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Discussant’s Response to
The Sample of One: Indispensable or Indefensible?

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Before examining in somewhat greater detail the content of Mr. Boni’s stimulating paper, I would like to establish my perceptions of the primary differences between the “Sample of One: Indispensable or Indefensible” and Howard Stettler’s classic original article of which this is an extension, “Some Observations on Statistical Sampling in Auditing.” My reason for doing this in no way is to criticize Boni’s paper, but rather to demonstrate that the basic concepts so well known from Stettler’s article are completely different from the ones included in this paper.

The relevant section in Stettler’s article is where he rejects the recommendation of the AICPA Committee on Statistical Sampling for use of reliability levels of 50 to 95 percent confidence for compliance testing and states instead:

> By contrast, it is my contention that the auditor may properly ignore the question of sample reliability when adequate controls over internal control are present, reducing reliability practically to zero, so that only one of each type of item need be tested. On the other hand, if internal control is deficient, the auditor’s modification of his examination should not be in the direction of increasing sample size for his tests of transactions to achieve increased reliability for his conclusions about compliance with the system of internal control. The sample of one of each type of transaction should suffice to indicate that the system such as it is, is operative, and a larger sample that would disclose the extent of compliance helps very little in assessment of the fairness or propriety of the account balances produced by the system.

The point Stettler was making, using the terminology of SAS #1, section 320, is that compliance testing is not necessary beyond a walk-through test to help understand the system and that the emphasis should be on substantive testing.

Boni takes a similar but much broader view of the meaning of a sample of one. Although he certainly believes in the concept of a walk-through test, his use of the term “a sample of one” is a much broader concept than Stettler’s. He gives an example near the end of the paper where a sample of confirmations of accounts receivable is used to test for aging and other attributes of interest. Since the items included in the sample are dealing with one question, the test is referred to as a part of a sample of one. Similarly, he also talks about compliance tests with a random sample and statistical theory being used to estimate the aggregate effect of certain occurrences.

While Stettler restricted his use of a sample of one to a sample of one or
two items, Boni's sample of one pertains to both compliance testing and substantive testing, and it can include sample sizes of more than one. This use of a sample of one, as stated by Boni in his paper in footnote 3, is an extension of Stettler's concept. It also makes it a considerably different concept.

Boni's Integrated Approach to Auditing

Instead of a paper discussing the concept of a sample of one in the sense used by Stettler, my perceptions are that the paper deals with the notion that the individual parts of the audit should be carefully integrated with the overall objectives of the audit rather than treating each part independently. The basic concept Boni deals with involves asking intelligent questions in all aspects of the audit and interrelating relevant parts of the audit by understanding the client's system and following up on inquiries and the responses to the inquiries. In this context, many excellent and useful comments are made throughout the paper.

Since there are parts of the paper with which I am in agreement and other parts where I disagree, I have chosen to limit my comments to Mr. Boni's paper rather than digress into writing a separate paper on the subject. It is always tempting for a discussant to depart from the assigned topic and write a completely new paper on a related subject. In this case, I prefer to avoid that temptation.

Areas in Which We Are in Agreement

Although it is not feasible to state all of the areas where Boni and I agree in his paper, the following areas of agreement should suffice to demonstrate that I support most of his basic ideas. The areas where we agree are not listed in any order of importance and are not meant to be mutually exclusive. Since these areas where we agree are discussed more extensively in his paper, there is little need for extensive elaboration here.

1. Auditors should be concerned about transactions with outsiders, external economic conditions, and entrepreneurial decisions that affect the financial statements. More emphasis should probably be placed on external economic conditions and entrepreneurial decisions both in auditing research and in practice.

2. The auditor must understand and evaluate the client's system in the broad sense of the use of systems. This includes the accounting system, personnel, interrelationships between people, the overall organization, the marketing organization to the extent it is relevant to the audit, etc.

3. The development of the audit tests should be based on an understanding of the client's system and should emphasize efficient tests to locate errors that are expected to exist.

4. The auditor should not simply comply with auditing standards in a rote manner independently of the unique circumstances of the audit. A mechanical approach to auditing is unlikely to result in a well-performed audit.

5. Intelligent questions should be asked throughout the audit and they should be the basis for further questions. When auditors do
not have inquiring minds, there is increased likelihood of overlooking errors.

6. Questions asked in a systematic manner about the system are more useful than random questions. The questions should be framed in a logical fashion that aims toward a complete understanding of the client's system.

7. The sample results of every sample should be carefully analyzed to determine the impact of the errors on the system.

8. Substantive test results should be carefully analyzed to evaluate their impact on the client's system. The tendency to evaluate substantive errors only in terms of their impact on the financial statements should be avoided. It is important to determine and understand the system weakness that permitted the error.

9. Once the auditor understands the client's system, he should not expand his sample to get a greater understanding of the system. The tendency of automatically increasing the sample size whenever errors are found should be strongly resisted. Naturally, there are instances where it is appropriate to increase the sample beyond the original initial sample.

10. Errors and exceptions of all types must be directed at determining their impact on financial information. From an audit point of view, only errors in the financial statements directly affect the auditor's opinion. All errors should ultimately be evaluated in terms of the effect on the statements.

11. Creative discovery of problems is highly desirable. It is necessary to be constantly on the alert for the unusual, to ask relevant questions and obtain satisfactory answers, to develop meaningful and relevant audit programs that meet specific objectives and to avoid being mechanistic in performing audit responsibilities.

One area of the paper where I believe a particularly useful contribution is made by the author is in his extensive discussion of errors in the functional modules. He demonstrates clearly that errors discovered in most auditing situations are highly complex and must be analyzed carefully to determine their cause and their implication on the audit. As a part of this discussion of errors, the comprehensive table that was developed for "The Elements of a System for the Receipt of Monies from Credit Sales" is especially useful. It demonstrates clearly the difficulty of evaluating systems of internal control and modifying audit programs for weaknesses in the system. An extension of the table to include other areas of interest to the audit would be a meaningful contribution.

There are also several areas in the paper where Mr. Boni and I hold different views. It is these areas where the remainder of the critique will be directed.

Comparison of the Worst Aspects of Existing Practice to a Theoretical Approach

In several parts of Boni's paper criticisms are made of existing auditing methods that to me reflect weaknesses in the day-to-day performance of the audit function, rather than shortcomings of existing auditing concepts. It is almost certain that any practicing auditor who frequently performs the review function will find that there are many audits in which there are weaknesses in the application of good audit theory.
It does not seem to be justifiable to compare the conceptual and somewhat esoteric approach advocated by Boni to the worst aspects of the practice of public accounting that are encountered in the review of working papers or discussions with practitioners. It is likely that if the approach recommended by the author were adopted in practice, there would be equally significant shortcomings encountered as a result of the pressures of time budgets and as problems arise in applying theory to practice.

Three examples from Boni’s article of his criticism of existing auditing philosophy should be sufficient to demonstrate the point that his criticisms are of existing auditing practice rather than the current body of theory.

1. Statistical sampling in auditing is referred to as a mechanical process.

Statistical sampling in auditing should be exactly the opposite of a mechanistic approach. To the extent that it is mechanistic, it is a reflection of the poor practice of public accounting rather than poor theory. There are several aspects of statistical sampling that tend to make it non-mechanistic, when properly applied. These include requirements of formally specifying the objectives of the test, definition of the population about which the auditor plans to generalize, definition of an error, and perhaps most importantly, an intensive follow-up of all errors discovered in the statistical test. It seems to me that careful tests of the client’s system using statistical methods are completely consistent with an imaginative, integrated approach to auditing.

2. There is reference to the fact that auditors do not relate things to each other, but rather follow a mechanistic approach.

There is extensive professional literature to demonstrate that auditors should interrelate different parts of the audit into an overall conclusion rather than follow a mechanistic approach to auditing. For example, virtually everyone in auditing agrees that tests of sales transactions should be related to confirmations, cash receipts tests, and other aspects of the audit. Nevertheless, in practice there may be a tendency to fail to integrate sales transactions tests, confirmations, and sales cut-off tests as much as is probably desirable. Again, this is more a reflection of weak practice than of the existing body of available auditing concepts.

The extensive illustration that Boni offers of the elements of a system for the receipt of monies from credit sales is an excellent contribution to the complex interaction of different elements of the system, but if practitioners were to follow this approach on a day-to-day basis, it is likely that there would be many instances of deficient or improper application. These aberrations would not be a basis for concluding that Boni’s proposals are not appropriate or relevant. It would be unfair to criticize his approach to audit program development on the basis that some, or even many, practitioners were applying his concept improperly.

3. It is implied that auditors do not evaluate external conditions and management decisions as a part of the audit process.

When auditors do not evaluate external economic conditions and the deci-
sions made by management while they audit, there is a significant deficiency in their audit performance. It is essential that auditors consider such things as the product selling price in the subsequent period as a part of inventory valuation, and general economic conditions in evaluating the allowance for doubtful accounts. Similarly, auditors must determine whether management decisions in such areas as charge-off of bad debts, inventory obsolescence write downs, and capitalization of fixed assets are in accordance with generally accepted accounting principles and are consistent with the preceding period. Although there is a need for additional research in more appropriate methods of evaluating external conditions and management decisions in the audit process, both of these are currently necessary as a part of good auditing.

In summary of this section, I believe that Mr. Boni has compared some of the worst aspects of existing practice to his theoretic approach. As might be expected, whenever practice is compared to a concept or theory, the existing practice comes out a very poor second. In my opinion, a good portion of Mr. Boni's criticism of auditing in this paper is a criticism of what sometimes occurs in practice, and most auditors would be similarly critical.

Relevance of Compliance Testing in Auditing

A major area where Mr. Boni and I apparently are in substantial disagreement is the relevance of compliance testing as a part of the entire audit process. This comes up indirectly in several places, but is specifically stated in the early part of the paper when he asserts that "The signals emanating at the processing stages do not provide information that can be demonstrated to be useful for establishing empirically the expectation for errors in the aggregated end results of the processing."

Depending upon how expectation of errors is interpreted, this statement implies to me that compliance testing is not useful for prediction of monetary errors in the financial statements. This is a very strong statement and inconsistent with my interpretation of most existing professional literature. In order to better understand the nature of our disagreement, a brief summary is given of my interpretation of Section 320 of SAS #1.

1. The initial review of internal controls is performed to determine the controls the client believes to be in effect. This is done through flowcharting, internal control questionnaires, walk-through tests, and discussions with the client.

2. The extent to which the auditor is willing to rely upon the existing controls to reduce his substantive audit tests is determined by the auditor under the assumption that the apparently existing controls are actually operating effectively. When the existing controls reduce the auditor's expectations of monetary errors in the financial statements, the auditor should normally perform compliance tests and then reduce the substantive tests accordingly if the compliance tests indicate an effectively operating system. The compliance tests should not be performed if the expected cost of the compliance tests exceeds the reduction of cost of substantive tests resulting from relying upon the client's system. This could result from relatively ineffective controls or a high cost of the particular compliance tests.
3. The auditor must perform compliance procedures to test the controls that will be relied upon to reduce the substantive tests. Naturally, these tests must be done intelligently and with great care. In many instances, the tests will be done jointly with substantive tests, again under the still unproven assumption that the compliance tests will establish that the client's controls are likely to effectively reduce the likelihood of errors.

4. If the compliance tests yield good results, the auditor can rely upon the client's system to reduce the substantive tests as originally planned. If the actual tests indicate the client's control system is not operating effectively, he cannot rely upon the system to reduce the substantive tests. A careful evaluation of the nature of the compliance errors and why they exist must be made at this point even though the system cannot be relied upon to reduce the substantive tests.

There are at least four implicit assumptions underlying the philosophy of using compliance testing as a means of reducing substantive tests. These are as follows:

1. It is possible to relate particular controls in a system to a final dollar balance aggregate. For example, specific controls over recording sales must in some way be related to the final dollar balance in the sales and possibly accounts receivable.
2. The existence or non-existence of a particular set of controls in a particular environment significantly affects the likelihood of dollar errors in the related financial account(s).
3. The degree of compliance with the control system significantly affects the likelihood of dollar errors in the related financial account(s).
4. When compliance deviations exist, a predictable effect on the dollar errors on the related financial account(s) is possible.

It is apparent that Mr. Boni rejects one or more of these basic assumptions in concluding that the errors detected in testing the processing stages do not aid the auditor in establishing the expectation of dollar errors in the final dollar balances. The only ultimate test of the validity of the above assumptions is in an extensive empirical test of them by relating actual errors discovered in different client systems to the existence or non-existence of particular controls and to the extent of compliance with the controls by the client's employees. Since this has not been done formally in any reported research results, there can be no absolute assurance that any of the four assumptions are valid.

If the assumptions are invalid, organizations that set up sophisticated systems have been wasting resources in setting them up. In addition, it would imply that auditors who have been evaluating and testing controls have also been inefficient in their approach to auditing. Since companies continue to spend considerable resources to set up complex systems of control and to utilize extensive compliance procedures to assure system effectiveness, it seems likely that the controls serve a useful purpose. It is unlikely that most clients would waste money on ineffective controls. Furthermore, auditors do have considerable experience in evaluating the effect of clients' internal controls on final financial aggregates. Since auditors continue to test clients' systems by compliance tests, that is some evidence, but certainly not conclusive evidence, that compliance tests are useful.
Although there is no irreputable empirical evidence to support either Mr. Boni's position or mine, I conclude deductively that different client control systems and the extent to which these controls are operative have an effect on the likelihood of errors. Furthermore, when auditors carefully evaluate the client's system and test the system in a prudent and reasonable manner, I believe the results of the tests are also useful in determining the necessary substantive tests.

Other Areas of Disagreement

There are several other minor areas where Mr. Boni and I do not agree. This final section will briefly discuss three of these.

First, is Mr. Boni's statement that "the use of tools that bring about conformity and control of work is inconsistent with good auditing." I disagree strongly with this statement. Although I concur that rote mechanistic work is undesirable, it does not follow that the use of tools such as statistical sampling should or will result in mechanistic auditing. Specifically, it seems to me that statistical sampling can, and usually does when properly applied, provide a higher quality of audit performance. For example, the use of random sampling and the measurement of sampling error in statistical applications provide great potential benefit without reducing the auditor's judgment.

Second is the author's criticism of the combining of compliance testing and substantive testing into an overall level of reliance as suggested in Appendix B of Section 320 in SAS #1. The combination of evidence into a final overall conclusion is always done either implicitly or explicitly on every audit. The author's method of combining evidence from interrelated activities subjectively by asking questions and seeking answers is highly complex and difficult to do. I do not see any great difference between his approach and the somewhat more formal and objective approach stated in SAS #1. Again, I agree wholeheartedly that combining different tests should not be done mechanistically or rotely, but more sophisticated methods of combining evidence should be recommended. The article presented in this symposium by Bill Felix on the use of decision theory in auditing is a far more sophisticated and potentially useful method of combining different tests than the methods recommended in SAS #1.

Finally, I disagree with Boni's notion of the desirability or acceptability of a "gut feel" or "intuitive leaps." It seems to me that attempts at logical conclusions based upon actual evidence should be encouraged and emphasized in the professional literature. In recent years where there has been considerable pressure from legal liability it is essential that audit evidence be as defensible as possible. "Intuitive leaps" and "gut feel" hardly seem adequate legal defenses.

Summary and Conclusion

Greg Boni's article is long and sometimes difficult to interpret and comprehend, but many of his ideas are imaginative, stimulating and certainly worthwhile to think about by anyone interested in auditing. In a paper with so many existing auditing conventions rejected, there are almost certainly some parts of the paper with which virtually every thoughtful reader will disagree. At the same time, many of his feelings and philosophies about auditing will appeal to
anyone who understands auditing. Yet, the most important contribution in the paper is that it does provide a vehicle for stimulating thoughtful discussions about the objectives of audit evidence accumulation and alternative ways of satisfying those objectives.

Footnotes

2. Ibid., p. 58.