Five Common Spreadsheet Risks and Ways to Control Them

Spreadsheets are seldom a cause for concern or suspicion during internal audits, even though they should be — spreadsheets can be easily changed, may lack certain internal control activities, and are vulnerable to human error. Management may believe there is little reason for concern because they have used the same spreadsheet software for many years. However, it is important for management to be aware of the different kinds of risks associated with spreadsheet use, five of which are explained below.

RISK 1: UNSKILLED USERS

Lack of adequate training can result in poor to mediocre spreadsheet results, such as improper referencing, linking to other spreadsheets, or using inaccurate formulas to master complex calculations.

The Committee of Sponsoring Organizations (COSO) of the Treadway Commission's *Internal Control Over Financial Reporting* framework requires a commitment to competence, which is an important aspect of internal control. Spreadsheet training is one way to help achieve internal control. For instance, long-term learning plans that incorporate spreadsheet training will help to make sure users are up-to-date with the latest version of the spreadsheet in use. Free Excel online training is available from Microsoft's Web site.

Common Spreadsheet Controls

1. Training users.
2. Setting documentation standards.
3. Establishing data entry procedures.
4. Using good security measures.
5. Backing up data frequently.

RISK 2: LACK OF GUIDELINES FOR SPREADSHEET PREPARATION

If the policies and procedures to mitigate spreadsheet risks are inadequate, errors will become more common and lack of consistency will show up in internal control audit reports. Therefore, the style, content, and accountability for spreadsheets should be documented in the organization's policies and procedures or in the spreadsheet used.

To this end, documentation is a best practice to explain how spreadsheets are used. Organizations need to explain — in common language within the workbook file, on the worksheet (e.g., at the top of the page), or in written policies and procedures — the spreadsheet's purpose and intended functions so other users can read the instructions before using it. If documentation is kept separately (e.g., a policies and procedures document), it should identify the style and organization-wide requirements for using spreadsheets.
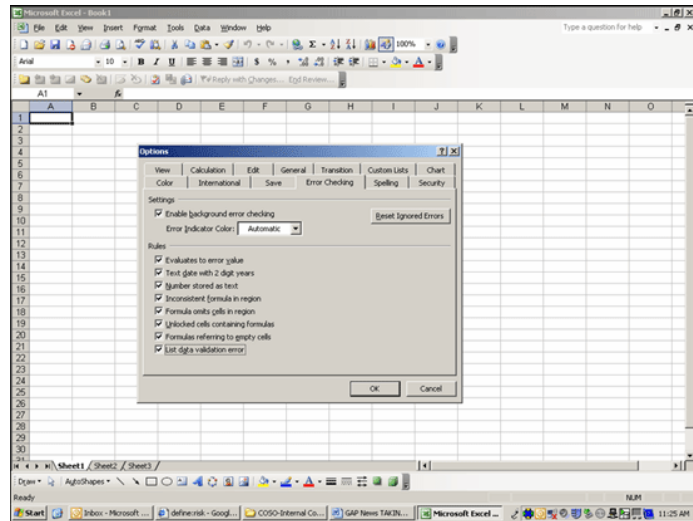
Also, an inventory of spreadsheets used to prepare complex tasks or financial statements will help ensure where adequate documentation is needed. In addition, documentation needs to be kept up-to-date and include who was responsible for preparing or updating the spreadsheet or policy.

RISK 3: DATA ENTRY AND RECYCLING

People are creatures of habit, which is one reason why spreadsheets are reused from year to year. Unfortunately, after cutting and pasting information, the spreadsheet might not work the way it did before — formulas can be damaged, links can be broken, or cells can be overwritten.

To help mitigate spreadsheet recycling risks, personnel need to make sure the information added to the spreadsheet is as good as the expected output by:

Using Microsoft Excel's data verification tool to avoid errors

- Saving input data separately from the active spreadsheet used for calculations.
- Using a control total (i.e., a result obtained by subjecting a set of data to an algorithm to check the data at the time the algorithm is applied) to prevent errors in formulas totaling columns of data, numbers, or dollars.
- Using self-checks, like a hash or batch total, to verify that formula results are accurate.
- Using an automatic tool to stop errors from creeping into spreadsheets.
- Verifying that spreadsheet templates are not changed accidentally by using password protection.

RISK 4: SPREADSHEET ERRORS

Phone calls, chatty coworkers, and coffee breaks are common reasons personnel make data entry errors such as skipped entries or transposed numbers. A 2004 PricewaterhouseCoopers study shows that up to 91 percent of sophisticated spreadsheets contain errors. Unfortunately, if auditors know there are spreadsheet errors, so do fraudsters. For example, inadequate spreadsheet controls may lead to errors, misstatements, and possibly fraud.

One way to reduce the number of spreadsheet errors and to help mitigate fraud is to limit access to files. A spreadsheet is no different than other software, so access to spreadsheet information should be limited to persons on a need-to-know basis, which can help to deter fraudsters. Furthermore, storing important spreadsheets in an access-limited server can protect information from prying eyes. If open-access file storage is used, implementing password-limited access makes sense with these spreadsheets. Locked access to certain cells also can protect valuable formulas from tampering.

RISK 5: LOSS OF DATA

Failure to back up data is a common and sometimes fatal error that may result in the loss of hours of data entry for computer users, which applies equally to all software tools including spreadsheets. Hardware and software breakdowns do occur from time to time, and backing up regularly and frequently is the best prevention for the spreadsheet user. As a general rule, it's always easier to retrieve information from a backup file than redo the entire spreadsheet. The auto-save function in the spreadsheet software is a reliable means for preventing accidental loss of data in the event of errors or system malfunctions.

BALANCING RISKS WITH CONTROLS

Whether an organization is large or small, spreadsheets were an overlooked risk by many people. Flexibility, ease of use, and transferability are a few of the advantages of electronic spreadsheets. Yet, the same features that make spreadsheets useful also make them risky. The five examples

in this article emphasize the need for personnel to treat spreadsheets with skepticism and to instill controls to mitigate these risks as they relate to their own use of the tool.