7 Materiality and Risk

Two of the fundamental concepts that underlie the logic of the audit process are materiality and risk. So far, we have discussed planning and the auditors' assessment of client business risk, fraud risk, and the risk of material misstatement. This chapter will help you understand the audit risk model and how the risk of material misstatement is used to determine an acceptable detection risk, which forms the basis of the audit strategy. We will also examine materiality and consider its role in planning the audit and evaluating the results of tests.

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Understand and apply the concept of materiality to the audit.
2. Use professional judgment to determine overall (or planning) and performance materiality.
3. Apply materiality to evaluate audit findings.
4. Define risk in auditing.
5. Understand the audit risk model, its components, and its relevance to audit planning.
6. Understand and evaluate the factors that determine acceptable audit risk.
7. Use professional judgment and apply the audit risk model to develop an audit strategy.
8. Understand how audit risk and materiality are related to audit evidence and the audit process.

STANDARDS REFERENCED IN THIS CHAPTER

CAS 315 – Identifying and assessing the risks of material misstatement through understanding the entity and its environment

CAS 320 – Materiality in planning and performing an audit

CAS 450 – Evaluation of misstatements identified during the audit

CAS 500 – Audit sampling

Risk Assessment and Materiality—The Drivers of the Audit Process

In June 2013, the United Kingdom's Financial Reporting Council, the equivalent to Canada's CPAB, introduced a new standard requiring public company auditors to provide "long form" audit reports which include a description of risks of material misstatement and how they impacted audit strategy, as well as an explanation of materiality in planning and performing the audit and how materiality influenced the scope of the audit. As a result, a "wealth of information" is now publicly available and, as noted by KPMG UK in its recent analysis of 134 annual reports, "This is a further step forward in the transparency of audit."

So what are some of the key audit risks that UK auditors are facing? The most common risks are impairment (particularly goodwill), taxation provisions, and revenue recognition—financial statement items that tend to be subjective and apply to a wide range of businesses. For

continued >

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continued

instance, in the InterContinental Hotel Group audit report, here are three of the five areas that Ernst & Young concluded have a high risk of material misstatement:

- Measurement of the future redemption liability of the Group's loyalty program;
- Accounting for the hotel assessments collected as part of the revenue cycle and the allocation of expenditures related to marketing, advertising, and loyalty points;
- Accounting for disposal of InterContinental London Park Lane Hotel.

In addition to financial statement items, auditors were also concerned about the risk of management override of controls and revenue fraud risk. And what do those key risks mean to the conduct of the audit? As explained in the InterContinental Hotel Group's audit report: these risks determine audit strategy—"the allocation of resources on the audit and directing the efforts of the audit team" and the appropriate risk response. For instance, in the case of one key risk, the disposal of London Park Lane Hotel, the audit team's risk response consisted of the following:

- Reviewed the purchase and sale agreement;
- Challenged key assumptions applied to the valuation of the hotel;
- Validated the calculation of the accounting gain; and
- Ensured financial statement disclosures were in accordance with accounting standards.

The auditors also explained that they determined the planning materiality based upon 5 percent of adjusted profit before tax, excluding exceptional items. And what is the purpose of materiality? As explained in the audit report, "it provided a basis for determining the nature, timing and extent of risk assessment procedures, identifying and assessing the risk of material misstatement and determining the nature, timing and extent of further audit procedures." So, it would seem that materiality is another key driver of the audit process.

As you read through the chapter, consider the following questions:

- What factors are considered when determining materiality? (LO 1, 2)
- How does materiality affect the auditor's evidence and audit strategy decisions? (LO 3, 8)
- What factors determine whether there is a high risk of material misstatement in the financial statements? (LO 4, 5, 6)
- How do those risks affect audit risk and the auditor's evidence and audit strategy decisions? (LO 6, 7, 8)

Sources: Naomi Rainey, "Extended audit and audit committee reports produced varied results," *Accountancy Age*, June 20, 2014." Holding auditors accountable on reports," *New York Times*, May 9, 2014, p. B1. KPMG UK, "Audit committees' and auditors' reports," accessed March 21, 2015, at **http://www.kpmg.com/UK/en/IssuesAndInsights/ArticlesPublications/Pages/audit-committees-and-auditors-reports.aspx**. InterContinental Hotels and Resorts 2013 annual report, accessed March 21, 2015, at **http://www.ihgplc.com/files/reports/ar2013/docs/IHG_Report_2013.pdf**. Katherine Bragshaw, "New-style audit reports: The complete picture," *Accountancy Live*, November 27, 2014, accessed March 21, 2015, at **https://www.accountancylive.com/new-style-audit-reports-complete-picture**.

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IN this chapter, we move to the two key concepts highlighted in the opening vignette—risk and materiality—and discuss how they underlie the strategic audit approach, both for the overall financial statements and for the specific classes of transactions, account balances, and disclosures. We start the chapter by looking at materiality and its importance throughout the audit process, we then discuss the audit risk model, an important planning and evaluation tool, and finally we look at the relationships among materiality, risk, and audit evidence.

Materiality

LO 1 Understand and apply the concept of materiality to the audit.

CAS

CAS 320, *Materiality in planning and performing an audit*, explains materiality:

> Misstatements, including omissions, are considered to be material if they, individually or in the aggregate, could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

One of the biggest misunderstandings around materiality is that it is simply a matter of following the audit firm's guidelines or a rule of thumb. Consider the explanation in Ernst & Young's audit report for InterContinental Hotel Group. In this case, materiality is "based upon 5 percent of adjusted profit before tax, excluding exceptional items."While Ernst & Young would certainly have materiality guidelines that would constrain the audit team's choices, the decision would still require considerable professional judgment. For instance, how did those auditors decide that 5 percent was appropriate, and that net income was an appropriate base? As CAS 320.2 highlights, in determining overall materiality:

- Judgments are made in light of the circumstances surrounding the entity and are affected by the size and nature of the misstatement, or a combination of both;
- Judgments about what is material to users of the financial statements are based on a consideration of the common financial information needs of users as a group, not each user individually (such as a bank, bondholder, or shareholder).

Materiality—the magnitude of an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement.

It is important to remember that **materiality** is a relative rather than an absolute concept. A misstatement of a given magnitude might be material for a small company, whereas the same dollar error could be immaterial for a large one. For example, a total error of $1 million would be extremely material for Hillsburg Hardware Limited because net income before tax is about $5.7 million. It would be immaterial for a company such as InterContinental Hotels and Resorts, which has total assets and net income of several billion dollars. In other words, it is impossible to establish any dollar-value guidelines for materiality applicable to all audit clients.

Figure 7-1 provides an overview of the concept of materiality—a key point highlighted is that an amount is material if it will change a user's decision. You note that it highlights some of the key external users and their economic decisions. It's important to remember that management is also a key user and, as we discuss throughout the chapter, the potential impact of performance incentives is an important consideration in determining overall materiality.

Materiality is a driver of the entire audit process—in planning, evaluating the results, and reporting decisions. Figure 7-2 summarizes the various materiality related decisions that occur during the audit process. The first three decisions are made in the planning stage and form the benchmarks to evaluate the results of the audit testing, to make conclusions (on the financial statements as a whole as well as the various accounts and disclosures), and to complete the audit (which includes issuing the audit report and reporting to those in charge of governance). If the auditor determines that there is a material misstatement, he or she will bring it to the client's attention so that a correction can be made. If the client refuses to correct the statements, a modified opinion must be issued. (We discuss the types of opinions in Chapter 19.)

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Figure 7-1 The Concept of Overall Materiality

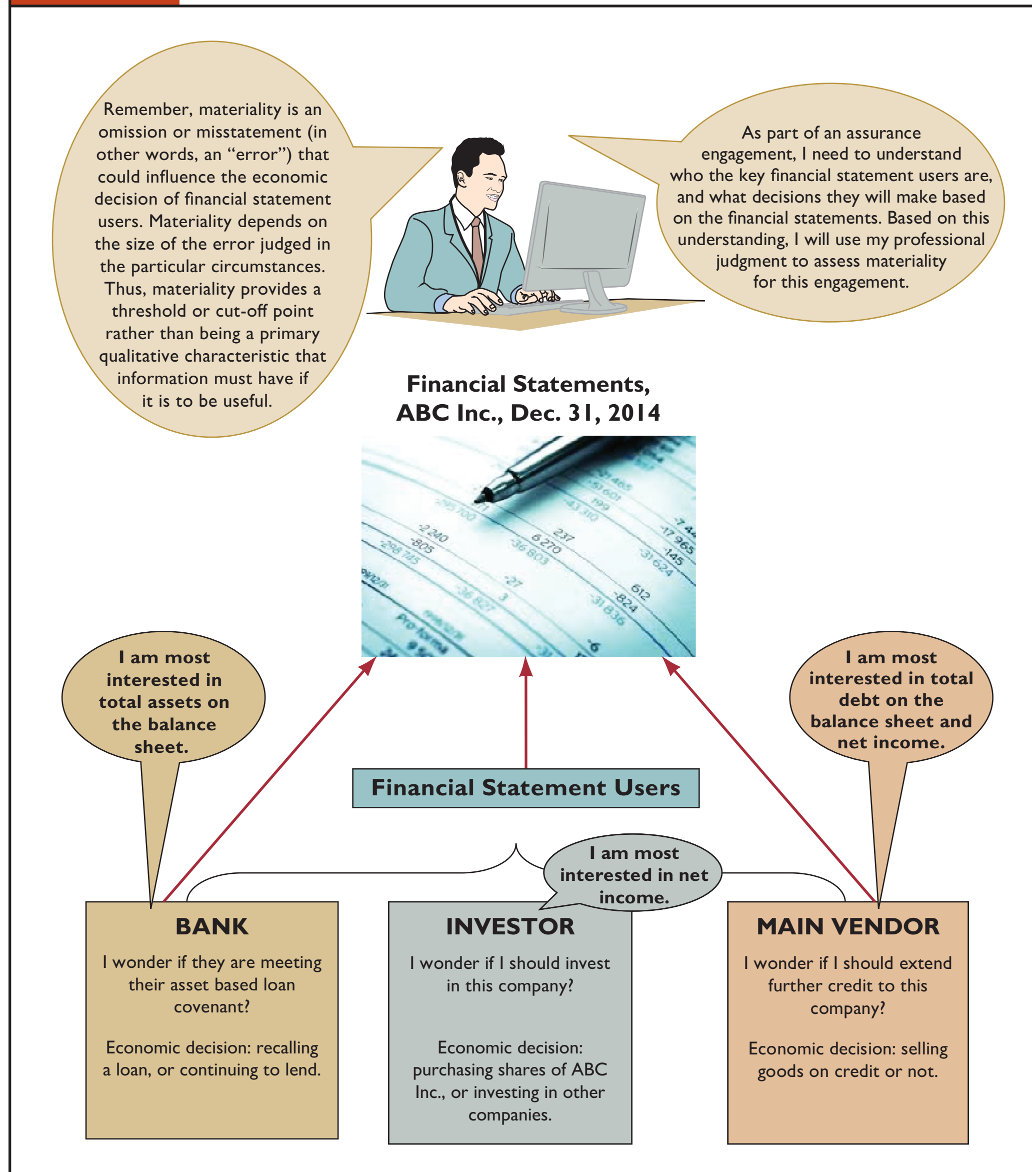
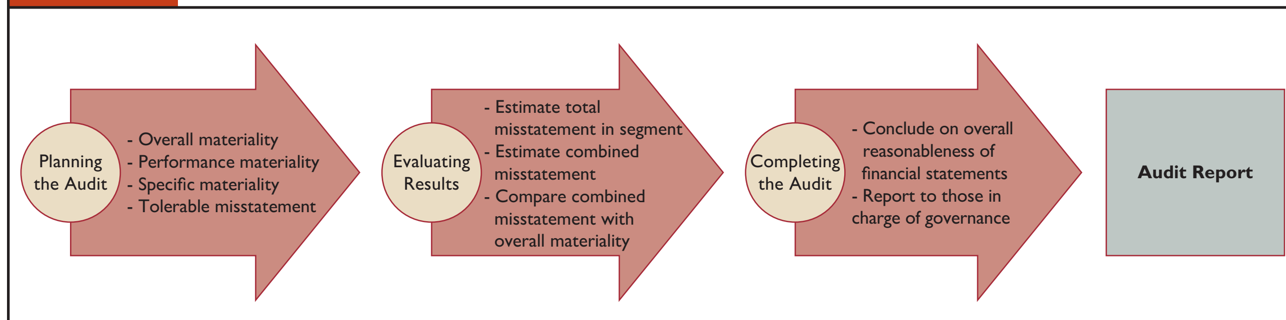


Figure 7-2 Materiality Decisions Throughout the Audit Process



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Materiality and Planning the Audit

LO 2 Use professional judgment to determine overall (or planning) and performance materiality.

The four decisions that occur during the planning phase of the audit provide the benchmarks for decisions throughout the audit about:

1. *Overall* or planning materiality (which is the term Ernst & Young used in its InterContinental audit report);
2. *Performance materiality*, an amount lower than planning materiality that takes into account the potentially undetected material errors; and
3. *Specific performance materiality*, the application of performance materiality to a specific class of transactions, balances, and disclosures. It is either equal to or less than performance materiality.

Overall Materiality

CAS

CAS 320 states: "When establishing the overall audit strategy, the auditor shall determine materiality for the financial statements as a whole"—this is what is referred to as **overall materiality**. The reason for setting overall materiality is to help the auditor plan the appropriate evidence to accumulate. If the auditor sets a low dollar amount, more evidence is required than for a high amount. There are three steps in determining overall materiality:

Overall materiality—materiality for the financial statements as a whole.

1. Selecting an appropriate benchmark;
2. Identifying appropriate financial data for the selected benchmark;
3. Determining the percentage to be applied to the selected benchmark.

SELECTING THE BENCHMARK As highlighted in Figure 7-1, auditors develop an understanding of the users of the financial statements specific to their client to determine the most appropriate benchmark. Examples of benchmarks include: revenue, profit before taxes, total assets or expenses. The auditor makes a judgment on which benchmark to use by understanding what the users of the financial statements are most likely concerned about. For example, if the entity is mainly financed by equity investors who are concerned with financial performance, then the auditor will likely use net income before taxes as a benchmark.

CAS

CAS 320 identifies a number of factors that affect the selection of an appropriate benchmark. These include:

- Elements of the financial statements (assets, liabilities, equity, income, expenses);
- Whether there are items on which the users tend to focus (for example, the users may tend to focus on net income);
- Past history with audits (numerous adjustments required? any restatements?);
- The nature of the entity and the industry;
- The entity's ownership structure and the way it is financed (for example, if the company is solely financed by debt, then the users may put more emphasis on assets than earnings (as in the case of shareholders));
- The relative volatility of the benchmark (does net income change dramatically from year to year?).

Table 7-1 provides examples of different types of organizations, the associated user needs, and the most common benchmark used by auditors.

IDENTIFYING FINANCIAL DATA Identifying the financial data is not as straightforward as it appears. Usually, when the auditor is planning the audit, the current year-end results are not available (since the planning is done prior to year-end). The auditor usually uses the prior period's financial results, the period-to-date results, and budgets/forecasts for the current period, adjusted for significant changes (e.g., acquisitions) and changes in the industry/environment.

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Table 7-1 Common Materiality Benchmarks

Entity Description	User Decision	Common Benchmark
Mature entity that is financed by equity (public company with shares widely held)	Evaluate entity performance	Net income before taxes
Start-up entity that is financed by equity and has not yet generated net income (public company with shares widely held)	Evaluate entity viability	Revenue, assets, or net assets
Mature entity that is financed by one private equity investor whose next income is consistently low because the owner/manager takes much of the income by way of bonus; the entity has some debt financing which requires an audit	Evaluate entity ability to repay debt	Net income adjusted for the owner/manager bonus, or total assets
Entity that is financed mainly by debt	Evaluate entity ability to repay debt	Total assets
Not-for-profit organization	Evaluate if organization spending is consistent with objectives of the organization	Total revenue or total expenses

DETERMINING THE PERCENTAGE Common percentages that are appropriate are:

1. 5 to 10 percent of net income before taxes (this may need to be normalized)
2. ½ to 5 percent of gross profit
3. ½ to 1 percent of total assets
4. ½ to 5 percent of shareholders' equity
5. ½ to 1 percent of revenue
6. The weighted average of methods 1 to 5
7. A reducing percentage of the greater of revenue and assets
8. ½ to 3 percent of expenses (nonprofits)

The percentage that the auditors choose is a function of the type of organization and the users' needs. A common percentage for profit organizations is 5 percent of net income; however, this may be increased or decreased depending upon the circumstances. As highlighted in Auditing in Action 7-1, there can be considerable variation with the percentages as well as the appropriate bases.

auditing in action 7-1

Overall Materiality at Different Organizations

So what are the benchmarks and percentages being used in practice? Net income before taxes is popular, but it is not the universal benchmark. The UK's Financial Reporting Council (FRC, the UK equivalent to the CPAB) conducted a recent review of 26 Big Six firms' audit files encompassing a wide range of industries (retail, construction, real estate, industrial products, support services, banking, software, and mining), and found that 15 of the files used net income before taxes and 8 of the remaining 11 used revenue.

Below is a sample of some benchmarks and percentages that are being used by a variety of public companies listed on the London stock exchange, by Canada's largest municipality (Toronto), and by Toronto's transit commission:

Entity	Industry	Benchmark	Percentage
Diploma plc	Specialized technical products (such as hydraulic seals and specialized wiring)	Net income before taxes	5%
British Sky Broadcasting Group	Home entertainment, communications, and pay TV	Net income before taxes	4%
New World Resources	Mining	Revenue	1%
City of Toronto	Municipality	Budgeted expenditures	1.25%
Toronto Transit Commission	Public transportation	Total operating expenses	1.5%

Sources: Diploma plc 2014 annual report, available at **http://www.diplomaplc.com/investor-relations/annual-report-accounts-2014-%28online%29/financial-statements.aspx.** British Sky Broadcasting Group 2014 annual report, available at **https://corporate.sky.com/about-sky/reports.** New World Resources 2013 annual report, available at **http://www.newworldresources.eu/en/media/download.** PricewaterhouseCoopers, City of Toronto Audit Plan for the year ending December 31, 2014. Toronto Transit Commission audit committee report, PricewaterhouseCoopers Consolidated Financial Statements audit plan for the year ended December 31, 2013.

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Table 7-2	Calculation of Performance Materiality for Hillsburg Hardware	
Materiality, based on net income before extraordinary items		$496 000
Less		
Anticipated misstatements from specific tests	$ 50 000	
Carry forward misstatements from the previous year	80 000	
Anticipated client corrections	(75 000)	55 000
Performance materiality available for unanticipated misstatements		$441 000

Impact of Qualitative Factors

Certain qualitative factors may cause the auditor to adjust materiality (which affects the amount of testing). The auditors cannot plan to detect smaller amounts but must react if they are discovered. Certain types of misstatements are likely to be more important to users than others, even if the dollar amounts are the same. There may be instances where management will try to argue that an amount is quantitatively immaterial and therefore does not need to be corrected in the audited financial statements. However, as highlighted in Table 7-2, qualitative factors might lead to the conclusion that the misstatement is material. Auditors should consider these factors when setting overall materiality, performance materiality, and specific performance materiality, so that the audit is more likely to identify misstatements that might seem small but could make a difference to the relevant user. (See Auditing in Action 7-1 for discussion of qualitative features when considering specific performance materiality.)

Determining Overall Materiality for Hillsburg

CAS

Given that CAS 320 expects auditors to use professional judgment in materiality, there are no specific guidelines as to what the percentages and benchmarks should be. However, firms do develop their own guidelines to help guide as well as constrain auditors' choices.

Figure 7-3 is the working paper completed by, the audit senior, documenting the decisions regarding overall materiality. The form also provides some details on the firm's guidelines to help Leslie, the audit manager, document and make her decisions.

Performance Materiality

Performance materiality—an amount less than materiality that the auditor uses to plan and conduct the financial statement audit engagement, to reduce the likelihood that uncorrected errors exceed materiality.

As well as overall materiality, CAS 320 requires that auditors determine **performance materiality**. This is set at an amount less than the overall materiality and acts like a "safety buffer" to lower the risk of aggregate uncorrected and undetected misstatements being material for the overall financial statements.Table 7-2 shows an example of calculating performance materiality for Hillsburg Hardware.

In practice, it is difficult to project the current year's misstatements or client corrections, and most auditors usually set performance materiality as a percentage of overall materiality (generally between 50 percent and 90 percent).[1] However, what percentage to use involves considerable professional judgement. The auditor should take into account factors such as understanding of the entity, misstatements identified in prior years, and relevant qualitative factors in determining the appropriate percentage.

[1] Based upon *The Canadian Professional Engagement Manual* (C-PEM), a recent study conducted by the United Kingdom's Financial Reporting Council and a recent study conducted of the American Big Eight firms—see footnote 2.

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Figure 7-3 Documenting Preliminary Decisions for Overall Materiality

Microsoft Excel

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Documenting Preliminary Decisions for Overall Materiality

	Name	Date
Prepared by	Leslie Nagan	October 15, 2014
Reviewed by	Joe Anthony	October 31, 2014

Entity: Hillsburg Hardware

Period Ended: December 31, 2014

Objective: To document decisions on overall materiality for the purpose of planning the engagement

Principal Users of Financial Statements	
Users	**Comments**
Limited number of shareholders	*Although Hillsburg is public, the shares are not widely held*
Bank	*Hillsburg has three notes payable totalling $28 300*

Nature and Impact of Qualitative Considerations (Profitability Trends, Regulations, Particular Sensitivities, Compliance With Loan Covenants, User Expectations)	
Nature	**Impact**
Regulations	*Public company—no relevant industry-specific regulations*
Profitability trend	*Positive growth in profitability*
Sensitivities	*No significant fluctuations in gross margins*

Information for Determining Overall Materiality of the Financial Statements (in thousands of dollars)

Planning Data	This Period	Last Period	Preceding Period
Sales/revenues	*143 086*	*131 226*	*122 685*
Gross margins	*39 845*	*36 350*	*33 961*
Other expenses	*N/A*	*N/A*	*N/A*
Income before extraordinary items	*5 681*	*4 659*	*3 351*
Adjustments for nonrecurring items, discontinued operations	*(720)*	*N/A*	*N/A*
Adjusted net income	*4 961*	*4 659*	*3 351*
Total assets	*61 367*	*60 791*	*59 696*
Previous materiality			

(Continued)

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Figure 7-3 Documenting Preliminary Decisions for Overall Materiality (*Continued*)

Microsoft Excel

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Determine Quantitative Materiality				
Type of Entity	**Basis**	**Possible Percentages***	**Percentage Applied**	**Possible Materiality**
Profit-oriented	Income from continuing operations	5% to 10%	10%	$ 496
	Gross Revenues	½% to 2%	2%	2 862
	Assets	½% to 1%	1%	614
	Equity	½% to 5%	5%	1 123
Not-for-profit	Total revenues or expenses	½% to 3%	N/A	N/A
	Other (describe)		N/A	N/A

*These percentages are from BKK's materiality guidelines.

Based upon the above considerations and professional judgment, the overall materiality for planning purposes is $496 000.

Rationale: Hillsburg's shares are not widely held (only 1000 shareholders), there were few errors in the past, and there are no major concerns regarding management integrity or the entity. Therefore, a higher percentage is warranted and the benchmark of net income before taxes (adjusted for extraordinary income) is appropriate.

A recent research study of the American Big Eight firms' materiality guidelines[2] found that the following factors are taken into consideration when setting performance materiality:

- Overall engagement risk is considered high (e.g., high-risk industries, unusually high market pressures, first year and special purpose financial statements);
- Fraud risks (e.g., tone at the top, internal or external pressures, ineffective governance controls, incompetent accounting personnel, contentious behaviour with auditors, evasive responses to audit inquiries);
- A history of identified misstatements in prior period audits;
- Increased number of accounting issues that require significant judgment and/or more estimates with high estimation uncertainty;
- Identified misstatements during the course of the current year audit that indicate that the remaining margin for possible undetected misstatements is insufficient;
- A deficient control environment;
- A history of material weaknesses, significant deficiencies, and/or a high number of deficiencies in internal control;

[2] Aasmund Eilifsen and Mark Messier, "Materiality guidance of major public accounting firms," *Auditing: A Journal of Practice and Theory*. doi: http://dx.doi.org/10.2308/ajpt-50882.

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• High turnover of senior management or key financial reporting personnel; and
• The entity operates in a number of locations.

In performing and evaluating audit tests, performance materiality (not overall materiality) is what is used for decisions such as calculating sample sizes and concluding whether or not an account is materially misstated. If performance materiality is set too high, the auditor might not perform sufficient procedures to detect material misstatements. Conversely, if performance materiality is too low, the auditor may perform more audit procedures than necessary.

Specific Performance Materiality

Specific performance materiality–the application of performance materiality to a specific class of transactions, balances, and disclosures; this is either equal to or less than performance materiality.

Risk of material misstatements–the expectation of misstatements after considering the effect of internal controls on inherent risk.

CAS 320.A12 also refers to **specific performance materiality**, which "is materiality level determined for a particular class of transactions, account balance or disclosure." When auditors develop specific performance materiality, they take into consideration the economic consequences of the users' decisions, **risk of material misstatements**, and any other specific user requirements (say, a particular regulator) in relation to a specific class of transactions, balance, or disclosure. Some qualitative factors [3] that auditors take into account are:

- *Analytical procedures results*. If preliminary analytical review signals a potential misstatement with an account, the auditor may use a lower materiality level for that account so it will be audited more closely.
- *Prior period adjustments*. An account that has no adjustments after detailed substantive testing in a prior audit might be assigned a higher materiality level if the overall environment is stable.
- *Consequences of misstatements*. Some accounts might be allocated a very small materiality amount if the consequences of a misstatement could be severe. For example, if failure to make adequate patent payments could result in loss of a key technology, the auditor may use a low level of materiality for that account. Similarly, if there is a bank loan that requires a certain current ratio and, if the entity does not maintain that ratio, the bank may not continue with the financing, the auditor would use a lower materiality for the accounts included in the current ratio calculation.
- *Use of account data for other purposes*. An account might be audited 100 percent regardless of materiality if data accuracy is important for other purposes or reasons. For example, executive compensation might be audited very closely because it must be reported separately to the securities commission or the board of directors requires the information. Another example would be related party transactions—aside from note disclosure requirements, there are specific reporting requirements for securities commissions and the Canada Revenue Agency.

Revising Materiality

CAS

Since overall materiality is set early in the planning stage, events may occur subsequently that may change the original calculation.CAS 320 provides some examples that would cause the auditor to revise materiality, such as if the company decides to dispose of a major part of the business, or if the actual results are substantially different from the anticipated period-end results.

[3] Thomas McKee and Aasmund Eilifsen, "Current materiality guidance for auditors," *CPA Journal*, July 2000, accessed at http://www.nysscpa.org/cpajournal/2000/0700/00-0701Departments/d75400a.htm.

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auditing in action 7-2

Performance Materiality in Practice

In arecent review of materiality at the region's Big Six firms, the United Kingdom's Financial Reporting Council (FRC) found that firms have widely different policies on both overall materiality and performance materiality. The recommended performance materiality ranged from a low of 50–75 percent to a maximum allowable high of 90 percent. This firm emphasized a judgmental approach, which emphasized a focus on historical errors (this is similar to the approach shown in Table 7-2 for Hillsburg Hardware); the firm is considering lowering its guidelines. The FRC also found that the firms defaulted to the highest rate in the allowable range and it concluded that there was: ". . . no evidence that any judgment had been exercised. Auditors should ensure that the consideration of risk is a key factor in setting performance materiality."

The FRC found that, although the firms had specific performance materiality guidelines, the FRC did not identify any instances where these were enforced in practice. However, the FRC did note that all the firms require more detailed work to be performed for sensitive areas such as executive remuneration and related party transactions, irrespective of the overall materiality level set. It would seem, from the list of specific materiality factors provided above, that the only applicable factor is the use of data for other purposes. Otherwise, it would seem firms are using performance materiality to determine sample sizes and to assess misstatements.

Source: Financial Reporting Council, *Audit quality thematic review: Materiality*, accessed March 28, 2015, at **https://www.frc.org.uk/Our-Work/Publications/Audit-Quality-Review/Audit-Quality-Thematic-Review-Materiality.pdf**.

Applying Materiality—Evaluating Results

LO 3 Apply materiality to evaluate audit findings.

So far, we have discussed the role of materiality in planning the audit—the remaining decisions, summarized in Figure 7-1, involve applying materiality in performing audit tests, evaluating the results, and making conclusions. We will discuss this in more detail when we consider determining audit sample sizes (Chapter 11), developing and performing substantive and control audit tests (Chapter 12 to Chapter 17), and evaluating audit results (Chapter 18).

CAS

Tolerable misstatement—the application of performance materiality to a specific sampling procedure; it is either less than or equal to performance materiality.

Although performance materiality is usually the basis for calculating sample sizes, CAS 500, *Audit sampling*, in its explanation of **tolerable misstatement** (which is an application of performance materiality to a specific sampling procedure), explains that there may be circumstances when tolerable misstatement is less than performance materiality, such as:

- Based upon a past history of misstatements, the auditor expects a high number of actual and projected misstatements;
- Management is often resistant to proposed adjustments;
- There are a significant number of locations, subsidiaries, or samples within the account and it is necessary to apply separate procedures to the various locations that will be combined for reaching an audit conclusion on that particular account.

CAS

Trivial amounts—matters that are clearly inconsequential, whether taken individually or in aggregate and whether judged by any criteria of size, nature, or circumstances.

In addition to tolerable misstatement, auditors must decide what are clearly **trivial amounts**, which, according to CAS 450,"will be matters that are clearly inconsequential, whether taken individually or in aggregate and whether judged by any criteria of size, nature or circumstances." CAS 450 also highlights that "clearly trivial" is not another expression for "not material."Although CAS 450 requires the auditor to request that uncorrected misstatements be corrected, clearly trivial amounts can be ignored when proposing adjustments to the client management. Another important consideration when evaluating misstatements is the qualitative nature of the misstatement. Table 7-3 summarizes the factors discussed in CAS 450. We will revisit this in Chapter 18.

Applying Materiality—Reporting Issues

The final two decisions highlighted in Figure 7-1 are related to the completion stage of the audit. Regarding issuing the audit report, the auditor will conclude on the overall reasonableness of the financial statement using the benchmark of overall materiality.

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concept check

C7-1 What is the difference between overall materiality and performance materiality? How does the use of performance materiality affect the audit process?

C7-2 Why do auditors use specific performance materiality?

Table 7-3 Qualitative Reasons Why the Misstatement Is Material

Materiality may be a threshold; however, it is more than a simple decision of deciding whether the misstatement is over or under quantitative materiality. CAS 450 provides a list of qualitative factors that may cause the auditor to reconsider whether a quantitatively "immaterial" misstatement is actually material.

- The potential effect of the material misstatement on trends, especially trends in profitability;
- A misstatement that changes a loss into income or vice versa;
- The potential effect of the misstatement on the entity's compliance with debt covenants, other contractual agreements, and regulatory provisions;
- The existence of statutory reporting requirements that affect materiality thresholds;
- A misstatement that has the effect of increasing management's compensation;
- The significance of the misstatement or disclosures relative to performance measures such as earnings per share or net income relative to expectations; and
- The motivation of management with respect to the misstatement such as managing earnings or smoothing earnings trends.

Again, qualitative factors must be considered. And, in the rare circumstance that there is an uncorrected material misstatement(s), the auditor must determine if the misstatement is materially pervasive or if it can be isolated to specific accounts or disclosures. This will determine which type of audit report is issued. We will discuss these reporting decisions in more depth in Chapter 19.

CAS

Regarding reporting to those in charge of governance, CAS 450:12 requires that the auditor communicate with "those in charge of governance uncorrected misstatements and the effect that they, individually or in aggregate, may have on the opinion in the auditor's report." In practice, as part of the audit plan that the auditor presents to the audit committee, the auditor and the audit committee would agree upon the appropriate quantitative threshold (although some audit committees may wish to be advised of all misstatements). For instance, in the case of the City of Toronto, the auditor reports all adjusted and unadjusted differences in excess of 1 percent of overall materiality to the audit committee.

LO 4 Define risk in auditing.

Risk and Audit Planning

Assessing and managing risk is the key to conducting a quality audit. In Chapter 6, we discussed key risk assessments made by the auditor in relation to client acceptance and continuance, to gain an understanding of the client and environment, which involved assessing client business risk and fraud risk. Recall that the overall goal was to determine the risk of material misstatement—for the overall financial statements and for the specific assertions related to classes of transactions, balances, and disclosures.

If the identified risk is pervasive, meaning it affects overall financial reporting risk, then the auditor will adjust the overall audit strategy accordingly. As discussed in Chapter 6, possible adjustments would be:

- Assign more experienced staff or specialists to the engagement;
- Instruct staff to use a heightened level of professional skepticism; and
- Closer supervision and review.

Auditing in Action 7-3, regarding the Livent audit, is an example of how the auditors adjusted the overall audit strategy to address key risks.

The excerpt from the Livent audit planning memo highlights audit risk factors (a public entity which has been under considerable scrutiny) and business risk. It also highlights some specific accounts and assertions that the auditor would focus on—capitalization of preproduction costs (these are costs which were deferred until

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auditing in action 7-3

Risk Assessment and Planning the Risk Response for the Livent Audit

Although the ICAO disciplinary committee concluded that three of the four partners involved with the Livent audit failed to meet the standards of professional conduct, the disciplinary committee acknowledged that the audit team had appropriately identified the risks and developed an appropriate overall audit strategy or risk response. Below is an excerpt from the audit planning memo:

Details of Risk

1. The company is a public entity as both an SEC and OSC registrant. The company, its financial reports and management historically have attracted a high level of scrutiny and public observation. Management is sensitive to reported net earnings levels.
2. The valuation of preproduction costs is subject to management estimation and financial projections. Resultant amortization and/or write-offs of preproduction costs can have significant impact on net earnings.
3. The company has entered into a number of material and unique revenue generating transactions. Management's selection of reporting methods may be aggressive.
4. The company faces both internal and external business and industry risks based on the success of its own theatrical productions and the general health of the live theatrical consumer market.

Risk Response	Comments
Ensure that the assigned audit partners and staff have the requisite experience, skills, and expertise	The client service team includes senior partners of the firm with the requisite skills
Increase the professional skepticism of all personal involved in the audit engagement	Articulated to audit staff
Increase involvement of engagement management at all stages of the audit engagement to ensure that the appropriate work is planned and its performance is properly supervised.	The engagement partners and senior audit manager will be involved with all significant audit and financial reporting issues upfront with regard to planning and their audit and resolution

Source: Institute of Chartered Accountants of Ontario Disciplinary Committee, "In the matter of Douglas Barrington, FCA, Peter Chant, FCA, Anthony Power, FCA, and Claudio Russo, CA, members of the Institute under Rule 206 of Rules of Professional Conduct, Decision and Reasons for Decision, February 11, 2007."

the shows were in production) and "material and unique" revenue transactions (both terms indicate high risk). For these significant inherent risks, the auditor would apply the logic of the audit risk model, which we discuss next, to determine the appropriate audit strategy for the relevant assertions of those particular classes of transactions and account balances.

LO 5 Understand the audit risk model, its components, and its relevance to audit planning.

The Audit Risk Model

Audit risk model—a conceptual model which auditors use as a planning tool to determine how much and what type of evidence to collect for each relevant class of transactions, account balances, and disclosures. The model reflects the relationship among audit risk (AR), inherent risk (IR), control risk (CR), and detection risk (DR); $AR = IR \times CR \times DR$.

The **audit risk model** is a conceptual tool used by auditors to help plan a risk-based audit strategy. It is important to note that it is not a precise formula—it is primarily used for planning purposes. Risks are identified when gaining an understanding of the client and environment, as explained in Chapter 6. Auditors use the audit risk model to help decide how much and what types of evidence to accumulate for each relevant assertion. It is usually stated as follows:

$$DR = \frac{AR}{IR \times CR}$$

where DR = detection risk, AR = audit risk, IR = inherent risk, and CR = control risk.

Audit risk—the risk that the auditor will express an inappropriate audit opinion when the financial statements are materially misstated.

Acceptable audit risk—how willing the auditor is to accept that the financial statements may be materially misstated after the audit is completed and an unqualified opinion has been issued.

Audit risk (or **acceptable audit risk**) is the risk that the auditor will express an inappropriate audit opinion when the financial statements are materially misstated. As depicted in this model, audit risk represents how willing the auditor is to accept that the financial statements may be materially misstated after the audit is completed and an unqualified opinion has been issued. It is important to note that standards require that the auditor consider audit risk at the financial statement level and at the account balance and disclosure levels.

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Inherent risk—the auditor's assessment of the susceptibility to material misstatement of an assertion about a class of transactions, an account balance, or a disclosure, either individually or in aggregate, before considering the effectiveness of related internal controls.

Control risk—the auditor's assessment of the risk that a material misstatement could occur in an assertion about a class of transaction, an account balance, or a disclosure, and not be prevented or detected on a timely basis by the client's internal controls.

Detection risk—the risk that the audit evidence for an audit assertion will fail to detect misstatements exceeding performance materiality.

Substantive procedures—audit procedures designed to detect material misstatements in accounts, classes of transactions, and disclosures.

Inherent risk measures the auditor's assessment of the susceptibility of an assertion about a class of transactions, an account balance, or a disclosure, either individually or in aggregate, to material misstatement, before considering the effectiveness of related internal controls.

Control risk measures the auditor's assessment of the risk that a material misstatement could occur in an assertion about a class of transaction, an account balance, or a disclosure, and not be prevented or detected on a timely basis by the client's internal controls. **Detection risk** is the risk that the audit evidence for an audit assertion will fail to detect misstatements exceeding performance materiality. There are two key points to know about detection risk: (1) detection risk determines the amount of substantive evidence that the auditor plans to accumulate, and (2) if detection risk is reduced, the auditor needs to accumulate more substantive evidence (conduct more substantive testing) to achieve the reduced planned risk. **Substantive procedures** are audit procedures designed to detect material misstatements in accounts, classes of transactions, and disclosures.

Table 7-4 illustrates how the auditor might assess the four risks at the transaction (cycle) level for a particular client. The auditor will also assess risk levels across various assertions within an individual class of transactions. For example, risks related to the existence of sales may be greater than risks related to accuracy of sales. When considering audit risk, the auditor determines overall acceptable audit risk—the amount of risk the auditor is willing to accept that there is a material misstatement after the audit is complete.

- The first row in the table shows the differences among cycles in the frequency and size of expected misstatements (A). Inherent risk for payroll is low because almost no misstatements are expected in payroll and personnel. In contrast, inherent risk for inventory is high because many misstatements are expected in inventory.
- Similarly, internal control effectiveness varies among the five cycles (B). For example, internal controls in payroll and personnel are considered highly effective (which leads the auditor to assess control risk as low), whereas those in inventory and warehousing are considered ineffective (control risk is assessed as high).
- Finally, the auditor has decided on a low willingness for material misstatements to exist (acceptable audit risk) after the audit is complete for all five cycles (C).
- These considerations (A, B, C) affect the auditor's decision about the appropriate nature, timing, and extent of substantive testing to catch material misstatements(D). For example, because the auditor expects few misstatements in payroll (A) and internal controls are effective (B), the auditor plans for less substantive testing (D) than for inventory.

Table 7-4 Illustration of Considering Risks in Different Cycles

		Revenue Cycle	Acquisition and Payment Cycle	Payroll Cycle	Inventory Cycle	Capital Acquisition and Repayment Cycle
A	**Inherent Risk**	**Medium** Expect some misstatements	**High** Expect many misstatements	**Low** Expect few misstatements	**High** Expect many misstatements	**Low** Expect few misstatements
B	**Control Risk** (Effectiveness of controls)	**Medium** (Moderate)	**Low** (High)	**Low** (High)	**High** (Ineffective)	**Medium** (Moderate)
C	**Acceptable Audit Risk**	**Low** willingness	**Low** willingness	**Low** willingness	**Low** willingness	**Low** willingness
D	**Detection Risk** (Extent of substantive testing)	**Medium** (Medium level)	**Medium** (Medium level)	**High** (Low level)	**Low** (High level)	**Medium** (Medium level)

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Following is a numerical example for discussion. The numbers used are for the inventory in Table 7-4.

$$DR = \frac{0.05}{1.0 \times 1.0} = 0.05 \text{ or } 5 \text{ percent}$$

Note that the assessments in Table 7-4 are not in numerical form. Most firms perform non qualitative assessments of risk (such as low, moderate, and high) due to the difficulty in precisely quantifying risk. When employing the audit risk model, there is a direct relationship between acceptable audit risk and planned detection risk, and an inverse relationship between acceptable audit risk and planned level of substantive testing. If the auditor decides to reduce acceptable audit risk, planned detection risk is thereby reduced, and planned substantive testing must be increased. For a client with lower overall acceptable audit risk, auditors also often assign more experienced staff or review the audit files more extensively (as in the Livent example).

Assessing Acceptable Audit Risk

LO 6 Understand and evaluate the factors that determine acceptable audit risk.

To assess acceptable audit risk, the auditor will consider factors related to engagement risk, the risk that the auditor or audit firm will suffer harm after the audit is finished, even if the audit report is correct. Three key factors that affect audit risk are the degree to which external users rely on the statements, the likelihood that a client will have financial difficulties after the audit report is issued, and the integrity of management.

The Degree to Which External Users Rely on the Statements

When external users place heavy reliance on the financial statements, it is appropriate to decrease acceptable audit risk. When the statements are heavily relied on, a great social harm can result if a significant misstatement remains undetected in the financial statements. Auditors can more easily justify the cost of additional evidence when the loss to users from material misstatements is substantial. Several factors are good indicators of the degree to which external users rely on the financial statements:

- *Client's size.* Generally speaking, the larger a client's operations, the more widely the statements are used. The client's size, measured by total assets or total revenues, will have an effect on acceptable audit risk.
- *Distribution of ownership.* The statements of publicly held corporations are normally relied on by many more users than those of closely held corporations. For these companies, the interested parties include the provincial securities commission, the SEC, financial analysts, and the general public.
- *Nature and amount of liabilities.* When statements include a large amount of liabilities, they are more likely to be used extensively by actual and potential creditors than when there are few liabilities.

The Likelihood That a Client Will Have Financial Difficulties After the Audit Report Is Issued

In situations where the auditor believes the chance of financial failure or loss to be high and a corresponding increase in engagement risk occurs, acceptable audit risk should be reduced. It is difficult for an auditor to predict financial failure before it occurs, but certain factors are good indicators of significant doubt about the entity's ability to continue as a going concern:

- *Liquidity position.* If a client is constantly short of cash and working capital, it indicates a future problem in paying bills. The auditor must assess the likelihood and significance of a steadily declining liquidity position.

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- *Profits (losses) in previous years.* When a company has rapidly declining profits or increasing losses for several years, the auditor should recognize the future solvency problems that the client is likely to encounter.
- *Method of financing growth.* The more a client relies on debt as a means of financing, the greater the risk of financial difficulty if the client's operating success declines. Auditors should evaluate whether fixed assets are being financed with short- or long-term loans, as large amounts of required cash outflows during a short time can force a company into bankruptcy.
- *Nature of the client's operations.* Certain types of businesses are inherently riskier than others. For example, other things being equal, a start-up technology company dependent on one product is much more likely to go bankrupt than a diversified food manufacturer.
- *Extent of reliance upon technology and quality of support strategies.* If an entity using integrated electronic data interchange (EDI), electronic funds transfer (EFT), and automated shipping systems were to lose these systems and not have adequate backup and an effective disaster recovery plan, the entity would likely fail if it could not recover its systems within a short period of time. Support strategies (such as maintenance in the event of minor hardware or software problems) need to be of high quality so that relatively minor problems (such as failure in a communications processor) does not cause operational shutdown. The existence of an effective disaster recovery plan, adequate backup, and insurance are all important factors the auditor considers when assessing the viability of the entity as a going concern in relation to the entity's reliance on technology.
- *Competence of management.* Competent management is constantly alert for potential financial difficulties and modifies its operating methods to minimize the effects of short-run problems. Auditors must assess the ability of management as a part of the evaluation of the entity's ability to continue as a going concern.

The Auditor's Evaluation of Management's Integrity

As we discussed in Chapter 6, as a part of new client investigation and continuing client evaluation, if a client has questionable integrity, the auditor is likely to assess a lower acceptable audit risk. Companies with low integrity often conduct their business affairs in a manner that results in conflicts with their shareholders, regulators, and customers. A prior criminal conviction of key management personnel is an obvious example of questionable management integrity. Other examples of questionable integrity might include frequent disagreements with previous auditors, the Canada Revenue Agency, and the provincial securities commission. Frequent turnover of key financial and internal audit personnel and ongoing conflicts with labour unions and employees may also indicate integrity problems.

Audit Risk at Account Level

Although auditors often use the same acceptable audit risk for each major cycle and account (because the extent to which users' decisions rely upon financial statements is usually related to the overall financial statements, not just one or two accounts), in some cases a lower acceptable audit risk may be more appropriate for one account than others. For example, the auditor may decide upon a medium acceptable audit risk for the audit as a whole but might decide to reduce acceptable audit risk too low for inventory because it is used as collateral for a short-term loan.

Assessing Inherent Risk

The inclusion of inherent risk in the audit risk model is one of the most important concepts in auditing. It implies that auditors should attempt to predict where misstatements are most and least likely in the financial statement segments. This information affects the amount of evidence that the auditor needs to accumulate, the assignment of staff, and the review of audit documentation.

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Inherent risk for the overall financial statements (or overall financial reporting risk) is considered during the client acceptance and continuance decision and when assessing client business risk and fraud risk (which we discussed in Chapter 6). The audit risk model is used to consider inherent risk for the relevant assertions for material account balances, classes of transactions, and disclosures. The following factors, per CAS 315.28, suggest that there is significant risk of an assertion regarding a class of transactions, account balance, and/or disclosure:

CAS

1. Whether the risk is a risk of fraud;
2. Whether the risk is related to recent significant economic, accounting, or other developments;
3. The complexity of transactions;
4. Whether the risk involves significant transactions with related parties;
5. The degree of subjectivity in the measurement of financial information;
6. Whether the risk involves significant transactions that are outside the normal course of business for the entity, or that otherwise appear to be unusual.

concept check

C7-3 Using the audit risk model, holding all factors equal, what happens to detection risk if control risk goes down? Why?

C7-4 Why should the auditor consider client business risk when determining acceptable audit risk?

Table 7-5 describes major risk factors that the auditor considers when assessing inherent risk at the financial statement level and at the assertion/account level. In addition, the auditor also considers the results of previous audits, and whether this is a repeat or new audit engagement.

Inherent risk is inversely related to planned detection risk and directly related to substantive evidence. In addition to increasing audit evidence for a higher inherent risk in a given audit area, auditors commonly assign more experienced staff to that area and review the completed audit tests more thoroughly. For example, if inherent risk for inventory obsolescence is assessed to be extremely high, it makes sense for the PA firm to assign an experienced staff person to perform more extensive tests for inventory obsolescence and to more carefully review the audit results.

Assessing Control Risk

Control risk is a measure of the auditor's assessment of the likelihood that material misstatements will not be prevented or detected by the client's internal control. The auditor performs a control risk assessment at the overall financial statement level and of the relevant assertions, accounts, and disclosures. In order to perform this assessment, the auditor must have an understanding of controls at the organization. If the auditor determines controls to be effective, then the auditor may assess control risk as lower. For example, refer back to Table 7-4 (C), where control risk for payroll is low because internal controls are highly effective. However, in the case of inventory, the auditor has concluded that control risk is high because internal control is completely ineffective to prevent or detect misstatements.

concept check

C7-5 Describe the risk of material misstatement using parts of the audit risk model.

C7-6 How would the complexity of information systems affect inherent risk?

The audit risk model shows that there is a close relationship between inherent risk and control risk. For example, an inherent risk of 40 percent and a control risk of 60 percent affect planned detection risk and planned substantive evidence in the same way as an inherent risk of 60 percent and a control risk of 40 percent. In both cases, multiplying IR by CR results in a denominator of 24 percent. Recall that the combination of inherent risk and control risk is referred to in auditing standards as the risk of material misstatement. The auditor may make a combined assessment of the risk of material misstatement or the auditor can separately assess inherent risk and control risk. (Remember that inherent risk is the expectation of misstatements *before* considering the effect of internal control.)

As with inherent risk, the relationship between control risk and planned detection risk is inverse, whereas the relationship between control risk and substantive evidence is direct. If the auditor concludes that internal controls are effective, planned detection risk can be increased and substantive evidence therefore decreased. The auditor can increase planned detection risk when controls are effective because effective internal controls reduce the likelihood of misstatements in the financial statements.

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Table 7-5 Risk Factors—Impact on Overall Financial Reporting Risk (FRR) and Inherent Risk in Specific Accounts/Disclosures

Risk Factor	Potential Impact on Overall Financial Statements	Examples of Impact on Specific Accounts/Disclosures
Nature of client's business	Stable business decreases overall financial reporting risk (FRR)	Which accounts are at high risk will vary from business to business. However, accounts such as inventory, accounts receivable, and fixed assets are most likely impacted by high client risk (e.g., frequently changing technology increases risk of inventory obsolescence)
Results of previous audits	Past errors have a high probability of recurring, which increases overall FRR Few or no errors in prior years reduces overall FRR	Depends upon circumstance (e.g., errors in cutoff in prior years are likely to recur, which increases inherent risks of cutoff errors)
Initial versus repeat engagement	FRR is high for new engagements (auditor has limited knowledge)	Pervasive—impacts all accounts
Presence of related parties	Depends upon the circumstances	Depends upon the circumstance (e.g., the transactions between a parent and subsidiary company are not at arm's length, increasing inherent risks of valuation, existence, occurrence, and accuracy for inventory, cost of goods sold, revenue, sales) Inherent risk of completeness and understandability of disclosures increases
Presence of non routine or complex transactions	Isolated to specific accounts	The opening vignette featuring the InterContinental Hotel Group provided an example of a recent sale of its London Park Lane location Financial instruments are difficult to value and may be recorded incorrectly (higher inherent risks of accuracy and valuation) or not disclosed in an understandable way
Estimates or transactions requiring judgment	N/A—applies to specific accounts	If management is biased toward higher profits due to a management bonus, then estimates that require judgment (such as bad debt allowance or warranty provision for warranty payments) could result in higher inherent risk of valuation
Makeup of account population	N/A—applies to specific accounts	Which accounts are relevant would vary according to the particular circumstances Most auditors use a higher inherent risk for valuation of accounts receivable where most accounts are significantly overdue than where most accounts are current
Client motivation and biases	Depends upon circumstances	Which accounts are relevant will vary by the type of business and the relevant performance measures (e.g., a small business with a bias to lower taxes increases inherent risks associated with revenue completeness and expense occurrence)
Management integrity and other factors related to fraudulent financial reporting	Management dominated by one individual who lacks integrity increases overall FRR	Pervasive—impacts all accounts
Susceptibility of assets to misappropriation	Usually isolated to specific accounts	Organizations that handle cash or liquid inventory (such as jewellery) would have higher inherent risks of completeness or existence in cash or inventory
Nature of data processing systems	Customized programs increase overall FRR (more potential for programming errors) while packaged software decreases overall FRR Complex configurations are harder to understand and manage, increasing the likelihood of out-of-date programming or data loss	Pervasive risk—impacts all accounts
Extent of use of data communications	Use of the internet increases risks associated with data compromise or data loss, which increases overall FRR	Cash would have high inherent risk, as would use of electronic funds transfer (such as EDI, online banking)

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Potential Judgment Traps in Assessing Risk

While assessing risk requires considerable professional judgment and is meant to help the auditor develop an audit strategy that is unique to the particular circumstances of the client, there is still the possibility that auditors can fall into judgment traps.

For instance, the inherent risk factor of few or no errors in the past can easily lead to the conclusion that inherent risk is low for a particular account. However, as we highlighted in Chapter 4, when auditors generalize from past experiences with similar businesses, other audit engagements, or even the client (such as few past adjustments), they fall into the judgment trap of the availability bias. This may result in a too low assessment of risk.

Another illustration of this judgment trap is auditing of cash. Cash is typically considered to have a low risk of material misstatement because it is generally not a complex account and most companies tend to have good controls for cash. However, some recent high profile frauds—such as the Italian dairy company, Parmalat—have involved cash. Over a 10-year period, Parmalat grew its fictitious cash account to almost $5 billion in order to sell public debt and qualify for commercial lines of credit. As one former auditor noted: "What is the one line in an audited balance sheet that no one questions? Answer: the cash and other short-term assets line. And that is precisely where this fraud was directed." An important lesson from this statement is to avoid relying too much on generalizations when performing a risk assessment. Further, the auditor should be diligent and skeptical when assessing risk of material misstatement—particularly when considering the risks associated with management biases and incentives.

Sources: Confirmation.com. 2012. *Confirmation fraud*: How auditors can overcome confirmation fraud challenges," available at **http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/tac072612_whitepaper.pdf**. "Parma Splat: What are the lessons from the scandal at Europe's largest dairy-products group?" *The Economist*, January 15, 2004.

An important point to highlight regarding the auditors' assessment of control risk is that it represents both (1) an assessment of whether a client's internal control is effective for preventing or detecting misstatements **and** (2) the auditor's intention to rely on internal controls and assign a value to control risk as part of the audit plan. If the auditor sets control risk to maximum(in numerical terms, assigns 100 percent control risk factor), this means "no reliance" will be placed upon controls. If the auditor assesses control risk as low, as in the case of payroll in Table 7-4, then the auditor plans to rely upon internal controls and can perform less substantive testing.

If auditors plan to rely upon controls (use a control risk of less than maximum or 100 percent), they must do three things: obtain an understanding of the design of the client's internal control, evaluate the design effectiveness of those controls based on the understanding, and test internal controls for operational effectiveness. Understanding internal controls is required for all audits. Assessing design effectiveness and tests of controls are required when the auditor chooses to set control risk below maximum and to place reliance on the controls. Internal controls and control risk are discussed further in Chapter 9.

Determining Detection Risk

LO 7 Use professional judgment and apply the audit risk model to develop an audit strategy.

Figure 7-4 summarizes the factors that determine each of the risks in the audit risk model—the effect of the acceptable audit risk, inherent risk, and control risk—on the determination of planned detection risk, and the relationship of all four risks to planned audit evidence. Auditors respond to the risks by changing detection risk. The auditor can change detection risk by adjusting the nature, timing, and extent of substantive audit procedures to ensure that the auditor does not underaudit. As mentioned earlier, in addition to modifying audit evidence, the auditor manages detection risk through adjusting the overall conduct of the engagement—such as by (1) assigning more experienced staff or specialists to the engagement; (2) instructing staff to use a heightened level of professional skepticism (if applicable); and (3) ensuring close supervision and review.

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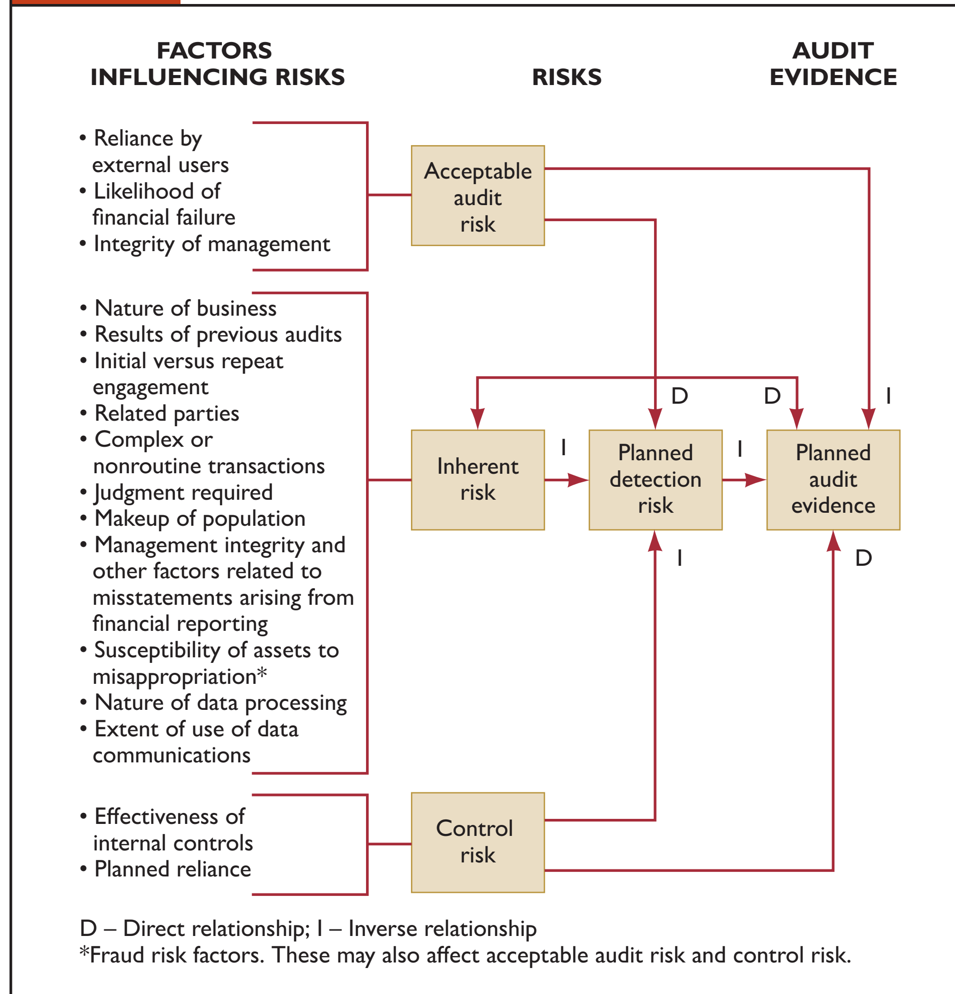
Figure 7-4 Relationship of Factors Influencing Risks to Risks, and Risks to Planned Evidence



concept check

C7-7 How can general rule of thumbs and past experience with the client create judgment traps for auditors' risk assessments? Provide an example for inherent risk and control risk assessments.

Because control risk and inherent risk may vary from cycle to cycle, from account to account, and by assertions, planned detection risk will also vary. As the circumstances of each engagement differ, the extent and nature of evidence will depend upon the unique circumstances. For example, inventory might require extensive testing on an engagement because of deficient internal controls and the auditor's concerns about obsolescence resulting from technological changes in the industry. On the same engagement, accounts receivable may require little testing because of effective internal controls, fast collection of receivables, excellent relationships between the client and customers, and good audit results in previous years. Similarly, for a given audit of inventory, an auditor may assess a higher inherent risk of a realizable value misstatement because of the higher potential for obsolescence, but a low inherent risk of a classification misstatement because there is only purchased inventory.

Table 7-6 provides different variations of risks to demonstrate the relationship with substantive evidence. For example, in situation 1, the auditor has decided on a high acceptable audit risk for account or assertion. The auditor has concluded that a low risk of misstatement in the financial statements exists and that internal controls are effective. Therefore, a high planned detection risk is appropriate. As a result, a low level of evidence is needed. Situation 3 is at the opposite extreme. If both inherent and control risks are high and the auditor wants a low acceptable audit risk, considerable evidence is required. The other three situations fall between these two extremes.

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Table 7-6	Relationships of Audit Risk Model Components to Evidence				
Situation	Acceptable Audit Risk	Inherent Risk	Control Risk	Planned Detection Risk	Amount of Evidence Required
1	High	Low	Low	High	Low
2	Low	Low	Low	Medium	Medium
3	Low	High	High	Low	High
4	Medium	Medium	Medium	Medium	Medium
5	High	Low	Medium	Medium	Medium

The Role of Materiality and the Audit Risk Model in Planning Substantive Evidence

LO 8 Understand how audit risk and materiality are related to audit evidence and the audit process.

In applying the audit risk model, auditors are concerned about both overauditing and underauditing. Most auditors are more concerned about the latter, as underauditing exposes the PA firm to legal liability and loss of professional reputation. Because of the concern to avoid underauditing, auditors typically assess risks conservatively. For example, an auditor might not assess either control risk or inherent risk below 0.5 even when the likelihood of misstatement is low. In these audits, a low risk might be 0.5, medium 0.8, and high 1.0, if the risks are quantified.

Auditors develop various types of decision aids to help link judgments affecting audit evidence with the appropriate evidence to accumulate. One such worksheet is included in Figure 7-5 for the audit of accounts receivable for Hillsburg Hardware Limited. The five balance-related assertions introduced in Chapter 5 are included in the top columns. The following decisions were made in the audit of Hillsburg Hardware Limited:

- *Performance materiality.* Overall materiality is $496 000(10 percent of earnings before income taxes and extraordinary items of $4,961 000) and performance materiality is $441 000 (see Table 7-2).
- *Acceptable audit risk.* Fran assessed audit risk as medium because of the good financial condition of the company, high management integrity, and relatively few public shareholders (about 1000).
- *Inherent risk.* Fran assessed inherent risk as medium for existence because of concerns over revenue recognition. Fran also assessed inherent risk as medium for valuation. In past years, there have been audit adjustments to the allowance for uncollectable accounts because it was found to be understated. Inherent risk is low for the remaining three balance-related audit objectives.

Planned detection risk would be approximately the same for each balance-related audit objective (assertion) in the audit of accounts receivable for Hillsburg Hardware Limited if the only three factors the auditor needed to consider were audit risk, inherent risk, and performance materiality. The evidence planning spreadsheet shows that other factors must be considered before making the final evidence decisions. Control risk for the different transaction types is examined separately, as is the impact of analytical procedures. These are studied in subsequent chapters and will be integrated into the evidence planning spreadsheet at that time.

The concepts of materiality and risk are closely related and inseparable. Risk is a measure of uncertainty, whereas materiality is a measure of magnitude or size. Taken together, they measure the uncertainty of amounts of a given magnitude. For example, the statement that "the auditor plans to accumulate evidence such that there is only a 5 percent risk (acceptable audit risk) of failing to uncover misstatements exceeding performance materiality of $441 000" is a precise and meaningful statement. If the statement eliminates either the risk or materiality portion, it is meaningless. A 5 percent risk without a specific materiality measure could imply that a $100 or a

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Figure 7-5 Evidence Planning Spreadsheet to Decide Tests of Details of Balances for Hillsburg Hardware Limited—Accounts Receivable

	Existence	Rights and Obligations	Completeness	Valuation	Allocation
Audit risk	medium	medium	medium	medium	medium
Inherent risk	medium	low	low	medium	low
Control risk – Sales					
Control risk – Cash receipts					
Control risk – Additional controls					
Analytical procedures					
Planned detection risk for tests of details of balances					
Planned audit evidence for tests of details of balances					

Materiality: $496 000
Performance Materiality: $441 000

$1 million misstatement is acceptable. A $441 000 overstatement without a specific risk could imply that a 1 percent or 80 percent risk is acceptable. In summary, performance materiality does not affect the four risks in the audit risk model and the risks do not affect performance materiality, but together they determine planned evidence.

Summary

1. *Explain how the concept of materiality applies to the audit.* Materiality is a key concept in auditing. It represents an omission or misstatement (in other words an "error") that could influence the economic decisions of financial statement users. Materiality depends on the size of the error judged in the particular circumstances. Thus, materiality provides a threshold or cut-off point rather than being a primary qualitative characteristic that information must have if it is to be useful.

2. *Explain the role of professional judgment in determining overall (or planning) and performance materiality.* When determining materiality, auditors consider both quantitative and qualitative factors. Planning materiality represents materiality for the financial statements as a whole. Considerable professional judgment is required to determine overall materiality—the auditor takes into consideration the users and what performance measures they focus on. Performance materiality is planning

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materiality adjusted for anticipated adjustments and is what the auditor uses to evaluate the results of audit tests. Firms typically have guidelines which advise auditors to use 50 percent. At the completion of the audit, overall materiality is used to assess whether or not the financial statements are materially misstated.

3. *Explain how materiality is applied to evaluate audit findings.* Materiality is used to assess the impact that potential errors might have on users of the financial statements. The auditor needs to conduct the audit such that the statements are free of material errors to a specified assurance level. Since materiality affects sample size, as materiality decreases, so does the need for increased audit testing.

4. *What is risk in auditing?* Assessing and managing risk is key to audit quality. The auditor is constantly making risk assessments throughout the audit—from the client acceptance and continuance stage to the completion of the audit. The overall goal is to determine the risk of material misstatement and to manage that risk so that the auditor does not issue an inappropriate audit opinion.

5. *What are the audit risk model, its components, and its relevance to audit planning?* The components are audit risk, inherent risk, control risk, and (planned) detection risk. The audit risk model is a planning tool used by auditors to aid in the determination of detection risk (based upon the assessment of acceptable audit risk, inherent risk, and control risk). Assessments of audit risk, inherent risk, and control risk are completed to the individual cycle, account, and assertion level. Auditors respond to the risks by changing detection risk. The auditor can change detection risk by adjusting the nature, timing, and extent of substantive audit procedures to ensure that the auditor does not underaudit.

6. *What are the factors that determine acceptable audit risk?* To assess acceptable audit risk, the auditor will consider factors related to engagement risk, the risk that the auditor or audit firm will suffer harm after the audit is finished, even if the audit report is correct. Three key factors that affect audit risk are the degree to which external users rely on the statements, the likelihood that a client will have financial difficulties after the audit report is issued, and the integrity of management.

7. *What is the role of professional judgment and the audit risk model in the development of an audit strategy?* The risk assessments require considerable professional judgment as well as the decisions related to detection risk—determining what is sufficient and appropriate evidence. Although audit standards require auditors to make risk assessments, they are not prescriptive.

8. *How are audit risk and materiality related to audit evidence and the audit process?* Materiality does not affect the four risks in the audit risk model and the risks do not affect performance materiality, but together they determine planned evidence. Audit risk is directly related to detection risk, which the auditor uses to determine the level of substantive testing. By decreasing or increasing materiality, the auditor increases or decreases the level of testing, and materiality is the benchmark used to determine whether the results of substantive testing are acceptable.

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Review Questions

7-1 5 Define *audit risk model* and explain each term in the model. Also describe which two factors of the model, when combined, reflect the risk of material misstatements.

7-2 5 Explain the causes of an increased or decreased planned detection risk.

7-3 5 6 When does the auditor assess client business risk? Why?

7-4 4 5 How does engagement risk affect the audit process?

7-5 5 6 Explain why inherent risk is estimated for specific accounts rather than for the overall audit. What is the effect on the amount of evidence the auditor must accumulate when inherent risk is increased from medium to high for a segment?

7-6 4, 5 7 Explain the relationship between audit risk and the legal liability of auditors.

7-7 5 6 7 State the categories of circumstances that affect audit risk, and list the factors that the auditor can use to indicate the degree to which each category exists.

7-8 5 6 Explain the effect of extensive misstatements found in the prior year's audit on inherent risk, planned detection risk, and planned audit evidence.

7-9 7 What is meant by *acceptable audit risk*? What is its relevance to evidence accumulation?

7-10 1 2 Define *materiality* as it is used in accounting and auditing. What is the relationship between materiality and the phrase "obtain reasonable assurance" used in the auditor's report?

7-11 1 2 3 Explain why materiality is important but difficult to apply in practice.

7-12 1 2 3 What is meant by *planning materiality*? Identify the most important factors affecting its development.

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7-13 1 2 Assume Rosanne Madden, a CPA, is using 5 percent of net income before taxes as her major guideline for evaluating materiality. What qualitative factors should she also consider in deciding whether misstatements may be material?

7-14 1 2 Assume materiality for the financial statements as a whole is $100 000, and performance materiality for accounts receivable is set at $40 000. If the auditor finds one receivable that is overstated by $55 000, what should the auditor do?

7-15 3 Differentiate between identified misstatements, likely or potential misstatements, and further possible misstatements. Explain why all three are important.

7-16 5 How would the conduct of an audit of a medium-sized company be affected by the company's being a small part of a large conglomerate as compared with its being a separate entity?

7-17 2 What is meant by using benchmarks for setting a preliminary judgment about materiality? How will those benchmarks differ for the audit of a manufacturing company and a government unit such as a school district?

7-18 6 Auditors have not been successful in measuring the components of the audit risk model. How is it possible to use the model in a meaningful way without a precise way of measuring the risk?

7-19 8 Explain how audit risk and materiality are related and why they need to be considered together in planning an audit.

Multiple Choice Questions

7-20 1 2 3 In considering overall materiality for planning purposes, an auditor believes that misstatements aggregating $10 000 will have a material effect on an entity's income statement, but that misstatements will have to aggregate $20 000 to materially affect the balance sheet. Ordinarily, it is appropriate to design audit procedures that are expected to detect misstatements that aggregate

(1) $10 000.
(2) $15 000.
(3) $20 000.
(4) $30 000.

7-21 5 Some account balances, such as those for pensions and leases, are the result of complex calculations. The susceptibility to material misstatements in these types of accounts is defined as

(1) audit risk.
(2) detection risk.
(3) inherent risk.
(4) sampling risk.

7-22 3 A client decides not to record an auditor's proposed adjustments that collectively are not material and wants the auditor to issue the report based on the unadjusted numbers. Which of the following statements is correct regarding the financial statement presentation?

(1) The financial statements are free from material misstatement, and no disclosure is required in the notes to the financial statements.
(2) The financial statements do not conform with generally accepted accounting principles (GAAP).
(3) The financial statements contain unadjusted misstatements that should result in a qualified opinion.
(4) The financial statements are free from material misstatement, but disclosure of the proposed adjustment is required in the notes to the financial statements.

7-23 7 Based on evidence gathered and evaluated, an auditor decides to increase the assessed level of control risk from that originally planned. To achieve an overall audit risk level that is substantially the same as the planned audit risk level, the auditor could

(1) decrease detection risk.
(2) increase materiality levels.
(3) decrease substantive testing.
(4) increase inherent risk.

7-24 5 Below are independent risk factors. Identify which of the following audit risk model components (1–Acceptable audit risk, 2–Control risk, 3–Inherent risk, 4–Planned detection risk) relates most directly to each of the listed risk factors:

Independent Risk Factors	Audit Risk Model Component
The client lacks sufficient working capital to continue operations.	
The client fails to detect employee theft of inventory from the warehouse because there are no restrictions on warehouse access and the client does not reconcile inventory on hand to recorded amounts on a timely basis.	
The company is publicly traded.	
The auditor has identified numerous material misstatements during prior year audit engagements.	
The assigned staff on the audit engagement lacks the necessary skills to identify actual errors in an account balance when examining audit evidence accumulated.	
The client is one of the industry's largest based on its size and market share.	
The client engages in several material transactions with entities owned by family members of several of the client's senior executives.	
The allowance for doubtful accounts is based on significant assumptions made by management.	
The audit program omits several necessary audit procedures.	
The client fails to reconcile bank accounts to recorded cash balances.	

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Discussion Questions and Problems

7-25 5 You are the proprietor of a PA firm with a growing audit practice. You have accepted the audit of T-Division, one of six separate Canadian divisions of a large, private multinational corporation. Each division operates as a separate entity. The manager of each division receives a salary plus a bonus based on the net profit of the division. In each division, the manager has the authority over all other employees for buying materials, production issues, accounting, and personnel matters.

James has reached the level of manager of T-Division by working very hard and demanding high production levels of his staff. James has advised you that he wants to see all questions you have about accounting issues and he assures you that he will personally make sure that they are taken care of, without any more effort on your behalf. James explained that he has managed three other divisions in the past for this company, and each one received a "clean audit report," which helped his career. He wants to ensure that T-Division also gets a "clean" audit report and to keep the auditor's work at a minimum.

REQUIRED

a. Determine whether you would set the overall audit risk as high, medium, or low for your audit of T-Division. Justify your response.

b. Identify and briefly explain two other items of information about T-Division, besides what you already know, that would be important for you to consider in determining the proper level of audit risk.

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7-26 5 8 You are the auditor in charge of the audit of the municipality of Sackville, New Brunswick. The municipality has a budget of about $65 million and has had a balanced budget for the last three years. There are about 10 people in the accounting office and the rest of the employees are operational, dealing with supervision of roadwork, garbage collection, and similar matters. Many services are outsourced, minimizing the need for employees. The municipality has a chief executive officer and a controller and reports to the council of elected representatives.

REQUIRED

For each of the following situations, state a preliminary conclusion for overall audit risk, inherent risk, control risk, and detection risk. Justify your conclusions. State any assumptions that are necessary for you to reach your conclusions.

1. This is the first year that you have been auditing Sackville. There has been extensive turnover after the recent election. Costs are out of control, and it looks like it may be necessary to raise realty taxes by as much as 15 percent.
2. For four years now, you have been auditing Sackville. The employees are experienced, and any control recommendations that you have suggested have been discussed and, where feasible, implemented. There is a tiny budget surplus this year, and it looks as if a balanced budget is in sight again for next year.
3. Sackville is being hit by bad press. It seems that one of the purchasing agents set up a fictitious company and was billing the municipality for goods that had not been received. To make it worse, the purchasing agent's wife was the assistant accountant. The office of the provincial auditor general has sent a letter to the controller of Sackville stating that the municipality has been selected for audit by the provincial auditor general's office based on a random sample, and that the provincial auditors will be arriving within two weeks of the completion of your audit.

7-27 8 Some countries, such as the United Kingdom, require that the auditor's report include a statement of materiality level and risk of material misstatement. Some accountants suggest that the audit risk that the auditor used in conducting the audit should also be disclosed.

REQUIRED

a. The proponents of such disclosure believe that the information would be useful to users of the financial statements being reported on. Explain fully why you think they have this view.

b. Some accountants oppose such disclosure. Explain why you think they are not in favour of it.

c. What is your position on the issue?

7-28 2 Statements of earnings and financial position for Prairie Stores Corporation are shown.

REQUIRED

a. Use professional judgment in determining overall materiality based on revenue, net income before taxes, total assets, and shareholders' equity. Your conclusions should be stated in terms of percentages and dollars.

b. Assume you complete the audit and conclude that financial statement misstatements exceed materiality. What should you do?

c. As discussed in part (b), likely net earnings from continuing operations before income taxes were used as a base for materiality when completing the audit. Discuss why most auditors use before-tax net earnings instead of after-tax net earnings when calculating materiality based on the income statement.

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Statement of Earnings
Prairie Stores Corporation

	For the 52 Weeks Ended		
	March 30, 2014	April 1, 2013	April 1, 2012
Revenue			
Net sales	$8 351 149	$6 601 255	$5 959 587
Other income	59 675	43 186	52 418
	8 410 824	**6 644 441**	**6 012 005**
Costs and expenses			
Cost of sales	5 197 375	4 005 548	3 675 369
Marketing, general, and administrative expenses	2 590 080	2 119 590	1 828 169
Provision for loss on restructured operations	64 100	–	–
Interest expense	141 62	46 737	38 546
	7 993 217	**6 171 875**	**5 542 084**
Earnings from continuing operations before income taxes	417 607	472 566	469 921
Income taxes	196 700	217 200	214 100
Earnings from continuing operations	220 970	255 366	255 821
Provision for loss on discontinued operations, net of income taxes	20 700	–	–
Net earnings	**$ 200 207**	**$ 255 366**	**$ 255 821**

Statement of Financial Position
Prairie Stores Corporation

Assets		March 30, 2014		April 1, 2013
Current assets				
Cash		$ 39 683		$ 37 566
Temporary investments (at cost, which approximates market)		123 421		271 639
Receivables, less allowances of $16 808 in 2014 and $17 616 in 2013		899 752		759 001
Inventories				
Finished product	680 974		550 407	
Raw materials and supplies	443 175		353 795	
		1 124 149		904 202
Deferred income tax benefits		9 633		10 468
Prepaid expenses		57 468		35 911
Total current assets		2 254 106		2 018 787
Land, buildings, equipment at cost, less accumulated amortization		1 393 902		1 004 455
Investments in affiliated companies and sundry assets		112 938		83 455
Goodwill and other intangible assets		99 791		23 145
Total assets		**$3 860 737**		**$3 129 842**
Liabilities and Shareholders' Equity				
Current liabilities				
Notes payable		$ 280 238		$ 113 411
Current portion of long-term debt		64 594		12 336
Accounts and drafts payable		359 511		380 395
Accrued salaries, wages, and vacations		112 200		63 557
Accrued income taxes		76 497		89 151
Other accrued liabilities including goods and services tax		321 871		269 672
Current liabilities		1 214 893		928 522
Long-term debt		730 987		390 687
Other noncurrent liabilities		146 687		80 586
Accrued income tax liability		142 344		119 715
Total liabilities		2 234 911		1 519 510
Shareholders' equity				
Common stock issued, 51 017 shares in 2014 and 50 992 in 2013		200 195		199 576
Retained earnings		1 425 631		1 410 756
Total shareholders' equity		1 625 826		1 610 332
Total liabilities and shareholders' equity		**$3 860 737**		**$3 129 842**

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7-29 3 You are evaluating audit results for current assets in the audit of Quicky Plumbing Co. You set the specific performance materiality for current assets at $12 500 for overstatements and at $20 000 for understatements. The estimated and actual misstatement ranges are shown below.

REQUIRED

a. Justify a lower materiality for overstatements than understatements in this situation.

b. Explain why the totals of the tolerable misstatements exceed materiality for both understatements and overstatements.

c. Explain how it is possible that three of the estimates of total misstatement have both an overstatement and an understatement.

d. Assume that you are not concerned whether the estimate of misstatement exceeds tolerable misstatement for individual accounts if the total estimate is less than materiality.

1. Given the audit results, should you be more concerned about the existence of material overstatements or understatements at this point in the audit of Quicky Plumbing Co.?
2. Which account or accounts will you be most concerned about in (1)? Explain.

e. Assume that the estimate of total overstatement amount for each account is less than performance materiality, but that the total overstatement estimate exceeds overall materiality.

1. Explain why this would occur.
2. Explain what the auditor should do.

	Tolerable Misstatement		Estimate of Total Misstatement	
Account	Overstatements	Understatements	Overstatements	Understatements
Cash	$ 2 000	$ 3 000	$ 2 000	$ 0
Accounts receivable	12 000	18 000	4 000	19 000
Inventory	8 000	14 000	3 000	10 000
Prepaid expenses	3 000	5 000	2 000	1 000
Total	$25 000	$40 000	$11 000	$30 000

7-30 3 8 Following are six situations that involve the audit risk model as it is used for planning audit evidence requirements in the audit of inventory.

REQUIRED

a. Explain what *low*, *medium*, and *high* mean for each of the four risks and planned evidence.

b. Fill in the blanks for planned detection risk and planned evidence using the terms *low*, *medium*, and *high*.

c. Using your knowledge of the relationships among the foregoing factors, state the effect on planned evidence (increase or decrease) of changing each of the following five factors, while the other three remain constant:

1. An increase in acceptable audit risk.
2. An increase in control risk.
3. An increase in planned detection risk.
4. An increase in inherent risk.
5. An increase in inherent risk and a decrease in control risk of the same amount.

	Situation					
Risk	1	2	3	4	5	6
Acceptable audit risk	High	High	Low	Low	High	Medium
Inherent risk	Low	High	High	Low	Medium	Medium
Control risk	Low	Low	High	High	Medium	Medium
Planned detection risk	—	—	—	—	—	—
Planned evidence	—	—	—	—	—	—

7-31 5 Bohrer, CPA, is considering the following factors in assessing audit risk at the financial statement level in planning the audit of Waste Remediation Services (WRS), Inc.'s financial statements for the year ended December 31, 2014. WRS is a privately held company that contracts with municipal governments to close landfills. Audit risk at the financial statement level is influenced by the risk of material misstatements, which may be indicated by factors related to the entity, management, and the industry environment.

1. This was the first year WRS operated at a profit since 2009 because the municipalities received increased federal and provincial funding for environmental purposes.
2. WRS's board of directors is controlled by Tucker, the majority shareholder, who also acts as the chief executive officer.

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3. The internal auditor reports to the controller and the controller reports to Tucker.
4. The accounting department has experienced a high rate of turnover of key personnel.
5. WRS's bank has a loan officer who meets regularly with WRS's CEO and controller to monitor WRS's financial performance.
6. WRS's employees are paid biweekly.
7. Bohrer has audited WRS for five years.
8. During 2014, WRS changed its method of preparing its financial statements from the cash basis to generally accepted accounting principles.
9. During 2014, WRS sold one half of its controlling interest in Sanitation Equipment Leasing Co. (SEL). WRS retained a significant interest in SEL.
10. During 2014, litigation filed against WRS in 2004 alleging that WRS discharged pollutants into provincial waterways was dropped by the province. Loss contingency disclosures that WRS included in prior years' financial statements are being removed for the 2013 financial statements.
11. During December 2014, WRS signed a contract to lease disposal equipment from an entity owned by Tucker's parents. This related party transaction is not disclosed in WRS's notes to its 2014 financial statements.
12. During December 2014, WRS increased its casualty insurance coverage on several pieces of sophisticated machinery from historical cost to replacement cost.
13. WRS recorded a substantial increase in revenue in the fourth quarter of 2014. Inquiries indicated that WRS initiated a new policy and guaranteed several municipalities that it would refund provincial and federal funding paid to WRS on behalf of the municipality if it failed a federal or provincial site inspection in 2015.
14. An initial public offering of WRS stock is planned in 2015.

REQUIRED

For each of the 14 factors listed above, indicate whether the item would likely increase audit risk, decrease audit risk, or have no effect on audit risk.*

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7-32 5 6 Joanne Whitehead is planning the audit of a newly obtained client, Henderson Energy Corporation, for the year ended December 31, 2014. Henderson Energy is regulated by the provincial utility commission and, because it is a publicly traded company, the audited financial statements must be filed with the Ontario Securities Commission(OSC).

Henderson Energy is considerably more profitable than many of its competitors, largely due to its extensive investment in information technologies used in its energy distribution and other key business processes. Recent growth into rural markets, however, has placed some strain on 2014 operations. Additionally, Henderson Energy expanded its investments into speculative markets and is also making greater use of derivative and hedging transactions to mitigate some of its investment risks. Because of the complexities of the underlying accounting associated with these activities, Henderson Energy added several highly experienced accountants to its financial reporting team. Internal audit, which has direct reporting responsibility to the audit committee, is also actively involved in reviewing key accounting assumptions and estimates on a quarterly basis.

Whitehead's discussions with the predecessor auditor revealed that the client has experienced some difficulty in correctly tracking existing property, plant, and equipment items. This largely involves equipment located at its multiple energy production facilities. During the recent year, Henderson acquired a regional electric company, which expanded the number of energy production facilities.

Whitehead plans to staff the audit engagement with several members of the firm who have experience in auditing energy and public companies. The extent of partner review of key accounts will be extensive.

REQUIRED

Based on the above information, identify factors that affect the risk of material misstatement in the December 31, 2014, financial statements of Henderson Energy. Indicate whether the factor increases or decreases the risk of material misstatement. Also, identify which audit risk model component is affected by the factor. Use the format below:

Factor	Effect on the Risk of Material Misstatement	Audit Risk Model Component
Henderson is a new client	Increases	Inherent risk

Professional Judgment Problems and Cases

7-33 2 5 6 7 You are the senior auditor in charge of the December 31, 2014, year-end audit for Cleo Patrick Cosmetics Inc. (CPCI). CPCI is a large, privately held Canadian company that was founded in 1995 by one of Canada's best known hair stylists, Cleo Patrick. Cleo Patrick is a famous celebrity hair stylist who has appeared on a variety of television shows such as *Entertainment Tonight*, and has been the chief stylist for the Oscars and Emmys. The company includes: (1) a small chain of 10 upscale salons situated in major cities in Canada and the United States; and (2) its well-known signature line of professional hair products that are available at select drug stores and retail chains. The core of its business is its signature hair

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products line, *Cleo Patrick True Professional*. The *True Professional* line represents 85 percent of the company's total revenue.

During the planning phase of the audit, you performed various planning activities and met with CPCI's management team. You obtained the following information.

1. Your firm has audited CPCI since 2001, when Cleo sold 25 percent of her company to a group of private investors. The investors receive quarterly dividends that are calculated based upon a combination of sales and net income. The investors, all experienced businesspeople, serve as Cleo's board of directors and give her advice on the strategic direction of the company.
2. Your firm has not had any major disputes with CPCI management over accounting issues; however, last year it recommended that CPCI improve the organization of its accounting department—which is understaffed.
3. High-priced mass-market hair products represent a highly competitive supersaturated market. Large multinationals make up about 70 percent of the market, with niche companies such as CPCI making up the remaining 30 percent. Management does not consider multinationals to be a threat. "Unlike our competitors, we are a true salon heritage brand backed by an active celebrity stylist."
4. From your review of the 2013 audited financial statements and the 2014 third quarter unaudited financial statements, you noted the following information:

	Nine Months Ended Sept. 30, 2014 (unaudited) (thousands of dollars)	Year Ended Dec. 31, 2013 (audited) (thousands of dollars)
Sales	$350 000	$ 450 000
Net income	1 000	1 500
Cash	25 000	30 000
Accounts receivable	25 000	25 000
Inventory	45 000	40 000
Property, plant, and equipment	165 000	160 000
Total assets	285 000	280 000
Current liabilities	45 000	40 000

5. Cleo plans to expand into Europe and is negotiating contracts with drug stores in the United Kingdom and Germany. In order to fund this expansion, CPCI's bank has agreed to increase CPCI's operating line of credit. As part of the agreement, CPCI is required to maintain a minimum quick ratio of 1:2 and a positive net income. In addition, CPCI is required to provide the bank with audited financial statements.
6. Your firm has an employee who reads and saves articles about issues that may affect key clients. You read an article that says that two of CPCI's top-selling products recently made "The Dirty Dozen" list. The list, developed by an environmental research foundation, highlights those cosmetic products that have toxic chemicals (some of which are cancer-causing). CPCI claims that all its products are safe and meet the provincial and federal health and safety guidelines. You discuss the issue with CPCI management and find out that it is working on reformulating both products, which should be ready in 2015. CPCI is offering large rebates to retailers in order to encourage sales of its older products. The two "dirty" products currently make up about 20 percent of CPCI's current inventory of $45 million.
7. William Kirk was hired recently as the chief operating officer (COO) to provide closer oversight of the company. Due to all the new products and expansions, Cleo does not have time to spend monitoring the daily operations. Kirk is attempting to bring in a greater emphasis on controls around financial reporting and monitoring(as recommended by your firm in the past). Kirk started in June 2014 and one of the first things he did was to replace the chief financial officer (CFO), who was not very organized and tended to delay handling problems. Kirk also implemented a new bonus plan based upon sales growth and profitability targets. He told you he thinks it is working out really well and sales are growing. However, Kirk has not had a chance to implement all his plans—such as hiring additional accounting staff and performing a formal assessment of the quality of internal controls.
8. In early 2014, CPCI launched two new collections, *Ultimate Moisture* and *Moisture Gloss*. These two products placed an extensive strain on the company's cash flow. CPCI had spent $15 million in product development and $10 million on advertising. However, sales were much lower than predicted. Management had anticipated 2014 sales for the two products to be $9 million to $10 million. However, as of October 2014, actual sales were only $2 million. When you inquired about the low sales, the new CFO explained that the buyer had purchased inappropriate raw materials. This was not discovered during the inspection process when the materials were received. As a result, the finished product did not meet quality standards and was destroyed, and the new product arrived in stores much later than planned. The CFO stated that the salespeople were working really hard at trying to get product demand back on track by year-end and were offering new contracts, with very favourable terms, to potential customers.

REQUIRED

a. Based on the above information, identify factors that affect the risk of material misstatement in the December 31, 2014, financial statements of CPCI. Indicate whether the factor increases or decreases the risk of material misstatement. Also, identify which audit risk model component is affected by the factor.

Factor	Effect on the Risk of Material Misstatement (Increase/Decrease)	Audit Risk Model Component

b. Make an acceptable audit risk decision for the current year as high, medium, or low, and support your answer.
c. Make a preliminary judgment of overall materiality for the CPCI audit, show your calculations, and provide your rationale for choice of benchmark and percentage.
d. What would you set performance materiality to be? Explain why.

7-34 3 5 7 Pamela Albright is the manager of the audit of Stanton Enterprises, a public company that manufactures formed steel subassemblies for other manufacturers. Albright is planning the 2013 audit and is considering an appropriate amount for overall financial statement materiality, what performance materiality should be set for the financial statement accounts, and the appropriate inherent risks. Summary financial statement information is shown in Figure 7-6. Additional relevant planning information is summarized next.

1. Stanton has been a client for four years and Albright's firm has always had a good relationship with the company. Management and the accounting people have always been cooperative, honest, and positive about the audit and financial reporting. No material misstatements were found in the prior year's audit. Albright's firm has monitored the relationship carefully, because when the audit was obtained, Leonard Stanton, the CEO, had the reputation of being a "high-flyer" and had been through bankruptcy at an earlier time in his career.
2. Stanton runs the company in an autocratic way, primarily because of a somewhat controlling personality. He believes that it is his job to make all the tough decisions. He delegates responsibility to others but is not always willing to delegate a commensurate amount of authority.

Figure 7-6 Stanton Enterprises Summary Financial Statements

Stanton Enterprises Summary Financial Statements

	Balance Sheet	
	Preliminary Dec. 31, 2013	Audited Dec. 31, 2012
Cash	$ 243 689	$ 133 981
Trade accounts receivable	3544 009	2 224 921
Allowance for uncollectible accounts	(120 000)	(215 000)
Inventories	4520 902	3 888 400
Prepaid expenses	29 500	24 700
Total current assets	8 218 100	6 057 002
Property, plant, and equipment:		
At cost	12 945 255	9 922 534
Less accumulated depreciation	(4 382 990)	(3 775 911)
Total prop., plant, and equipment	8 562 265	6 146 623
Goodwill	1 200 000	345 000
Total assets	**$17 980 365**	**$ 12 548 625**
Accounts payable	$ 2 141 552	$ 2 526 789
Bank loan payable	150 000	—
Accrued liabilities	723 600	598 020
Federal income taxes payable	1 200 000	1 759 000
Current portion of long-term debt	240 000	240 000
Total current liabilities	4 455 152	5 123 809
Long-term debt	960 000	1 200 000
Sholders' equity:		
Common shares	1 250 000	1 000 000
Additional paid-in capital	2 469 921	1 333 801
Retained earnings	8 845 292	3 891 015
Total shareholders' equity	12 565 213	6 224 816
Total liabilities and shareholders' equity	**$17 980 365**	**$12 548 625**

Combined Statement of Income and Retained Earnings

	Preliminary Dec. 31, 2013	Audited Dec. 31, 2012
Sales	$43 994 931	$32 258 015
Cost of goods sold	24 197 212	19 032 229
Gross profit	19 797 719	13 225 786
Selling, general, and administrative expenses	10 592 221	8 900 432
Pension cost	1 117 845	865 030
Interest expense	83 376	104 220
Total operating expenses	11 793 442	9 869 682
Income before taxes	8 004 277	3 356 104
Income tax expense	1 800 000	1 141 000
Net income	6 204 277	2 215 104
Beginning retained earnings	3 891 015	2 675 911
	10 095 292	4 891 015
Dividends declared	(1 250 000)	(1 000 000)
Ending retained earnings	**$ 8 845 292**	**$ 3 891 015**

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3. The industry in which Stanton participates has been in a favourable cycle for the past few years, and that trend is continuing in the current year. Industry profits are reasonably favourable, and there are no competitive or other apparent threats on the horizon.
4. Internal controls for Stanton are evaluated as reasonably effective for all cycles but not unusually strong. Although Stanton supports the idea of control, Albright has been disappointed that management has continually rejected Albright's recommendation to improve its internal audit function.
5. Stanton has a contract with its employees that if earnings before taxes, interest expense, and pension cost exceed $7.8 million for the year, an additional contribution must be made to the pension fund equal to 5 percent of the excess.

REQUIRED

a. You are to play the role of Pamela Albright in the December 31, 2013, audit of Stanton Enterprises. Make a preliminary judgment of materiality and determine performance materiality for the financial statement accounts. Prepare an audit schedule showing your calculations. (Instructor option: Prepare the schedule using an electronic spreadsheet.)

b. Make an acceptable audit risk decision for the current year as high, medium, or low, and support your answer.

c. Perform analytical procedures for Stanton Enterprises that will help you identify accounts that may require additional evidence in the current year's audit. Document the analytical procedures you perform and your conclusions. (Instructor option: Use an electronic spreadsheet to calculate analytical procedures.)

d. The evidence planning worksheet to decide tests of details of balances for Stanton's accounts receivable is shown in Figure 7-7. Use the information in the case and your conclusions in parts (a) through (c) to complete the following

Figure 7-7 Stanton Enterprises Evidence Planning Worksheet to Decide Tests of Details of Balances for Accounts Receivable

	Detail tie-in	Existence	Completeness	Accuracy	Classification	Cutoff	Realizable value	Rights
Acceptable audit risk								
Inherent risk								
Control risk—Sales								
Control risk—Cash receipts								
Control risk—Additional controls								
Substantive tests of transactions—Sales								
Substantive tests of transactions—Cash receipts								
Analytical procedures								
Planned detection risk for tests of details of balances								
Planned audit evidence for tests of details of balances								

Performance materiality ________

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rows of the evidence planning worksheet: acceptable audit risk; inherent risk; and analytical procedures. Also fill in performance materiality for accounts receivable at the bottom of the worksheet. Make any assumptions you believe are reasonable and appropriate and document them.

Integrated Case Application—Pinnacle Manufacturing: Part II

7-35 In Part I of the case, you performed preliminary analytical procedures for Pinnacle. The purpose of Part II is to identify factors influencing risks and the relationship of risks to audit evidence.

During the planning phase of the audit, you met with Pinnacle's management team and performed other planning activities. You encountered the following situations that you believe may be relevant to the audit:

1. Your firm has an employee who reads and saves articles about issues that may affect key clients. You read an article in the file entitled, "Federal regulations encouraging solar-powered engines postponed?" After reading the article, you realized that the regulations management is relying upon to increase sales of the Solar-Electro division might not go into effect for at least 10 years. A second article was entitled, "Stick to diesel, Pinnacle!" The article claimed that although Pinnacle has proven itself within the diesel engine industry, it lacked the knowledge and people necessary to perform well in the solar-powered engine industry.
2. You asked management for a tour of the Solar-Electro facilities. While touring the warehouse, you noticed a section of solar-powered engines that did not look like the ones advertised on Pinnacle's website. You asked the warehouse manager when those items were first manufactured. He responded by telling you, "I'm not sure. I've been here a year and they were here when I first arrived."
3. You also observed that new computerized manufacturing equipment has been installed at Solar-Electro. The machines were stamped with the words, "Product of Welburn Manufacturing, Windsor, Ontario."
4. During discussions with the Pinnacle controller, you learned that Pinnacle employees did a significant amount of the construction work for a building addition because of employee idle time and to save costs. The controller stated that the work was carefully coordinated with the construction company responsible for the addition.
5. While reading the footnotes of the previous year's financial statements, you noted that one customer—Auto-Electro—accounts for nearly 15 percent of the company's accounts receivable balance. You investigated this receivable and learned that the customer has not made any payments for several months.
6. During a meeting with the facilities director, you learned that the board of directors has decided to raise a significant amount of debt to finance the construction of a new manufacturing plant for the Solar-Electro division. The company also plans to make a considerable investment in modifications to the property on which the plant will be built.
7. While standing in line at a vending machine, you saw a Pinnacle vice president wearing a golf shirt with the words "Todd-Machinery." You are familiar with the company and noticed some of its repairmen working in the plant earlier. You told the man you liked the shirt and he responded by saying, "Thank you. My wife and I own the company, but we hire people to manage it."
8. After inquiry of the internal audit team, you realized that there is significant turnover in the internal audit department. You concluded the turnover is only present at the higher-level positions.
9. While reviewing Pinnacle's long-term debt agreements, you identified several restrictive covenants. Two requirements are to keep the current ratio above 2.0 and debt-to-equity below 1.0 at all times.
10. The engagement partner from your PA firm called today notifying you that Brian Sioux, an industry specialist and senior tax manager from the firm's Toronto office, will be coming on-site to Pinnacle's facilities to investigate an ongoing dispute between the Canada Revenue Agency and Pinnacle.
11. A member of your PA firm, who is currently on-site in Windsor at the Welburn division, called you to see how everything was going while you were visiting Solar-Electro in British Columbia. During your conversation, he asked if you knew anything about the recent inter-company loan from Welburn to Solar-Electro.

REQUIRED

a. Review Part I of the case and the situations in Part II and identify information that affects your assessment of acceptable audit risk. Note that only some of the situations in Part II will relate to acceptable audit risk. Classify the information based on the three factors that affect acceptable audit risk: external users' reliance on financial statements, likelihood of financial difficulties, and management integrity.

b. Assess acceptable audit risk as high, medium, or low considering the items you identified in requirement (a). (A risky client will be assessed as a low acceptable audit risk.) Justify your response.

c. Identify inherent risks for the audit of Pinnacle using the information from Parts I and II. For each inherent risk, identify the account or accounts and the relevant audit objectives that may be affected.

Inherent Risk	Account or Accounts Affected	Relevant Audit Objectives

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Research Activities

RA 7-1 Determining Materiality at OpenText

Establishing materiality and allocation of materiality to individual accounts requires considerable judgment. Access OpenText's financial statements for the year ended June 30, 2014, from the company's website at **www.opentext.com**.

REQUIRED

a. Assume that your firm's materiality guidelines indicate that materiality should be 3–6 percentof net income before taxes. What percentage and dollar amount of materiality would you use for the audit of OpenText? Explain.

b. What asset accounts on OpenText's balance sheet should be allocated the largest amount of performance materiality? Explain.

RA 7-2 Professional Judgment and Materiality

In the opening vignette and Auditing in Action 7-1, we referred to the Financial Reporting Council ("FRC"), the United Kingdom's independent regulator responsible for promoting high quality corporate governance and reporting to foster investment. The councilsets standards for corporate reporting, audit, and actuarial practice and monitors and enforces accounting and auditing standards. During 2013, the council's audit quality review team issued a report based on its inspection and review of the six largest audit firms' audit methodologies and guidance in respect of materiality.

REQUIRED

Obtain and review the report. The report can be accessed on the FRC website at **www.frc.org.uk**. Provide a supported discussion on the role that you think "professional judgment" plays in setting materiality at the accounting firms that were inspected by FRC. Include in your discussion your thoughts on what shapes the audit methodology and guidance in relation to materiality at those firms.

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