

ASA 520
(October 2009)

Auditing Standard ASA 520

Analytical Procedures

Issued by the **Auditing and Assurance Standards Board**

For approval



Australian Government

Auditing and Assurance Standards Board

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PREFACE

Reasons for Issuing Auditing Standard ASA 520 *Analytical Procedures*

The Auditing and Assurance Standards Board (AUASB) issues Auditing Standard ASA 520 *Analytical Procedures* pursuant to the requirements of the legislative provisions and the Strategic Direction explained below.

The AUASB is an independent statutory board of the Australian Government established under section 227A of the *Australian Securities and Investments Commission Act 2001*, as amended (ASIC Act). Under section 336 of the *Corporations Act 2001*, the AUASB may make Auditing Standards for the purposes of the corporations legislation. These Auditing Standards are legislative instruments under the *Legislative Instruments Act 2003*.

Under the Strategic Direction given to the AUASB by the Financial Reporting Council (FRC), the AUASB is required to have regard to any programme initiated by the International Auditing and Assurance Standards Board (IAASB) for the revision and enhancement of the International Standards on Auditing (ISAs) and to make appropriate consequential amendments to the Australian Auditing Standards. Accordingly, the AUASB has decided to revise and redraft the Australian Auditing Standards using the equivalent redrafted ISAs.

Main Features

This Auditing Standard establishes requirements and provides application and other explanatory material regarding the auditor's use of analytical procedures as substantive procedures ("substantive analytical procedures"). It also deals with the auditor's responsibility to perform analytical procedures near the end of the audit that assist the auditor when forming an overall conclusion on the financial report.

This Auditing Standard:

- (a) sets out the procedures an auditor is to undertake when designing and performing substantive analytical procedures;
- (b) requires the auditor to design and perform analytical procedures near the end of the audit that assist the auditor when forming an overall conclusion on the financial report; and
- (c) requires the auditor to investigate fluctuations or relationships that are inconsistent with other relevant information or that differ from expected values by a significant amount.

AUTHORITY STATEMENT

The Auditing and Assurance Standards Board (AUASB) makes this Auditing Standard ASA 520 *Analytical Procedures* pursuant to section 227B of the *Australian Securities and Investments Commission Act 2001* and section 336 of the *Corporations Act 2001*.

This Auditing Standard is to be read in conjunction with ASA 101 *Preamble to Australian Auditing Standards*, which sets out the intentions of the AUASB on how the Australian Auditing Standards, operative for financial reporting periods commencing on or after 1 January 2010, are to be understood, interpreted and applied. This Auditing Standard is to be read also in conjunction with ASA 200 *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with Australian Auditing Standards*.

Dated: 27 October 2009

M H Kelsall
Chairman - AUASB

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Application

- Aus 0.1 This Auditing Standard applies to:
- (a) an audit of a financial report for a financial year, or an audit of a financial report for a half-year, in accordance with the *Corporations Act 2001*; and
 - (b) an audit of a financial report, or a complete set of financial statements, for any other purpose.
- Aus 0.2 This Auditing Standard also applies, as appropriate, to an audit of other historical financial information.

Operative Date

- Aus 0.3 This Auditing Standard is operative for financial reporting periods commencing on or after 1 January 2010.

Introduction

Scope of this Auditing Standard

1. This Auditing Standard deals with the auditor's use of analytical procedures as substantive procedures ("substantive analytical procedures"). It also deals with the auditor's responsibility to perform analytical procedures near the end of the audit that assist the auditor when forming an overall conclusion on the financial report. ASA 315¹ deals with the use of analytical procedures as risk assessment procedures. ASA 330 includes requirements and guidance regarding the nature, timing and extent of audit procedures in response to assessed risks; these audit procedures may include substantive analytical procedures.²

¹ See ASA 315 *Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment*, paragraph 6(b).

² See ASA 330 *The Auditor's Responses to Assessed Risks*, paragraphs 6 and 18.

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Effective Date

2. [Deleted by the AUASB. Refer Aus 0.3]

Objectives

3. The objectives of the auditor are:
- (a) To obtain relevant and reliable audit evidence when using substantive analytical procedures; and
 - (b) To design and perform analytical procedures near the end of the audit that assist the auditor when forming an overall conclusion as to whether the financial report is consistent with the auditor's understanding of the entity.

Definition

4. For purposes of the Australian Auditing Standards, the term "analytical procedures" means evaluations of financial information through analysis of plausible relationships among both financial and non-financial data. Analytical procedures also encompass such investigation as is necessary of identified fluctuations or relationships that are inconsistent with other relevant information or that differ from expected values by a significant amount.
(Ref: Para. A1-A3)

Requirements

Substantive Analytical Procedures

5. When designing and performing substantive analytical procedures, either alone or in combination with tests of details, as substantive procedures in accordance with ASA 330,³ the auditor shall:
(Ref: Para. A4-A5)
- (a) Determine the suitability of particular substantive analytical procedures for given assertions, taking account of the assessed risks of material misstatement and tests of details, if any, for these assertions; (Ref: Para. A6-A11)
 - (b) Evaluate the reliability of data from which the auditor's expectation of recorded amounts or ratios is developed,

³ See ASA 330, paragraph 18.

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taking account of source, comparability, and nature and relevance of information available, and controls over preparation; (Ref: Para. A12-A14)

- (c) Develop an expectation of recorded amounts or ratios and evaluate whether the expectation is sufficiently precise to identify a misstatement that, individually or when aggregated with other misstatements, may cause the financial report to be materially misstated; and (Ref: Para. A15)
- (d) Determine the amount of any difference of recorded amounts from expected values that is acceptable without further investigation as required by paragraph 7 of this Auditing Standard. (Ref: Para. A16)

Analytical Procedures that Assist When Forming an Overall Conclusion

- 6. The auditor shall design and perform analytical procedures near the end of the audit that assist the auditor when forming an overall conclusion as to whether the financial report is consistent with the auditor's understanding of the entity. (Ref: Para. A17-A19)

Investigating Results of Analytical Procedures

- 7. If analytical procedures performed in accordance with this Auditing Standard identify fluctuations or relationships that are inconsistent with other relevant information or that differ from expected values by a significant amount, the auditor shall investigate such differences by:
 - (a) Enquiring of management and obtaining appropriate audit evidence relevant to management's responses; and
 - (b) Performing other audit procedures as necessary in the circumstances. (Ref: Para. A20-A21)

* * *

Application and Other Explanatory Material

Definition of Analytical Procedures (Ref: Para. 4)

- A1. 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.
- A2. 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.
- A3. Various methods may be used to perform analytical procedures. These methods range from performing simple comparisons to performing complex analyses using advanced statistical techniques. Analytical procedures may be applied to a consolidated financial report, components and individual elements of information.

Substantive Analytical Procedures (Ref: Para. 5)

- A4. The auditor's substantive procedures at the assertion level may be tests of details, substantive analytical procedures, or a combination of both. The decision about which audit procedures to perform, including whether to use substantive analytical procedures, is based on the auditor's judgement about the expected effectiveness and efficiency of the available audit procedures to reduce audit risk at the assertion level to an acceptably low level.

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- A5. The auditor may enquire of management as to the availability and reliability of information needed to apply substantive analytical procedures, and the results of any such analytical procedures performed by the entity. It may be effective to use analytical data prepared by management, provided the auditor is satisfied that such data is properly prepared.

Suitability of Particular Analytical Procedures for Given Assertions
(Ref: Para. 5(a))

- A6. Substantive analytical procedures are generally more applicable to large volumes of transactions that tend to be predictable over time. The application of planned analytical procedures is based on the expectation that relationships among data exist and continue in the absence of known conditions to the contrary. However, the suitability of a particular analytical procedure will depend upon the auditor's assessment of how effective it will be in detecting a misstatement that, individually or when aggregated with other misstatements, may cause the financial report to be materially misstated.
- A7. In some cases, even an unsophisticated predictive model may be effective as an analytical procedure. For example, where an entity has a known number of employees 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 report and reducing the need to perform tests of details on the payroll. The use of widely recognised trade ratios (such as profit margins for different types of retail entities) can often be used effectively in substantive analytical procedures to provide evidence to support the reasonableness of recorded amounts.
- A8. 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 provide persuasive evidence and may eliminate the need for further verification by means of tests of details, provided the elements are appropriately verified. In contrast, calculation and comparison of gross margin percentages as a means of confirming a revenue figure may provide less persuasive evidence, but may provide useful corroboration if used in combination with other audit procedures.

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- A9. The determination of the suitability of particular substantive analytical procedures 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 are deficient, the auditor may place more reliance on tests of details rather than on substantive analytical procedures for assertions related to receivables.
- A10. Particular substantive analytical procedures may also be considered suitable 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 analytical procedures to an ageing of customers' accounts in addition to performing tests of details on subsequent cash receipts to determine the collectability of the receivables.

Considerations Specific to Public Sector Entities

- A11. The relationships between individual financial report 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 capitalised, there may be no relationship between expenditures on, for example, inventories and fixed assets and the amount of those assets reported in the financial report. Also, industry data or statistics for comparative purposes may not be available in the public sector. However, other relationships may be relevant, for example, variations in the cost per kilometre of road construction or the number of vehicles acquired compared with vehicles retired.

The Reliability of the Data (Ref: Para. 5(b))

- A12. The reliability of data is influenced by its source and 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:

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- (a) Source of the information available. For example, information may be more reliable when it is obtained from independent sources outside the entity;⁴
 - (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 specialised 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; and
 - (d) Controls over the preparation of the information that are designed to ensure its completeness, accuracy and validity. 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 performing substantive analytical procedures in response to assessed risks. When such controls are effective, the auditor generally has greater confidence in the reliability of the information and, therefore, in the results of analytical procedures. The operating effectiveness of controls over non-financial information may often be tested in conjunction with other tests of controls. For example, in establishing controls over the processing of sales invoices, an entity may include controls over the recording of unit sales. In these circumstances, the auditor may 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. ASA 500 establishes requirements and provides guidance in determining the audit procedures to be performed on the information to be used for substantive analytical procedures.⁵
- A14. The matters discussed in paragraphs A12(a)-A12(d) are relevant irrespective of whether the auditor performs substantive analytical procedures on the entity's period end financial report, or at an interim date and plans to perform substantive analytical procedures for the remaining period. ASA 330 establishes requirements and

⁴ See ASA 500 *Audit Evidence*, paragraph A31.

⁵ See ASA 500, paragraph 10.

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provides guidance on substantive procedures performed at an interim date.⁶

Evaluation Whether the Expectation Is Sufficiently Precise (Ref: Para. 5(c))

A15. Matters relevant to the auditor's evaluation of whether the expectation can be developed sufficiently precisely to identify a misstatement that, when aggregated with other misstatements, may cause the financial report to be materially misstated, include:

- 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 reports of components of a diversified entity, than when applied to the financial report 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 A12-A13 above.

Amount of Difference of Recorded Amounts from Expected Values that Is Acceptable (Ref: Para. 5(d))

A16. The auditor's determination of the amount of difference from the expectation that can be accepted without further investigation is influenced by materiality⁷ and the consistency with the desired level of assurance, taking account of the possibility that a misstatement, individually or when aggregated with other misstatements, may cause the financial report to be materially misstated. ASA 330 requires the auditor to obtain more persuasive audit evidence the

⁶ See ASA 330, paragraphs 22-23.

⁷ See ASA 320 *Materiality in Planning and Performing an Audit*, paragraph A13.

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higher the auditor's assessment of risk.⁸ Accordingly, as the assessed risk increases, the amount of difference considered acceptable without investigation decreases in order to achieve the desired level of persuasive evidence.⁹

Analytical Procedures that Assist When Forming an Overall Conclusion

(Ref: Para. 6)

- A17. The conclusions drawn from the results of analytical procedures designed and performed in accordance with paragraph 6 are intended to corroborate conclusions formed during the audit of individual components or elements of the financial report. This assists the auditor to draw reasonable conclusions on which to base the auditor's opinion.
- A18. The results of such analytical procedures may identify a previously unrecognised risk of material misstatement. In such circumstances, ASA 315 requires the auditor to revise the auditor's assessment of the risks of material misstatement and modify the further planned audit procedures accordingly.¹⁰
- A19. The analytical procedures performed in accordance with paragraph 6 may be similar to those that would be used as risk assessment procedures.

Investigating Results of Analytical Procedures (Ref: Para. 7)

- A20. Audit evidence relevant to management's responses may be obtained by evaluating those responses taking into account the auditor's understanding of the entity and its environment, and with other audit evidence obtained during the course of the audit.
- A21. The need to perform other audit procedures may arise when, for example, management is unable to provide an explanation, or the explanation, together with the audit evidence obtained relevant to management's response, is not considered adequate.

⁸ See ASA 330, paragraph 7(b).

⁹ See ASA 330, paragraph A19.

¹⁰ See ASA 315, paragraph 31.

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Conformity with International Standards on Auditing

This Auditing Standard conforms with International Standard on Auditing ISA 520 *Analytical Procedures*, issued by the International Auditing and Assurance Standards Board (IAASB), an independent standard-setting board of the International Federation of Accountants (IFAC).

Paragraphs that have been added to this Auditing Standard (and do not appear in the text of the equivalent ISA) are identified with the prefix “Aus”.

Compliance with this Auditing Standard enables compliance with ISA 520.