

## Overcoming Excel Spreadsheet Inertia

*Ubiquitous Software has Drawbacks in Financial Services Reporting*

By James Adams, April 27, 2011

In 1687, Isaac Newton published a three-volume treatise which revolutionized humanity's understanding of the physical world. Book One of Newton's *Principia* contains Newton's three laws of motion, which describe the responses of physical bodies to forces acting upon them. Sir Isaac expressed the first law as follows: "Every body persists in its state of being at rest or of moving uniformly straight forward, except insofar as it is compelled to change its state by force impressed." Physical objects are heavily inclined to preserve their current status.

While Newton's studies were devoted to exploring phenomena in the natural world, the inertia principle certainly applies to human behavior as well. That is, individuals and organizations tend to resist changing their course until powerful external factors compel them to do so. In the case of financial institutions, the global credit crisis of 2008-2009 and consequent regulatory reforms present a powerful impetus to change organizational behaviors and processes.

As the economy was expanding at a torrid pace during 2003-2007, asset growth may have been the primary focus of most commercial banks. Given the considerable loan impairments and business failures subsequently experienced (not to mention elevated unemployment levels), risk management is the topic du jour and will likely remain so for the foreseeable future. Outside forces—heightened credit risks and regulatory scrutiny—have caused bankers to reconsider their approaches to underwriting and risk management. However, one conspicuous form of technological inertia has remained largely unaddressed.

Microsoft Excel is a user friendly spreadsheet application that is well-suited for an individual or small number of people to process a modest amount of data. Its familiarity and ubiquity (nearly all PCs and laptops contain the application) make Excel a popular choice for managing data. Spreadsheets can be readily customized by loan officers and other commercial bank users without additional assistance from IT personnel.

Over the past two decades, bankers have become heavily reliant upon Excel for underwriting decisions as well as risk-management reporting. Despite its popularity, the spreadsheet approach entails a considerable number of drawbacks and limitations in both endeavors. Below, we consider the program's deficiencies as they pertain to loan underwriting and risk management.

General limitations. Excel is a spreadsheet application, not a database. Information stored on Excel spreadsheets is not centrally warehoused, rendering it difficult to access via ad

hoc queries. Further, as many spreadsheets contain a fair amount of manually entered information, data integrity is a perennial concern.

Underwriting limitations. While report customization may be advantageous to individual users, processing data in an idiosyncratic manner often becomes a liability. If borrower financial data is not centrally stored and readily accessible to multiple users, chief loan and risk officers may have difficulty in verifying that underwriting standards are being consistently applied.

Loans made to borrowers with multiple business interests and loans supported by a guarantor require a global cash flow analysis. As Sageworks' Vimal Patel has noted, proper global cash flow analysis "involves integrating multiple partnership and corporate tax returns, business financial statements, K-1 forms, and individual tax filings." Excel is ill-equipped to readily integrate all the pertinent information from these disparate sources.

Risk-management limitations. Excel is not designed to process large volumes of data. A comprehensive assessment of loan portfolio risk factors requires strenuous computations, which cannot be adequately handled by spreadsheets.

Although data from other applications can often be imported into Excel, the program is not conducive to easily exporting data to other applications. Any impediments to data sharing are a major constraint to thoroughly evaluating portfolio risks.

Unlike the inanimate subjects of Newton's experiments (think falling apples), banks' courses are not wholly dependent on external stimuli. Management decisions—especially those pertaining to information technology practices—have tremendous effects on profitability and balance sheet health.

As bank examiners and officers become increasingly conscious of the limitations of an Excel-based approach to underwriting and risk management, the demand for alternative solutions will continue to rise. Undoubtedly, other software applications will soon enable bankers to overcome spreadsheet inertia and prudently change their direction.

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