PROPOSED INTERNATIONAL STANDARD ON AUDITING 520  
(REDRAFTED)  

ANALYTICAL PROCEDURES  
(Effective for audits of financial statements for periods beginning on or after [December 15, 2009])

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Prepared by: ISA 520 Task Force (November 2007)
Introduction

Scope of this ISA

1. This International Standard on Auditing (ISA) deals with the auditor’s use of analytical procedures in an audit of financial statements.

Nature of Analytical Procedures

2. Analytical procedures include the consideration of comparisons of the entity’s financial information with, for example:
   - Comparable information for prior periods.
   - Anticipated results of the entity, such as budgets or forecasts, or expectations of the auditor, such as an estimation of depreciation.
   - Similar industry information, such as a comparison of the entity’s ratio of sales to accounts receivable with industry averages or with other entities of comparable size in the same industry.

3. Analytical procedures also include consideration of relationships, for example:
   - Among elements of financial information that would be expected to conform to a predictable pattern based on the entity’s experience, such as gross margin percentages.
   - Between financial information and relevant non-financial information, such as payroll costs to number of employees.

4. Various methods may be used to perform analytical procedures, which range from simple comparisons to complex analyses using advanced statistical techniques. Analytical procedures may be applied to consolidated financial statements, financial statements of components (such as subsidiaries, divisions, branches or segments) and individual elements of financial information.

Effective Date

5. This ISA is effective for audits of financial statements for periods beginning on or after [December 15, 2009].

Objective

6. The objective of the auditor is to design and perform analytical procedures:
   (a) That are effective in obtaining relevant and reliable audit evidence when used as risk assessment procedures or as substantive procedures in response to an assessed risk of material misstatement; and
   (b) That contribute to the auditor’s overall review of the financial statements.

Definitions

7. For the purposes of the ISAs, the term “analytical procedures” means evaluations
of financial information made by a study of plausible relationships among both financial and non-financial data. Analytical procedures also encompass the investigation of identified fluctuations and relationships that are inconsistent with other relevant information or deviate significantly from predicted amounts.

Requirements

Analytical Procedures as Risk Assessment Procedures

8. The auditor shall design and perform analytical procedures as risk assessment procedures as part of obtaining an understanding of the entity and its environment in accordance with ISA 315 (Redrafted). (Ref: Para. A1-A4)

Analytical Procedures as Substantive Procedures

9. In deciding to use, and when designing and performing, analytical procedures, either alone or in combination with tests of details, as a substantive procedure to respond to assessed risk of material misstatement at the assertion level in accordance with ISA 330 (Redrafted), the auditor shall: (Para. A5-A6)

   (a) Determine the suitability of using substantive analytical procedures given the assertions, taking account of the assessed risks of material misstatement and tests of details, if any, directed towards the same assertion; (Para. A7-A11)

   (b) Evaluate reliability of data, whether internal or external, from which the expectation of recorded amounts or ratios is developed, taking account of source, comparability, and nature and relevance of information available, and controls over preparation; (Para. A12-A13)

   (c) Evaluate whether the expectation is sufficiently precise to identify a material misstatement at the desired level of assurance; and (Para. A14)

   (d) Determine the amount of any difference of recorded amounts from expected values that is acceptable without further investigation. (Para. A15-A17)

Analytical Procedures as Part of the Auditor’s Overall Review of the Financial Statements

10. The auditor shall, as part of the auditor’s overall review of the financial statements, design and perform analytical procedures that contribute to forming an overall conclusion as to whether the financial statements as a whole are consistent with the auditor’s understanding of the entity. (Ref: Para. A18-A20)

Investigating Results of Analytical Procedures

11. If analytical procedures identify significant fluctuations or relationships that are inconsistent with other relevant information or that deviate significantly from predicted amounts, the auditor shall investigate, through:

   (a) Inquiry of management and obtaining appropriate audit evidence to corroborate management’s responses; and
(b) Performing other audit procedures as necessary in the circumstances. (Ref: Para. A21-A22)

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Application and Other Explanatory Material

Analytical Procedures as Risk Assessment Procedures (Ref: Para. 8)

A1. Analytical procedures performed during risk assessment of the entity may indicate aspects of the entity of which the auditor was unaware and will assist in assessing the risks of material misstatement in order to determine the nature, timing and extent of further audit procedures.

A2. Analytical procedures applied as risk assessment procedures may include both financial and non-financial information, for example, the relationship between sales and square footage of selling space or volume of goods sold.

Considerations Specific to Smaller Entities

A3. The availability of information to perform analytical procedures as risk assessment procedures in the audit of a smaller entity may be limited by the timeliness of processing of transactions and preparation of reliable financial information by the entity. Further, small entities may not have interim or monthly financial information that can be used for purposes of analytical procedures. Accordingly, although the auditor may be able to perform limited analytical procedures for purposes of planning the audit or obtain some information through inquiry of the owner-manager, the auditor may need to plan to perform analytical procedures when the first draft of the entity’s financial statements is available.

Considerations Specific to Public Sector Entities

A4. The relationships between individual financial statement items traditionally considered in the audit of business entities may not always be relevant in the audit of governments or other non-business public sector entities; for example, in many public sector entities there may be little direct relationship between revenue and expenditure. In addition, because expenditure on the acquisition of assets may not be capitalized, there may be no relationship between expenditures on, for example, inventories and fixed assets and the amount of those assets reported in the financial statements. Also in the public sector, industry data or statistics for comparative purposes may not be available. However, other relationships may be relevant, for example, variations in the cost per kilometer of road construction or the number of vehicles acquired compared with vehicles retired.

Analytical Procedures as Substantive Procedures (Ref: Para. 9)

A5. The decision about which audit procedures to use is based on the auditor’s judgment about the expected effectiveness and efficiency of the available audit
procedures to reduce audit risk at the assertion level to an acceptably low level.

A6. The auditor may inquire of management as to the availability and reliability of information needed to apply substantive analytical procedures and the results of any such procedures performed by the entity. It may be efficient to use analytical data prepared by management, and to consider the results of any such procedures performed by management, provided the auditor is satisfied that such data is properly prepared.

Suitability of Using Substantive Analytical Procedures Given the Assertions (Ref: Para 9(a))

A7. Substantive analytical procedures are generally more applicable to large volumes of transactions that tend to be predictable over time. The application of substantive analytical procedures is based on the expectation that relationships among data exist and continue in the absence of known conditions to the contrary. The presence of these relationships provides audit evidence as to the completeness, accuracy and occurrence of transactions captured in the information produced by the entity’s information system relevant to financial reporting. However, use of substantive analytical procedures by the auditor would depend on the auditor’s expectation that the analytical procedures would not fail to identify relationships as expected when, in fact, a material misstatement exists.

A8. In some cases, even an unsophisticated predictive model may be effective as an analytical procedure. For example, where an entity has employed a known number of staff at fixed rates of pay throughout the period, it may be possible for the auditor to use this data to estimate the total payroll costs for the period with a high degree of accuracy, thereby providing audit evidence for a significant item in the financial statements and reducing the need to perform tests of details on the payroll. The use of widely recognized trade ratios (such as profit margins for different types of retail entities) can often be used effectively in analytical procedures to provide evidence to support the reasonableness of recorded items.

A9. Different types of analytical procedures provide different levels of assurance. Analytical procedures involving, for example, the prediction of total rental income on a building divided into apartments, taking the rental rates, the number of apartments and vacancy rates into consideration, can be a very persuasive source of evidence and may eliminate the need for further verification by means of tests of details provided the components are appropriately verified. In contrast, calculation and comparison of gross margin percentages as a means of confirming a revenue figure may be a less persuasive source of evidence, but may provide useful corroboration if used in combination with other audit procedures.
A10. The determination of the suitability of substantive analytical procedures given the assertions is influenced by the nature of the assertion and the auditor’s assessment of the risk of material misstatement. For example, if controls over sales order processing is weak, the auditor may place more reliance on tests of details rather than substantive analytical procedures for assertions related to receivables or when inventory balances are material the auditor may not rely only on substantive analytical procedures when performing audit procedures on the existence assertion.

A11. Substantive analytical procedures may also be considered appropriate when tests of details are performed on the same assertion. For example, when obtaining audit evidence regarding the valuation assertion for accounts receivable balances, the auditor may apply substantive analytical procedures to an aging of customers’ accounts in addition to tests of details on subsequent cash receipts to determine the collectability of the receivables.

The Reliability of the Data (Ref: Para 9(b))

A12. The reliability of data is influenced by its source and by its nature and is dependent on the circumstances under which it is obtained. Accordingly, the following are relevant when determining whether data is reliable for purposes of designing substantive analytical procedures:

(a) Source of the information available. For example, information may be more reliable when it is obtained from independent sources outside the entity. (Refer to [Proposed] ISA 500 (Redrafted))

(b) Comparability of the information available. For example, broad industry data may need to be supplemented to be comparable to that of an entity that produces and sells specialized products.

(c) Nature and relevance of the information available. For example, whether budgets have been established as results to be expected rather than as goals to be achieved.

(d) Controls over the preparation of the information. For example, controls over the preparation, review and maintenance of budgets.

A13. The auditor may consider testing the operating effectiveness of controls, if any, over the entity’s preparation of information used by the auditor in applying substantive analytical procedures. When such controls are effective, the auditor generally has greater confidence in the reliability of the information and, therefore, in the results of substantive analytical procedures. The operating effectiveness of controls over non-financial information may often be tested in conjunction with other tests of controls. For example, an entity in establishing

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controls over the processing of sales invoices may include controls over the recording of unit sales. In these circumstances, the auditor could test the operating effectiveness of controls over the recording of unit sales in conjunction with tests of the operating effectiveness of controls over the processing of sales invoices. Alternatively, the auditor may consider whether the information was subjected to audit testing in the current or prior period. ISA 500\(^2\) establishes requirements and provides guidance in determining the audit procedures to apply to the information upon which the expectation for substantive analytical procedures is based.

**Determining whether the Expectation is Sufficiently Precise** (Ref: Para 9(c))

A14. In evaluating whether the expectation can be developed sufficiently precisely to identify a material misstatement at the desired level of assurance, the auditor may consider matters such as the following:

- The accuracy with which the expected results of substantive analytical procedures can be predicted. For example, the auditor may expect greater consistency in comparing gross profit margins from one period to another than in comparing discretionary expenses, such as research or advertising.

- The degree to which information can be disaggregated. For example, substantive analytical procedures may be more effective when applied to financial information on individual sections of an operation or to financial statements of components of a diversified entity, than when applied to the financial statements of the entity as a whole.

- The availability of the information, both financial and non-financial. For example, the auditor may consider whether financial information, such as budgets or forecasts, and non-financial information, such as the number of units produced or sold, is available to design substantive analytical procedures. If the information is available, the auditor may also consider the reliability of the information as discussed in paragraphs A13 and A14 above.

**Amount of Difference of Recorded Amounts from Expected Values that is Acceptable** (Ref: Para 9(d))

A15. The auditor’s determination of the amount of difference from expectation that can be accepted without further investigation is influenced by materiality and the consistency with the desired level of assurance, taking account of the possibility that a combination of misstatements in the specific account balance, class of transactions, or disclosure could aggregate to an unacceptable amount. The auditor is required to obtain more persuasive audit evidence the higher the auditor’s assessment of risk\(^3\). Accordingly, a smaller amount of difference that would be considered acceptable without investigation is needed to achieve the desired level assurance as the assessed risks increases.

\(^2\) [Proposed] ISA 500 (Redrafted), paragraphs 12(a), A28 and A29.

\(^3\) ISA 330 (Redrafted), “The Auditor’s Response to Assessed Risks,” paragraph 7(b).
A16. The matters discussed in paragraph 9(a) – 9(d) are relevant irrespective of whether the auditor performs analytical procedures as substantive procedures on the entity’s period end financial statements, or the auditor performed substantive procedures at an interim date and plans to perform substantive analytical procedures with respect to the intervening period as part of the period end. ISA 330⁴ establishes requirements and provides guidance on substantive procedures performed at an interim date.

Considerations Specific to Smaller Entities

A17. The extent of analytical procedures in the audit of a small entity may be limited because of the non-availability of information on which the analytical procedures are based.

Analytical Procedures as Part of the Auditor’s Overall Review of the Financial Statements (Ref: Para. 10)

A18. The conclusions drawn from the results of analytical procedures as part of the auditor’s overall review of the financial statements during the overall review stage of the audit are intended to corroborate conclusions formed during the audit of individual components or elements of the financial statements and assist in arriving at the auditor’s overall conclusion on whether the financial statements as a whole are free from material misstatements.

A19. The results of such analytical procedure may identify a previously unrecognized risk of material misstatement. In such circumstances, the auditor is required to revise the auditor’s assessment of the risks of material misstatement and modify the further planned audit procedures accordingly⁵.

A20. The analytical procedures performed as part of the auditor’s overall review of the financial statements are often similar to those that would be used as risk assessment procedures.

Investigating Results of Analytical Procedures (Ref: Para. 11)

A21. Corroborating management’s responses may include considering how those responses compare with the auditor’s understanding of the entity and its environment, or with other audit evidence obtained during the course of the audit.

A22. The need to apply other audit procedures may arise when, for example, management is unable to provide an explanation or if the explanation is not considered adequate.

⁴ ISA 330 (Redrafted), paragraphs 23-24.
⁵ ISA 330 (Redrafted), paragraph 30.