Forensic Accounting, Business Valuation and Consulting

In This Issue:

From the Editor:

Happy New Year! As we welcome 2014, we want to take the time to thank the many people who make our success possible. In March of this year, we will celebrate our 29th Anniversary. Our longevity is based not only on our expertise in business valuation, forensic accounting and consulting, but also by staying at the forefront of many critical business issues. In this issue, we bring you excerpts from previous articles relating to these critical business issues. To read the full articles and learn more about the many services The Financial Valuation Group can provide, please visit us on the web at www.fvgfl.com.

Statistical Inference in Damage Analysis

Michael A. Crain, DBA, CPA/ABV, ASA, CFA, CFE

Introduction

Many people are uncomfortable with mathematics and, thus, they may be skeptical of what people have to say about statistical results. In contrast, because of its perceived rigor, some people grant more authority to statistical findings than sometimes deserved. Regardless of these extremes in perception, statistics is a valuable tool in the natural and social sciences as well as other areas. Its main utility is illuminating patterns not otherwise apparent in raw data. Put another way, we can obtain new knowledge by applying statistics to complex information. In medicine, for instance, statistics can show whether a drug has a particular effect or not. In agriculture, researchers use statistics to determine whether a fertilizer causes increases in crop yields. This article attempts to bring some clarity to the usefulness of statistical evidence in litigation. Some ideas in this article are simplified due to space constraints.

Summary and Conclusion

Descriptive and inferential statistics are two types of statistical methods. Descriptive statistics is relatively straightforward requiring comparatively little judgment in describing the characteristics of a particular sample. On the other hand, inferential statistics is more powerful and sophisticated. It examines a smaller group and makes inferences about the characteristics of a larger group. An alternative form studies a particular subject during one time horizon and makes inferences about the subject at another time. Despite its heavy reliance on maths, statistical inference requires judgment to properly apply it and interpret findings.

Inferential statistics traditionally has two branches: estimation and hypothesis testing. Estimation is quantitative in nature while hypothesis testing is qualitative. Estimation—which can be expressed as either point or interval estimates— answers a question like what is the parameter's value. In contrast, hypothesis testing tries to determine whether a theory or assertion is true or false at a specified confidence level, commonly 95 percent in the social sciences like economics. Moreover, statistical inference can be used in litigation for damage measurements and liability issues.

Statistical inference, simply speaking, observes data on group A and infers it on group B. It should be obvious that such inferences are reasonable only if A is representative of B. Alternatively, when studying a particular subject over two time horizons, inferred relationships from the first time period are reasonable if no important

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changes in these relationships have occurred between the time horizons.

Inferential statistics can be susceptible to undesirable data mining. There is a saying in academic research that if you torture the data long enough, it will confess something. To minimize this aspect, relationships showing statistical significance should be sensible connections between variables. For instance, a relationship between the direction of stock prices and the past Super Bowl winner is not rational, even if it historically has a statistical correlation.

Some litigation cases have data that are plentiful. Statistics may be a useful tool for such cases. Possible uses range from class action lawsuits such as employment actions where a lot of payroll records exist making information hard to interpret to lost profits damages in determining variable costs relative to lost revenues. Statistical tests might also be used to test whether an event actually caused something to change in a business such as a drop in sales or share price.

Generally speaking, statistical methods may be useful in providing stronger empirical evidence, reducing subjectivity. In the age of *Daubert*, such empirical evidence may be more reliable than alternatives. However, statistics need to be used wisely to avoid inappropriate and confusing number crunching. On the other hand, such quantitative methods might be used to test or refute experts on the opposite side.

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http://www.fvgfl.com/Editor/assets/Newsletters/newsletter-2012-001.pdf

The Pension Crises in America

Donald P. Wisehart, CPA/ABV/CFF, ASA, CVA, MST

I was honored when Ms. Gina Ramondo, the Treasurer of Rhode Island, asked me to testify to the Rhode Island General Assembly on behalf of her pension reform bill, the "Rhode Island Retirement Security Act of 2011". As I researched the issues, it became apparent that similar testimony could be repeated on behalf every state in America. All 50 states have an unfunded pension liability with certain states, like California, Arizona, Florida, Illinois, Michigan, Nevada, New Jersey, Oregon and Wisconsin in serious danger of insolvency. These states, in particular, were highlighted in the PEW Center on the States November, 2009 report, "Beyond California – States in Fiscal Peril". According to this report California takes "fiscal peril" to a whole new level. The complete article contains my testimony offerred in November 2011. Here are some excerpts of that testimony:

I am saddened by those Rhode Islanders who ignore or care little for the daunting financial burden that we will leave our sons and daughters and their sons and daughters without the pension reform we need to make today. I am dismayed by some current pension recipients who have the attitude that the pension crisis is not their problem. Many seem to feel, for example, that they are entitled to COLAs even at the risk of bankrupting the pension system.

I believe that the comprehensive pension reform bill before the House and Senate will accomplish what it has set out to do. That is, this reform will commence to 1) contain pension costs at a manageable level, 2) provide security for its present and future retirees, 3) preserve public services, and 4) significantly reduce the financial obligations left to us and to the next generations.

Moreover, I believe that this pension reform bill will, indeed, spread the burden equitably among all of us here in Rhode Island; not just the taxpayers.

Much of the resistance to this plan has been characterized as a promise broken. This is not the case. It is not a matter of promises broken; it is a result of seriously flawed actuarial assumptions and failure to report and record pension liabilities. This same type of situation currently threatens Social Security and Medicare. Both politicians and labor unions have been complacent in propagating these unrealistic assumptions. It is disingenuous for the union leaders to pretend that they did not know this problem exists. So it is not promises broken. However, I can promise you that without the concessions in COLA increases, for example, current recipients will see those COLAs swallowed up by tax increases required to support the broken system. ~~

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On the Valuation of Businesses Held by Pass-Through Tax Entities

Michael A. Crain, DBA, CPA/ABV, ASA, CFA, CFE

A strand of academic research has made its way into the business valuation community and is stimulating some new thinking for valuing businesses held by pass-through tax entities such as S-corporations and limited liability companies. Previously, an absence of empirical evidence allowing comparisons of taxing-paying entities, such as the standard corporation, with pass-through entities (PTEs) has resulted in many theoretical discussions whether a business held in a tax-advantaged entity has a higher price (i.e., "is it worth more") than the same business held in a standard entity. IRS has argued businesses held in PTEs have higher values—a lot higher. Unsurprisingly, IRS's argument would often result in higher taxes.

IRS has argued that businesses held by PTEs should be valued based on their pre-tax earnings since these entities do

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Announcements:

Valuation for Financial Reporting

Fair Value Measurement in Business Combinations, Early Stage Entities, Financial Instruments and Advanced Topics, 4th Edition

by Mark Edwards, James R. Hitchner and Michael J. Mard

Educates preparers, auditors and valuation practitioners and litigators with methodologies for identifying and valuing intangible assets and goodwill. The Book also presents fair value elements for early stage entities and financial instruments.

- Provides specific guidance for determining Fair Value in a Business Combination, including Acquisition Method, Classifying or Designating Assets and Liabilities, Research and Development Assets, and Goodwill.
- Provides guidance for determining Fair Value for Financial Instruments, including option contracts such as derivatives (forwards, swaps) and asset-backed securities such as collateralized debt obligations.
- Gives clear guidance and ASC 815-40-15 financial reporting compliance.
- Presents advanced topics in fair value including:
    - Measurement of brand value;
    - Measurement of intangible assets in ad valorem matters; and
    - Analyzing the developmental and reporting standards of all major valuation groups.

Includes a Wiley web site with checklists!

Published 2014 by John Wiley & Sons, Inc.

- Mr. Crain spoke at the American Institute of Certified Public Accountants (AICPA) Forensic and Valuation Services Conference on advanced topics for discounted cash flow models
- Mr. Crain earned a Doctor of Business Administration degree (finance) from Manchester Business School in England at the University of Manchester.
- Mr. Crain taught corporate finance to global MBA students for Manchester Business School
- Mr. Crain will teach a graduate valuation course for Florida Atlantic University

Pass-Through (Continued)

not pay any taxes. By ignoring taxes on the profits, the earnings level is a lot higher from which to value a business. Assume a business has pre-tax earnings of $100 and a price-to-earnings multiple of 5. If the firm is a tax-paying entity, its value is $300 assuming a 40% tax rate ($100 minus 40% in taxes multiplied by 5). According to IRS's argument, as a PTE this business is worth $500 ($100 multiplied by 5). The effect is a value premium of 67% above the $300 value. Intuitively, does this seem true? To many, no.

One practical approach to addressing the claim that interests in PTEs have a value premium over non-PTEs, other things being equal, is to use the findings of Dhaliwal et al. (2005). As stated, their study finds a positive relationship between dividend taxes and implied cost of equity capital. If we assume IRS's claim that PTEs have a value premium is true, one could apply Dhaliwal et al.'s (2005) findings by (1) reducing a particular PTE's cost of equity capital for the so-called avoided dividend tax that PTE owners benefit from in tax-advantaged entities and (2) reducing business cash flows for taxes on business profits since such taxes are not avoided. ~~

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Subsequent Events Revisited

Donald P. Wisehart,
ASA, CPA/ABV/CFF, CVA, MST

The reality of subsequent events hit hard on my last valuation (litigation). In reviewing this issue, I realized that it might be informative to revisit this very subject in this short article. I believe we're constantly facing this issue of subsequent events even if we're not fully aware that it is an issue!

As we have all learned, we appraisers use only that relevant information that is "known or knowable" at the valuation date. Shannon Pratt points out in a March 2002, that "reasonably foreseeable" should be added to "known or knowable". Thus today, we think of known, knowable or reasonably foreseeable. To this end, "known, knowable or reasonable foreseeable" has been supported by various business valuation standards in our industry, revenue ruling 59-60, and a host of valuation treatises. Un-

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Ft. Lauderdale, FL **Tampa, FL**

Kingston, RI

Return address:
The Financial Valuation Group
8074 North 56th Street
Tampa, FL 33617

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of New England, LLC
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Kingston, RI 02881

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fortunately, this is not necessary the view of our courts throughout this land. In their article in The CPA Journal, September 1, 1995, entitled "Impact of Post-Mortem Events on Estate Tax Valuations", Ted D. Englebrecht and John J. Masselli, authors, point out that "several recent court cases have indicated a potential willingness of the courts to relax the restrictions on the use of post-mortem facts and circumstances in valuation cases. This article is now 18 years old!

So why do we appraisers differ with those judges? The answer to this question is contained in a superb article published by The Value Examiner, May/June 2006, written by Michael J. Mard, CPA/ASA, ABV, Christopher Mercer, ASA, CFA, and LuAnne Tanner, entitled "Subsequent Events Must Be Considered". The article states: "Courts make their decisions at the trial date and are obligated to consider all the evidence duly admitted and made known at or before the hearing or trial. (Emphasis added) The obligation on the appraiser/expert is not whether to consider the subsequent information, but how to consider the subsequent information. And the "how to" is a function of the environment, namely the Court of Equity." ~~

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