



# CONSIDERING RISK

A review of traditional audit universe risk-rating factors in light of knowledge gained from internal control deficiency disclosures.

## IN AUDIT PLANNING

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**T**here are plenty of reasons to criticize the Sarbanes-Oxley Act and the related Public Company Accounting Oversight Board Auditing Standard No. 2. But whatever the criticisms, one thing is certain: there is more information in the public domain about internal controls over financial reporting today than at any time in history. Some of the information comes from the many hundreds of internal control deficiencies reported to date by accelerated filers.

Analyzing this data to determine what kinds of companies reported deficiencies, how deficiencies were detected, what business processes the deficiencies related to, and what accounts and assertions they impacted provides great insight into how controls work in modern public companies.

Knowledge gained from the deficiency disclosures made public to date may challenge internal auditors' assumptions about where risk lies and how to better prioritize an audit universe. Big risks can lurk under small rocks, and the indicators of big risks are often ignored in audit planning.

### What the IIA standards suggest for risk rating an audit universe

Internal audit professionals are guided in establishing a risk-based audit universe by the Institute of Internal Auditors (IIA) Professional Practices Framework and related practice advisories. Professional Practices Framework Performance Standard 2010, "Planning," states, "The chief audit executive should establish risk-based plans to determine the priorities of the internal

audit activity, consistent with the organization's goals."

### How have internal auditors performed in detecting and reporting deficiencies?

A recent study published by the Financial Executives Research Foundation (FERF), *Control Deficiency Reporting: Review and Analysis of Filings During 2004*, analyzes the control deficiency disclosures made by 329 companies in their various SEC filings from November 1, 2003, to October 31, 2004.<sup>1</sup> It analyzes more than 950 such disclosures in a number of important categories to identify trends to help users of financial statements better understand the nature of control deficiency reporting made by SEC registrants.

Management and internal auditors appear to have performed poorly in detecting and reporting deficiencies. Evidence from these public disclosures suggests that only about 28 percent of companies were proactive in bringing reportable deficiencies to the attention of their audit committees or external auditors. This strongly suggests that internal auditors either used risk prioritization models that routinely scoped out high-risk areas for internal control deficiencies or did not detect or report deficiencies that were found. Exhibit 1 shows who identified and triggered a disclosure at these companies.

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## EXHIBIT 1 Trigger to Disclose by Market Cap

Company Type	Who Identified and Triggered a Disclosure?				
	Auditor	Management	Both*	Reported Only Due to Auditor Change	Other Reasons
Small Cap (<\$250M)	57%	26%	10%	7%	0%
Mid Cap (>\$250M <\$1B)	54%	22%	13%	6%	5%
Large Cap (>\$1B)	26%	44%	23%	3%	4%

\*Includes auditor as well as company management

n=202 companies

Source: Parveen P. Gupta and Tim Leech, *Control Deficiency Reporting: Review and Analysis of Filings During 2004* (Florham Park, NJ: Financial Executives Research Foundation, 2005): 20 (Table 6).

A different study by Glass, Lewis & Co. also analyzed 2004 deficiencies and early 2005 disclosures.<sup>2</sup> That study suggested:

- The number of companies disclosing material weaknesses (the most severe type of control problem) increased 87 percent (to 586 companies) in the first four months of 2005 over the entire year of 2004 (313 companies).
- Only 43 percent of companies that received a qualified opinion on internal control effectiveness had previously cautioned investors that deficiencies existed, and 94 percent had certified their internal controls as effective as recently as the quarterly filing before the annual report was issued with a qualified opinion.
- Internal control deficiency disclosures increased 39 percent, from 462 companies in 2004 to 642 through May 2, 2005.

The trend in reported deficiencies is alarming. While individual companies and their internal auditors may fail to detect or report some internal control deficiencies in audits they conduct, the rising trend in the total number and increasing materiality of deficiencies, the number of companies reporting deficiencies, and their late and sudden disclosure suggest that the problem is a systemic one. Deficiencies are simply not being found and reported by management. Management and internal

auditors may be looking in the wrong places. Are there fundamental flaws in the internal audit profession's audit prioritization and planning standards and practices?

### How do internal auditors prioritize audits?

The IIA provides practice advisories to assist in the interpretation and implementation of the Professional Practices Framework. Practice Advisory 2010-2, "Linking the Audit Plan to Risk and Exposures," suggests that the following risk factors, among others, should be considered:

- dollar materiality;
- asset liquidity;
- quality of internal controls;
- degree of change or stability;
- complexity; and
- management competence.

### Are these the right risk factors?

Individual internal audit departments are free to establish their own prioritization frameworks, and many do. However, a prima facie case can be made that internal auditors may have missed the boat on finding and reporting internal control deficiencies. It is worth examining whether the risk factors suggested in Practice Advisory 2010-2 can be supported by an analysis of reported deficiencies in the FERF study. In

other words, would the publicly reported internal control deficiencies have been found if these risk factors had been used?

**Dollar materiality as a risk factor: Are larger entities riskier?** Internal audit departments frequently take into account the dollar materiality of auditable entities or processes in determining audit risk. If dollar materiality was a significant factor in internal control deficiencies, one should expect to see larger companies with more deficiencies or at least more material weaknesses. Does the evidence support this risk factor?

According to the FERF study, “[I]n our sample about 32% of the companies are small cap (<\$250M), 17% are mid cap (>\$250M < \$1B), and 13% are large cap (>\$1B). For this sample, we find that when it comes to disclosing internal control weaknesses, size is relevant because the larger a company’s market cap, the more control deficiencies it reports. For this sample, on average, large cap companies disclosed 3.71 control deficiencies, compared to 2.51 for small caps and 2.71 for mid cap companies.”

It should not be surprising that large cap companies report more internal control deficiencies. Their larger size would suggest that more deficiencies would be expected. The real issue is how much weight

to give dollar materiality as a risk factor. The average large cap company (>\$1B) in the sample reported 3.71 deficiencies and the average small cap (<\$250M) reported 2.51 deficiencies; the reporting rate is far less than the size ratio would suggest. The relationship between dollar materiality and risk is disproportionate to size. As a risk factor, dollar materiality seems to have an inverse relationship. Entities or processes with low dollar materiality bear a disproportionate amount of disclosure risk. Billion-dollar companies do not report four times as many deficiencies as are reported by companies one quarter as large. Clearly dollar materiality should be a factor, but its weight should be determined by other factors.

**Asset liquidity as a risk factor: Do liquid assets attract internal control deficiencies?** Many internal audit departments are charged with ensuring the safeguarding of assets and preventing fraud and theft. Liquid assets are perceived to be particularly vulnerable to fraud and theft. If liquid assets were truly at risk, one would expect to see a large number of deficiencies related to cash and equivalents and certain inventories and one would expect the existence assertion to be related to many reported deficiencies. Neither has proven to be true.

**EXHIBIT 2** Deficiency Disclosure by COSO Categories

COSO Element	Market Cap		
	Small Cap (<\$250M)	Mid Cap (>\$250M <\$1B)	Large Cap (>\$1B)
Control Environment	58%	54%	48%
Risk Assessment	1%	1%	1%
Control Activities	6%	9%	7%
Information & Communication	5%	5%	6%
Monitoring	21%	18%	15%
Unclear Descriptions	9%	13%	22%
Total	100%	100%	100%

n=569 control deficiencies

Source: Parveen P. Gupta and Tim Leech, *Control Deficiency Reporting: Review and Analysis of Filings During 2004* (Florham Park, NJ: Financial Executives Research Foundation, 2005): 24 (Table 9).

### EXHIBIT 3 Classification of 899 Companies Disclosing Material Weaknesses

Material Weakness Classification	2004	2005	Total	% of Total
Financial Systems & Procedures	209	322	531	36.3%
Personnel Issues	132	208	340	23.2%
Documentation	56	64	120	8.2%
Revenue Recognition	58	86	144	9.8%
Lease Accounting	5	80	85	5.8%
Tax Accounting	33	103	136	9.3%
Other	38	70	108	7.4%
Total	531	933	1,464	

Source: Glass Lewis, Company Filings. Note: Disclosures from Jan. 1, 2004 through May 2, 2005.

Source: Leah Townsend and Mark Grothe, *Control Deficiencies Trend Alert* (Glass, Lewis & Co., June 24, 2005): 6 (Table 5).

According to the FERF study, “[W]e find the following accounts, in the order mentioned, as most often involved when it comes to internal control weakness: accounts receivable, sales, inventory, cost of goods sold, accrued expenses/reserves, and selling, general & administrative.” Furthermore, according to an analysis of related assertions in the FERF study, the existence assertion was the one least likely to be attributed to a reported deficiency in the sample.

There is no doubt that liquid assets can be lost or stolen. But on the whole they have not proven difficult to control and their existence has not proven to be a significant risk factor for internal control deficiencies. Internal audit departments may in fact be misdirecting resources by focusing too much attention on liquid assets.

**Is the quality of internal controls a risk factor?** Internal auditors tend to consider the quality of internal controls as a significant risk factor. In doing so, internal auditors often use the COSO internal control framework component of control activities as their benchmark in assessing the existence and quality of internal controls. One would expect then that a significant number of control deficiencies could be clas-

sified as to control activities. In other words, broken or missing control activities, if they are truly important, should be behind a significant number of reported control deficiencies in the FERF study sample.

This has not proven to be true. Where sufficient information made it possible, the authors of the FERF study classified each control deficiency into its related COSO framework component. Many deficiencies were so poorly reported as to defy classification, but of those that were classified, control activities were a relatively minor category. As can be seen in Exhibit 2, across the range of companies in the sample, between 6 percent and 9 percent of reported deficiencies were attributable to control activities.

If the quality of internal control is an important risk factor, one should expect missing or broken control activities to be associated with a significant number of control deficiencies. If the lack of evidence of significant absences of or breakdowns in control activities suggests they are, in fact, present and working well in most companies, where are all the deficiencies coming from?

Just how important are control activities as a risk factor? If internal auditors are

**EXHIBIT 4** Sample Composition by Industry

Industry	Number of Companies
Software & Programming	29
Semiconductor	19
Biotechnology & Drugs	16
Communications Services	15
Communications Equipment	13
Medical Equipment & Supplies	10
Computer Services	10
Healthcare Facilities	9
Aerospace & Defense	7
Business Services	7
Real Estate Operations	7
Oil & Gas Operations	6

Source: Parveen P. Gupta and Tim Leech, *Control Deficiency Reporting: Review and Analysis of Filings During 2004* (Florham Park, NJ: Financial Executives Research Foundation, 2005): 14 (Table 3).

**EXHIBIT 5** Control Deficiencies by Business Processes or Cycles

Processes/Cycle	% of Control Deficiencies
Financial Reporting Including Period-End Reporting	41%
Revenue and Accounts Receivables	17%
Inventory and Production	9%
Information Systems	5%
Treasury and Risk Management	5%

Source: Parveen P. Gupta and Tim Leech, *Control Deficiency Reporting: Review and Analysis of Filings During 2004* (Florham Park, NJ: Financial Executives Research Foundation, 2005): 34 (Table 12).

using the existence or absence of control activities as evidence of the quality of internal control in risk rating their audit universe, they may be placing more confidence

on these controls than evidence warrants. Other COSO framework components seem to be much better predictors of risk.

**Does the evidence support degree of change or stability as a risk factor?** It seems logical to attribute extra risk to a turbulent, rapidly changing business environment, but the rate of business change or stability is not among the deciding factors in determining whether a control deficiency exists or is reportable.

Risk assessment is the COSO framework component one would expect to see cited as a weakness if the degree of business change was a factor. Change management is part of the risk assessment component in COSO. Interestingly, risk assessment is the least cited attribute when attributing deficiencies to COSO framework components. The table from the FERF study shown in Exhibit 2 suggests that, from the description provided, only 1 percent of the deficiencies could be attributed to faulty risk assessment, let alone change management.

This appears to be an anomaly. If risk assessment practices, including change management practices, are not flawed, where are the deficiencies coming from? How can robust risk assessment not anticipate and mitigate the deficiencies before they become reportable? One answer may be that risk assessment is not identified as a significant factor not because it is being performed but because it is not being performed and in its absence, related deficiencies are not being reported or attributed correctly. The evidence is incompatible with robust risk assessment.

Are change or stability reasonable factors to include in risk rating an audit universe? It would seem likely, but the answer is not clear. What is clear is that risk assessment is not being performed adequately. A better factor than stability or degree of change to consider as a risk factor is whether the auditable entity has a risk assessment process and, if so, what are its results. Supporting this argument is a table from the Glass, Lewis & Co. study that breaks down material weaknesses by type (see Exhibit 3). According to the study, almost 60 percent of material weaknesses are attributable to financial systems and procedures and personnel. Both categories are likely to be impacted by rapid change in a busi-

ness and both suggest a lack of change management practices.

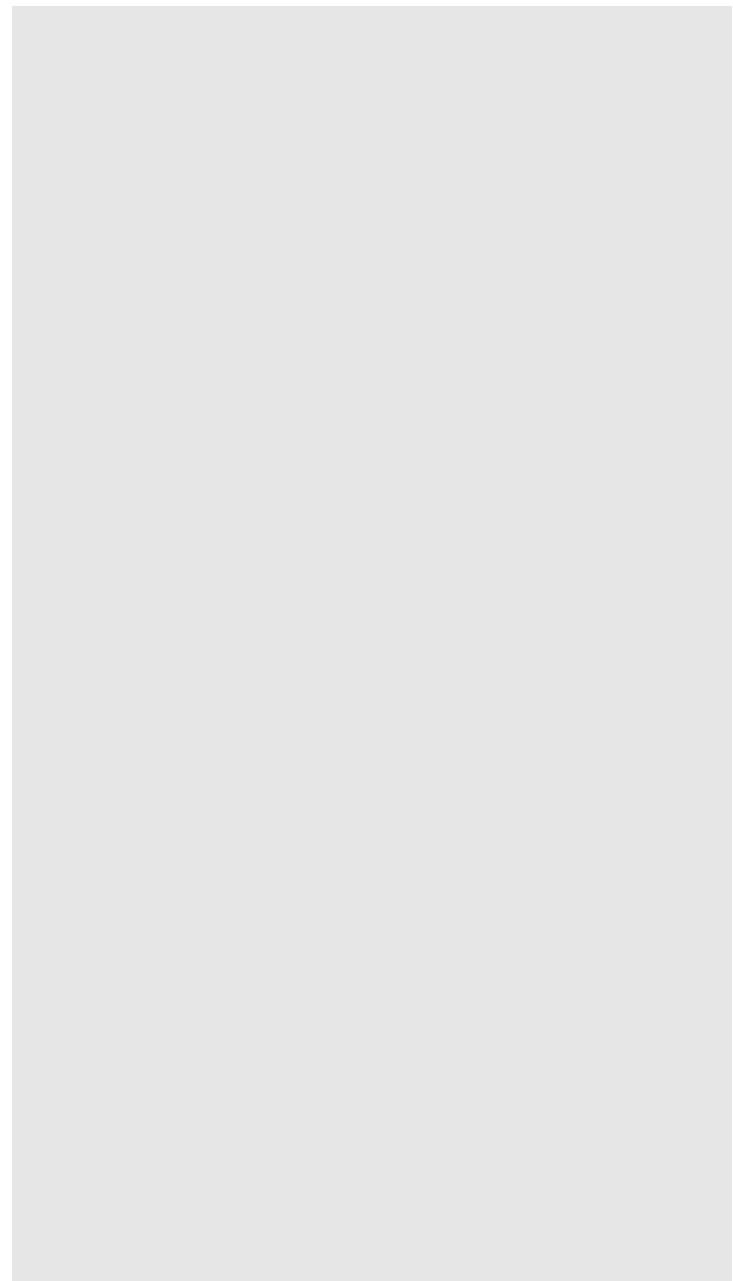
**How significant is business complexity as a risk factor?** Internal auditors often assess the complexity of their auditable locations. There is no standard definition of complexity. Some industries have complex business models, some have complex technology, and others have complex, non-standard transactions. Size alone often confers complexity, particularly if it leads to complex corporate structures or multiple locations. But size has been assessed as a risk factor and found to be a significant but not determining factor. In fact, one could argue that disclosure risk decreases with size. Smaller companies tend to have relatively more internal control deficiencies.

The FERF study assessed control deficiencies reported by industry group and produced the table that is partially excerpted in Exhibit 4. Is there anything inherently more complex about software or biotechnology than aerospace and defense or oil and gas? The case would be hard to make.

However, another picture emerges when one looks at the breakdown of control deficiencies reported by business process in the FERF study, as partially excerpted in Exhibit 5. Whatever the complexity of the industry, the vast majority of control deficiencies are concentrated in only a few business processes. Period-end reporting and revenue cycles account for 58 percent of the deficiencies in the FERF sample. Are these two processes significantly impacted by technological or operating complexity? Paradoxically, information systems, complex to many people, accounted for only 5 percent of deficiencies.

There is little convincing evidence in either study that suggests a subjective assessment of business complexity, in itself, is a reliable risk factor in prioritizing an audit universe.

**Is management competence an important risk factor?** The clearest, most resounding message from the FERF study is that the flaws in the COSO control environment component, the COSO framework component directly dealing with management competence, are most directly related to financial reporting risk. The COSO control environment component includes integrity, eth-



ical values, competence, and a range of other factors likely to affect the organization as a whole. As the table in Exhibit 2 that allocates deficiencies to COSO components indicates, about 50 percent of all reported control deficiencies can be attributed to problems with the control environment, making it potentially the single most significant risk factor in prioritizing the audit universe.

Clearly, of all the factors considered, an assessment of the control environment of a company or any of its auditable entities should play a major role in prioritizing an

audit universe. Internal control deficiencies are directly and strongly correlated to control environment scores. Soft controls do count.

Specifically, the following elements of the control environment must be considered as specific risk factors:

- integrity and ethical values;
- a commitment to competence;
- the board of directors or the audit committee;
- management's philosophy and operating style;
- the organizational structure; and
- assignment of authority and responsibility.

### What must change

The importance of accurately prioritizing the audit universe is obvious. Until now, little empirical evidence has been available to test prioritization methodologies. That is no longer true. Tested against the evidence of publicly reported internal control deficiencies, many traditional risk factors look extremely questionable at best. At worst they are causing valuable internal audit resources to be misdirected.

Management and the internal audit profession were caught off guard by the Sarbanes-Oxley Act. Year-one compliance

is over for most companies. The time is right to reexamine traditional practices.

Standard internal audit prioritization models missed far too many financial reporting risks. They may be missing other risks as well. The IIA has a leadership role to play in this area. Research is required to identify verifiable risk factors by industry, by process, and by risk type.

The quality of public control deficiency reporting is so poor that allocation of control deficiencies to COSO components, business processes, assertions, and accounts is not completely reliable. Far better reporting standards are required to improve the quality of financial reports. Internal auditors have a lead role to play in developing internal control deficiency reporting standards.

Control deficiencies are evidence of how well internal control is working. Root cause analysis of internally reported deficiencies and insight into how control deficiencies are detected and how they impact the entity are essential if internal auditors want to refine their audit planning and prioritization models. ■

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#### NOTES

<sup>1</sup> Parveen P. Gupta and Tim Leech, *Control Deficiency Reporting: Review and Analysis of Filings During 2004* (Florham Park, NJ: Financial Executives Research Foundation, 2005).

<sup>2</sup> Leah Townsend and Mark Grothe, *Control Deficiencies Trend Alert* (Glass, Lewis & Co., June 24, 2005).