past experience.

Forensic Accounting is Different Than Auditing

Auditing services typically include an examination of the financial accounts used to develop and report financial results, along with specified testing and analyses of transactions and tests of internal controls. These methods focus on questions of materiality, i.e. performing tests of the reported balances and financial results in order to provide meaningful interpretation and confidence in the reported amounts.

Forensic accounting services are different. The Association of Certified Fraud Examiners (ACFE) states that forensic accounting is the application of professional accounting skills in matters involving potential or actual civil or criminal
Forensic approaches target the allegations of fraud or focus on specific risk concerns. Forensic accounting usually entails taking a deeper dive into investigating individual or specific categories of financial transactions. Typically, forensic accounting seeks to understand the nature of transactions involved in an allegation and employs a targeted test approach to identify, verify, and evaluate fact patterns. This contrasts with an auditor’s selective sampling approach, which is intended to reach conclusions about the reliability of a reported financial result or an accounting balance and whether there is a material risk that the result is not correctly reported within a reasonable degree of certainty.

Fraud examinations apply methodologies designed to resolve allegations of fraud through obtaining evidence, taking statements, writing reports, testifying to findings, or otherwise assisting in the detection and prevention of fraud. Examinations and investigations are generally custom designed to address each unique situation or issue. Most fraud examinations include forensic accounting, but not all forensic accounting involves fraud examination. Methodologies and approaches are selected based on their relevance to the questions raised. Each examination or investigation will be unique; no two are alike. Proactive management of an investigation should respond to new findings in order to help ensure that the investigation accounts for new facts that are uncovered and new theories that may emerge.

**Forensic Accounting Applications**

Forensics are performed in a wide variety of contexts. Each of these situations will require different approaches, although some common techniques may be applied. Some typical contexts include:

- Allegations of actual and constructive fraud
- Arbitration and mediation
- Post-closing acquisition disputes
- Breach of fiduciary duty claims
- Calculation of commercial damages and lost profits
- Bankruptcy litigation
- Breach of contract disputes
- Shareholder disputes
- Intellectual property disputes and valuations of trade names and trademarks, patents, contractual and franchise rights, customer lists, and non-compete agreements.

Some specific examples include:

- Evaluation of ineffective internal controls
- Fraud related to the unauthorized use of loan proceeds
- Misappropriation of bank deposit account funds
- Fraud in connection with contractual obligations under an asset purchase agreement
- Falsification of financial statements
- Misappropriation of corporate assets
- Corruption
- Fictitious vendors and employees
- Occurrence of unexpected operating losses triggering loan covenant defaults
- Purchasing manager collusion with vendors
- Inventory shortages and other irregularities
- Filing of fraudulent warranty claims to manufacturers
- Employee benefits transactions
- Asset transaction post-closing disputes, i.e. working capital disputes
- Fraudulent billings
- Control failures.

**Annual Losses From Fraud**

The incidence rates of fraudulent activity are constantly evolving. The annual losses from fraud are staggering. ACFE’s *Report to the Nations: 2018 Global Study on Occupational Fraud and Abuse* analyzed 2,690 cases of occupational fraud in 125 countries occurring between January 2016 and October 2017. ACFE concluded that organizations lose an estimated 5% of revenues to fraud in any given year, representing an estimated global fraud loss of nearly $4 trillion. The median loss per fraud in 2017 was $130,000 worldwide, and the median loss per fraud in the U.S. was $108,000. Overall, 22% of cases involving $7 billion in total losses had individual losses greater than $1 million each.

One important reason that losses from individual occurrences can be substantial involves the time to detection. The median duration of fraud until it is detected typically spans 16 months after the fraud commenced. Employee theft is alleged to have caused more businesses to go into bankruptcy than any other crime.

**Classifications of Fraud**

Legal professionals, the ACFE, and others have classified frauds into three primary categories: corruption, asset misappropriation, and financial statement fraud.

- **Corruption** involves conflicts of interests (purchasing schemes, sales schemes), bribery (invoice kickbacks, bid rigging), illegal gratuities and economic extortion.

- **Financial statement fraud** encompasses net worth/ net income overstatements (timing differences, fictitious revenues, concealed liabilities and expenses,
improper asset valuations, and improper disclosures) and net worth/net income understatements (timing differences, understated revenues, overstated liabilities and expenses, improper asset valuations, and improper disclosures).

- **Asset misappropriation** is a broad category involving cash (theft of cash on hand and theft of cash receipts, fraudulent disbursements), inventory, and all other asset (misuse, larceny). Fraudulent disbursements can range from billing schemes to payroll and expense schemes to check tampering and register disbursements. Theft of cash receipts includes skimming of sales, receivables, or issuing false refunds, and includes cash larceny.

### Frequency and Loss

The frequency of occupational frauds varies. The ACFE reported that more than 70% of the frauds in 2017 occurred at for-profit organizations, with 42% of victim organizations comprising private companies and 29% comprising public companies. Private companies suffer the greatest median losses and have the greatest share of frauds. But, although not-for-profit companies have lower share and lower median losses, their abilities to withstand those losses may be more limited since many are smaller organizations. (See Exhibit 1.)

The 2016 and 2018 ACFE Report to the Nations compared the frequency and median losses from the three categories of fraud. The 2016 results showed that while asset misappropriation represents approximately 85-90% of the overall frequency of fraud the median losses are approximately $120 thousand. In contrast, the median loss is much larger at $0.8-1.0 million for the lower occurring rates of 9-10% for financial statement fraud, representing a different type and severity of risk. Thus, risk evaluation should consider both occurrence rates and severity of loss to form a balanced assessment. The results in 2017 follow similar trends. (See Exhibits 2 & 3.)

A balanced assessment of risk reflects the combined exposure to frequency and median loss. For example, when suspecting asset misappropriation frauds, focusing on billing or check and payment tampering schemes may provide an approach that recognizes both the heightened frequency and the heightened losses per occurrence, meaning these schemes may represent the greatest categories of risk. (See Exhibit 4.)

### Complexity is Rising Across Different Environments

Frauds are becoming increasingly complex. The 2016 ACFE Report to the Nations stated that perpetrators engaged in at least one other form of fraud in 35% of asset misappropriations, 80% of financial statement frauds, and 76% of corruption schemes. In 2018, the ACFE reported
that incidences of asset misappropriation combined with corruption schemes during 2017 accounted for 23% of frauds involving more than one type of occupational fraud. (See Exhibit 5 on p. 26.)

Different size organizations face different risks for fraud. As of 2017, smaller organizations with less than 100 employees experienced 32% of fraud cases involving corruption, while larger organizations with more than 100 employees experienced more than 43% of fraud cases involving corruption. Billing, check tampering, expense reimbursements, skimming, and financial statement fraud all occur with far greater frequency in smaller firms compared to larger firms.

Frequencies of fraud also vary widely by industry. The 2018 ACFE Report to the Nations provided a heat map of the relative risks by types of occupational fraud and industry. (See Exhibit 6 on p. 26.) Developing an understanding of the frequency of specific fraud schemes within different industries can help target the risks of fraud and target the scope of investigatory work. Organizations can also assess and design controls to safeguard against the schemes that pose the most significant threats. The heat map shows the relevant risk for each category of occupational fraud in every industry that had at least 50 reported cases in ACFE's study. Boxes are shaded from light to dark red based on the respective level of occurrence, with darker boxes indicating higher-frequency schemes.

Perpetrators of Fraud

The classic “fraud triangle” states that individuals are motivated to commit fraud when three elements come together: (1) some kind of perceived pressure, (2) some perceived opportunity, and (3) some way to rationalize the fraud as not being inconsistent with one’s values.¹ Some of the common reasons for employees to commit fraud include: the employee has a financial need, the employee is able to rationalize the act of fraud, the employee has opportunity, there is a lack of internal controls, authority/power is concentrated and unchecked, and there is a lack of consequences.

Personal perspectives drive perceptions of whether a crime occurred or is underway. Corporate crime involves personal context; i.e., whether the accused knew their actions were illegal and whether the fraudulent behavior is considered business as usual in that industry. Many things that appear greedy or selfish in hindsight are not illegal, and many actual crimes occur when valid business practices edge beyond what the law allows. White-collar criminals rarely pause to think about the outcomes or potential victims of their decisions.²

¹ Albrecht, W. Steve, Iconic Fraud Triangle Endures, Fraud Magazine, July/August 2014.
Criminal perspectives are also personal. Most lack remorse regarding either their actions or the harm those actions had caused. Questions of morality are rendered irrelevant when the pressure is on. The ends can justify the means: such as whether the fraud was seen as helping people and an attempt to ultimately do the right thing. Criminals generally do not think they will be caught. Often, many smaller instances accumulate and compound, creating added pressure to now “fix” or “cover” the crime. Criminals may also distance themselves from their crimes and victims, making the acts more impersonal.3

There is a notable correlation between: (1) level of fraudster and size of fraud/duration of fraud, and (2) tenure of fraudster and size of fraud. The ACFE reported that while owners/executives committed only 19% of the frauds in the study, those schemes resulted in a median loss of $850,000 each in 2017. The ACFE found that 65% of owner/executive frauds involved corruption schemes and 27% of owner/executive frauds involved financial statement frauds. Third party detection of these schemes is difficult. Only 1 in 8 owner/executive frauds are detected by outside auditors or law enforcement, and non-owner/executive fraud detection is even rarer at 1 in 25. Frauds that go undetected for longer periods tend to be more costly.

A significant correlation between authority and fraud loss has been found in every edition of the ACFE’s Report to the Nations since 1996. In 2017, ACFE found that 70% of corruption cases were perpetrated by someone in a position of authority: 38% by a manager and 32% by an owner/executive. The median time to detection also increases with authority. The median months to detection for employees of 12 months, grows to 18 months for managers, and 24 months for owner/executives. Fraud losses also tend to increase based on the length of time the perpetrator worked for the victim organization. Perpetrators with less than one year of tenure caused a median loss of $40,000, while those with more than ten years’ experience at the victim organization caused a median loss of $241,000, more than six times as high. (See Exhibit 7.)

Risks vary by department and opportunity. Overall, 77% of the occupational frauds in

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Exhibit 5: Median Losses From Occupational Frauds

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>Asset Misappropriation &amp; Corruption</th>
<th>Asset Misappropriation Only</th>
<th>Corruption Only</th>
<th>All Three Categories</th>
<th>Financial Statement Fraud Only</th>
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</thead>
<tbody>
<tr>
<td>Banking and financial services</td>
<td>338</td>
<td>14%</td>
<td>16%</td>
<td>33%</td>
<td>35%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>261</td>
<td>9%</td>
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<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>Government and public administration</td>
<td>184</td>
<td>10%</td>
<td>14%</td>
<td>10%</td>
<td>24%</td>
</tr>
<tr>
<td>Health care</td>
<td>140</td>
<td>10%</td>
<td>10%</td>
<td>25%</td>
<td>40%</td>
</tr>
<tr>
<td>Retail</td>
<td>104</td>
<td>13%</td>
<td>13%</td>
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<td>23%</td>
</tr>
<tr>
<td>Education</td>
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<td>9%</td>
<td>21%</td>
<td>36%</td>
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<tr>
<td>Insurance</td>
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<td>6%</td>
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<td>27%</td>
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<tr>
<td>Energy</td>
<td>85</td>
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<td>25%</td>
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<tr>
<td>Construction</td>
<td>83</td>
<td>10%</td>
<td>8%</td>
<td>10%</td>
<td>29%</td>
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<tr>
<td>Transportation and warehousing</td>
<td>79</td>
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<tr>
<td>Food service and hospitality</td>
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<tr>
<td>Technology</td>
<td>63</td>
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<td>16%</td>
<td>20%</td>
</tr>
<tr>
<td>Religious, charitable, or social services</td>
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<td>22%</td>
<td>5%</td>
<td>29%</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>50</td>
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<td>6%</td>
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<td>25%</td>
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</table>

Source: ACFE 2016 Report to the Nations, Fig. 6.

Exhibit 6: Common Occupational Fraud Schemes By Industry

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>Cases</th>
<th>Billing</th>
<th>Cash Bonuses</th>
<th>Cash on Hand</th>
<th>Decreased Budgeting</th>
<th>Deception</th>
<th>Expense Reimbursement</th>
<th>Financial Statement Fraud</th>
<th>Money Laundering</th>
<th>Parental Disguise</th>
<th>Payroll Disguise</th>
<th>Racketeering</th>
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Source: ACFE 2016 Report to the Nations, Fig. 16.

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3 Ibid.
ACFE’s study came from eight departments: accounting, operations, sales, executive/upper management, customer service, administrative support, finance, and purchasing. The 2018 ACFE Report to the Nations provided a heat map of the relative risks by types of fraud and department based on the relevant frequency for each category. (See Exhibit 8.) Boxes are shaded from light to dark red based on the respective level of occurrence, with darker boxes indicating higher-frequency schemes. Developing an understanding of the frequency of specific fraud schemes within different departments can help target the risks of fraud, allowing the organization and the investigator to focus the scope of any inquiries on key hotspots. Organizations can also assess and design anti-fraud internal controls to safeguard against the schemes that pose the most significant threats to specific departments.

Part I of this two-part article focused on identifying types of fraud, its frequency of occurrence, and sizes of loss. Part II will focus on fraud detection, methods used to investigate allegations of fraud, and summarize key lessons and observations from this article series.