STATEMENT 3.235

AUDITING GUIDELINE

ANALYTICAL REVIEW

Introduction

1. This guideline explains the principles underlying the application of analytical review procedures and sets out the factors which the auditor should consider when performing such procedures. The specific application of these principles and the degree of assurance which it provides are matters for the auditor's professional judgement in the light of the particular circumstances of each audit engagement. This guideline is supplementary to and should be read in conjunction with Auditing Standards Nos. 3.101 and 3.102 and the Explanatory Foreword to Auditing Standards and Guidelines.

Definition and explanation

2. The term "analytical review" is used to describe a variety of audit procedures, and encompasses the following:

   — analysing the relationship between items of financial data (e.g. between sales and cost of sales), or between financial and non-financial information (e.g. between payroll costs and the size of the workforce);

   — comparing actual data with predictions derived from the analysis of known or expected relationships between items of data;

   — comparing information for the latest period with corresponding information for earlier periods, other comparable entities or industry averages;

   — investigating unexpected variations which are identified by such analysis and comparison;

   — obtaining and substantiating explanations for those variations;

   — evaluating the results of such analysis, comparison and investigation in the light of other audit evidence obtained to support the auditor's opinion on the financial statements.

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3. Analytical review procedures range from simple comparisons (e.g. current period amounts or ratios with earlier years' figures) to more sophisticated methods using computer audit software and advanced statistical techniques (e.g. multiple regression analysis).

Factors determining the extent of use

4. The extent of the auditor's use of analytical review procedures will be determined by his assessment of a number of factors including:

   (a) the nature of the entity and its operations;

   (b) his knowledge of the client gained during previous years and any relevant knowledge and experience gained by him when auditing similar entities in the past, together with his understanding of the types of problems that have occurred in preceding periods;

   (c) the availability of different forms of financial and non-financial information (e.g. production figures expressed in volume terms), since the correlation of financial and non-financial information may be more persuasive than comparison of financial data alone;

   (d) the relevance and reliability of the various forms of information available, and the comparability and independence of information from different sources; and

   (e) the relative cost-effectiveness of analytical review procedures vis a vis alternative means of obtaining audit evidence.

5. Analytical review procedures may be applied to:

   (a) individual account areas (e.g. sales, payroll costs or depreciation charges);

   (b) financial information of individual entities or particular activities (e.g. subsidiaries, divisions or segments); and

   (c) financial information relating to consolidated financial statements.

6. In the case of diversified entities analytical review procedures are more effective when applied to financial information on individual business segments rather than to the financial statements of the entity as a whole. In general, the greater the extent of disaggregation, the more useful for audit purposes the results are likely to be. For example, it would be appropriate in the audit of a

retail chain to apply analytical review procedures to individual outlets because in the aggregated figures the trends and fluctuations of some outlets may be hidden by those of others.

Procedures

7. The auditor should begin his analytical review procedures by obtaining a thorough understanding of the business and by identifying factors likely to have a material effect on the items in the financial statements (e.g. external economic conditions or internal circumstances such as improvements in production efficiency). He should consider the relationship between these factors and items, ensuring that the expected relationship is both credible and relevant for the purpose of the review. For example, in the audit of a taxi business it would be reasonable to expect an increase in takings (assuming fares have remained constant) to be accompanied by an increase in cab running costs. This should enable him to predict a likely range of expected values of individual items. Comparison of this prediction with the actual recorded amounts and consideration of any variances will indicate the extent of any further investigation which may be required. Similarly, comparison between current and past data may be an equally appropriate basis for analytical review especially if it relates to several accounting periods.

8. It is important that the validity of the data used by the auditor to calculate expected values should be established. This may be done by testing either the data itself or the adequacy of the system which produced it. For example, it would be inappropriate to conclude from a review of an apparent relationship between sales and cost of sales that either figure appears to be reasonably stated unless the validity of one figure has been established by other audit procedures. It is important to avoid making the mistake of imputing validity to two figures simply on the basis that the relationship between them appears reasonable.

9. The auditor should carefully consider the implications of variations from expected or past comparable values or any features identified which are inconsistent with evidence obtained from other sources.

10. Explanations for material unexpected variations should be sought from an appropriate level of management. However, before placing full reliance on such explanations the auditor should seek to corroborate them by other evidence and should subject them to a critical evaluation in the light of other audit evidence and his knowledge of the entity.

11. Management may perform various procedures similar to the auditor's analytical review procedures (e.g. for performance measurement purposes). In such cases the auditor should consider whether the approach, the data used and the results obtained are relevant for the purposes of his audit. Where he decides to use the results of management's procedures for his own purposes, he should first evaluate the reliability of the procedures and the validity of the data used.

12. The auditor's use of analytical review procedures and his considerations of and reactions to the results of these procedures will vary depending upon the stage of the audit at which they are performed. Accordingly the following procedural guidance is given in three sections dealing with analytical review procedures:

— at the planning stage,
— at the detailed testing stage, and
— at the review of financial statements stage.

At the planning stage

13. Paragraph 8 of the Auditing Guideline 3.210 "Planning, controlling and recording", states that in planning his audit the auditor should consider preparatory procedures which include:

"(b) assessing the effects of any changes in legislation or accounting practice affecting the financial statements of the entity;

(c) reviewing interim or management accounts where these are available and consulting with the management and staff of the entity. Matters which should be considered include current trading circumstances, and significant changes in:-

(i) the business carried on, and
(ii) the entity's management."

14. The auditor's work on planning the audit will usually take place before annual financial statements are available. Accordingly, any analytical review procedures performed at this stage of the audit will necessarily be based upon interim financial statements, estimated or budgeted financial statements, financial statements prepared for internal management purposes, or even, in some cases, the prior period's financial statements.

15. Analytical review procedures employed at this stage of the audit may add to the auditor's understanding of the entity but their primary

purpose is to identify, and thereby to enable the auditor to direct audit resources to, areas of the financial statements where the recorded values may vary from the values the auditor would expect. Such variation may be the result of changes in internal or external factors (e.g. a variation in gross profit margin may be the result of a change of sales mix or a change in production efficiency, or it may be the result of a misstatement). In any event, where the auditor's procedures reveal variations from expectations he should plan to conduct further work to discover their cause.

16. In developing his expectations the auditor should consider non-financial data and the likely impact of changes in factors external to the entity. For example, the knowledge that the client has increased its production capacity may lead to an expectation that turnover will have increased; on the other hand, the knowledge that the industry in general has suffered a downturn in demand may lead the auditor to expect turnover to have decreased.

At the detailed testing stage

17. Paragraph 8 of the Auditing Guideline 3.230 "Audit evidence" states that:

> "Audit evidence is obtained by carrying out audit tests which may be classified as 'substantive' or 'compliance' according to their primary purpose. Both such purposes are sometimes achieved concurrently. Substantive tests are defined as those tests of transactions and balances, and other procedures such as analytical review, which seek to provide audit evidence as to the completeness, accuracy and validity of the information contained in the books of account or in the financial statements. Compliance tests are defined as those tests which seek to provide audit evidence that internal control procedures are being applied as prescribed."

That guideline goes on (paragraphs 11-13) to explain that analytical review procedures:

> "include studying significant ratios, trends and other statistics and investigating any unusual or unexpected variations. The precise nature of these procedures and the manner in which they are documented will depend on the circumstances of each audit.
>
> The comparisons which can be made will depend on the nature, accessibility and relevance of the data available. Once

the auditor has decided on the comparisons which he intends to make in performing his analytical review, he should determine what variations he expects to be disclosed by them.

Unusual or unexpected variations, and expected variations which fail to occur, should be investigated. Explanations obtained should be verified and evaluated by the auditor to determine whether they are consistent with his understanding of the business and his general knowledge. Explanations may indicate a change in the business of which the auditor was previously unaware in which case he should reconsider the adequacy of his audit approach. Alternatively they may indicate the possibility of misstatements in the financial statements; in these circumstances the auditor will need to extend his testing to determine whether the financial statements do include material misstatements."

18. In deciding whether to use analytical review procedures or other forms of substantive testing the auditor should consider the relative costs of obtaining evidence by different methods and the level of assurance each form of testing will provide.

19. In most cases, analytical review procedures will be used in conjunction with other substantive tests. However, there may be circumstances in which analytical review procedures by themselves can provide the required level of assurance. One example would be where the value of one item can be verified directly by reference to another item of data, the validity of which has already been established (e.g. where commission paid to the sales force is a known percentage of the value of sales, this expense item can be verified directly by reference to the audited figure for sales). This procedure is sometimes referred to as "proof in total".

20. Analytical review procedures are often an effective means of testing for understatement, for example the completeness of an accounting population. Variations from expected relationships may indicate potential omissions which may not have been detected by other substantive tests. However, such omissions are only likely to be revealed when the auditor has a valid benchmark against which to measure the results of his procedures (e.g. a year on year comparison will not reveal recurring errors or omissions).

21. The auditor should assess the level of assurance which he can obtain from performing analytical review procedures. This assessment will require consideration of the following factors:

(a) the relevance, reliability, comparability and independence of the data being used;

(b) for internally generated data, the adequacy of the controls over the preparation of financial and non-financial information;

(c) the accuracy with which the figures being examined by analytical review procedures can be predicted; and

(d) the materiality of the items.

The extent of reliance placed on the results of analytical review procedures should be based on the auditor's assessment of the above factors. He will also need to consider the extent to which he is able to combine assurance obtained from his analytical review procedures with that obtained from detailed substantive tests.

22. Where the explanations received for material unexpected variations cannot be substantiated the auditor will need to obtain sufficient evidence using alternative procedures (e.g. by increasing the extent of other substantive tests). Where they indicate the possibility of misstatement the auditor should conduct a thorough investigation to determine whether in fact a misstatement has occurred and if so its full extent and its effect on the financial statements.

23. If tests cannot be extended or where alternative forms of evidence are not available, the auditor will need to consider qualifying his audit opinion. Similarly if the results of the analytical review procedures indicate that material error probably exists but cannot be rectified because its exact extent cannot be quantified this may cause the auditor to consider qualifying his opinion. For guidance on the appropriate form of the auditor's opinion reference should be made to the Auditing Standard No. 3.102 "Reporting" and Auditing Guidelines 3.310, 3.320 and 3.330.

At the review of financial statements stage

24. Paragraph 9 of the Auditing Guideline 3.250 "Review of financial statements", states that:

> "In addition to any analytical review procedures carried out during the course of the audit, the auditor should carry out an overall review of the information in the financial statements themselves and compare it with other available data. For such a review to be effective the auditor needs to have sufficient knowledge of the activities of the entity and of the business

which it operates to be able to determine whether particular items are abnormal. This background information should be available in the auditor's working papers as a result of his planning and earlier audit procedures."

25. At the review of financial statements stage, the auditor would not normally expect to find material unexpected variations because such variations should normally have been detected at an earlier stage of the audit. However, in those cases where variations are discovered it may be necessary to perform additional procedures or reperform the original procedures.

Controlling and recording

26. Analytical review should never be regarded as a mechanical process. The effective performance of analytical review procedures requires experience, judgement and a thorough knowledge of the entity and the factors that might affect it. Therefore the auditor should ensure that staff possessing such qualities are assigned to the task of conducting analytical review.

27. The auditor's analytical review procedures should be properly recorded. The documentation should show:

    (a) the information examined, the sources thereof and the factors considered in establishing its reliability;

    (b) the extent and nature of material variations found;

    (c) the sources and level of management from which explanations for material unexpected variations have been obtained;

    (d) the verification of those explanations;

    (e) any further action taken; and

    (f) the conclusions drawn by the auditor.

28. Analytical review procedures may be made more efficient and effective by compiling a client profile in permanent working papers detailing key ratios and trends from year to year. This will allow the auditor to build up a base of financial and non-financial information which he may use for his analytical review in subsequent years.