PacificCPE

COURSE
21807A

Credit Analysis and Lending Risk Assessment

Evaluating creditworthiness goes well beyond checking a credit score. This course digs into credit analysis from a financial statement perspective, showing you how lenders assess risk, what ratios and metrics matter most, and how to identify warning signs in a borrower's financials. Whether you advise clients seeking financing, work with banks or creditors, or simply want to better understand how debt capacity is evaluated, this course builds practical skills you can apply immediately in your professional work.

CREDIT HOURS 2 | FIELD OF STUDY ACCOUNTING | EXAM QUESTIONS 10

Start Course ↓ | Final Exam Copy ↓

LEARNING ASSIGNMENTS AND OBJECTIVES

Assignment

- Study the full course materials included here.
- Complete the review questions after each chapter.
- Answer 10 final exam questions.
- Final exam is scored immediately, 70% or better passes.
- Certificate of completion is available in your account.
- Failed exams can be retaken free of charge.

Course Objectives

- Identify various ratios used in financial statements.

Copyright Notice

© 2026 Pacific CPE, LP. All rights reserved.

The materials in this course — including the text, illustrations, exhibits, examples, exam questions, and review questions — are the copyrighted property of Pacific CPE, LP. No portion of this course may be reproduced, stored in a retrieval system, distributed, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise) without the prior written permission of Pacific CPE, LP, except for the personal, non-commercial use of the registered learner.

Pacific CPE, LP grants the registered learner a single-seat, non-transferable license to access this course for the purpose of completing the associated continuing professional education credit. Account credentials may not be shared. Group access requires a separate enterprise license.

This course is provided "as is" for educational purposes. While Pacific CPE, LP makes a reasonable effort to ensure the content is current and accurate, the materials should not be relied upon as a substitute for professional advice. Pacific CPE, LP disclaims all liability for any error, omission, or loss arising from the use of, or reliance on, the course content.

Questions about reproduction, licensing, or use of these materials should be directed to support@pacificcpe.com.

Publication Date: May 2026

TABLE OF CONTENTS

CHAPTER 01

Credit Analysis 4

1.01 Balance Sheet Ratios 5

1.02 Income Statement Ratios 14

1.03 Statement Of Cash Flows Ratios 20

1.04 Combination Ratios 22

1.05 Relating Ratios To Credit Risk 29

1.06 Conclusion 45

Test Your Knowledge 47

Final Exam Copy 66

Glossary 53

Index .....

Chapter 1: CREDIT ANALYSIS

Chapter Objective

After completing this chapter, you should be able to:

- Identify various ratios used in financial statements.

Credit analysis is one of the most common uses of financial statements, reflecting the many forms of debt that are essential to the operation of a modern economy. Merchants who exchange goods for promises to pay need to evaluate the reliability of those promises. Commercial banks that lend the merchants the funds to finance their inventories likewise need to calculate the probability of being repaid in full and on time. The banks must in turn demonstrate their creditworthiness to other financial institutions that lend to them by purchasing their certificates of deposit and bonds. In all of these cases, financial statement analysis can significantly influence a decision to extend or not to extend credit.

As important as financial statements are to the evaluation of credit risk, however, the analyst must bear in mind that other procedures also play a role. Financial statements tell much about a borrower's ability to repay a loan but disclose little about the equally important *willingness* to repay. Accordingly, a thorough credit analysis may have to include a check of the subject's past record of repayment, which is not part of a standard financial statement. Moreover, to assess the creditworthiness of the merchant in this example, the bank must consider, along with the balance sheet and income statement, the competitive environment and strength of the local economy in which the borrower operates. Lenders to the bank will in turn consider not only the bank's financial position but also public policy. Believing that a sound banking system benefits the economy as a whole, national governments empower central banks to act as lenders of last resort. As a result, fewer bank failures occur than would be the case under pure, unrestrained competition.

An even more basic reason that analyzing a company's financial statements may not be sufficient for determining its credit quality is that the borrower's credit may be supported, formally or informally, by another entity. Many municipalities obtain cost savings on their financings by having their debt payments guaranteed by bond insurers with premier credit ratings. For holders of these municipal bonds, the insurer's creditworthiness, not the municipality's financial condition, is the basis for determining the likelihood of repayment. Corporations, too, sometimes guarantee the debt of weaker credits. Even when the stronger company does not take on a legal obligation to pay if the weaker company fails on its debt, implicit support may affect the latter's credit quality. If a company is dependent on raw materials provided by a subsidiary, there may be a reasonable presumption that it will stand behind the subsidiary's debt, even in the absence of a formal guarantee.

Keeping in mind that the final judgment may be influenced by other information as well, the analyst can begin to extract from the financial statements the data that bear on credit risk. Each of the basic statements – the balance sheet, income statement, and statement of cash flows – yields valuable insights when studied through ratio analysis techniques, as well as when used in the evaluation of fixed- income securities. In each case, the analyst must temper any enthusiasm *generated* by a review of historical statements with caution based on a consideration of financial ratios derived from projected statements for future years.

BALANCE SHEET RATIOS

The most immediate danger faced by a lender is the risk that the borrower will suffer illiquidity – an inability to raise cash to pay its obligations. This condition can arise for many reasons, one of which is a loss of ability to borrow new funds to pay off existing creditors. Whatever the underlying cause, however, illiquidity manifests itself as an excess of current cash payments due, over cash currently available. The current ratio gauges the risk of this occurring by comparing the claims against the company that will become payable during the current operating cycle (current liabilities) with the assets that are already in the form of cash or that will be converted to cash during the current operating cycle (current assets). Referring to capital goods manufacturer Illinois Tool Works's balance sheet (Exhibit 13.1), the company's current ratio as of December 31, 2019, was 2.90:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$6{,}253}{\$2{,}154} = 2.9$$

Analysts also apply a more stringent test of liquidity by calculating the quick ratio, or acid test, which considers only cash and current assets that can be most quickly converted to cash (marketable securities and receivables). Illinois Tool Works's quick ratio on December 31, 2019, was 2.06:

$$\text{Quick ratio} = \frac{\text{Quick assets}}{\text{Current liabilities}} = \frac{\$1{,}981 + 2{,}461}{\$2{,}154} = 2.06$$

Besides looking at the ratio between current assets and current liabilities, it is also useful, when assessing a company's ability to meet its near-term obligations, to consider the difference between the two, which is termed working capital. Referring once again to Exhibit 13.1, working capital is $4.099 billion.

Working capital	=	Current assets	-	Current Liabilities
$4,099	=	$6,253		$2,154

Analysis of current assets and current liabilities provides warnings about impending illiquidity, but lenders nevertheless periodically find themselves saddled with loans to borrowers that are unable to continue meeting their obligations and are therefore forced to file for bankruptcy. Recognizing that they may one day find themselves holding defaulted obligations, creditors wish to know how much asset value will be available for liquidation to pay off their claims[1]. The various ratios that address this issue can be grouped as measures of financial leverage.

EXHIBIT 13.1 ILLINOIS TOOL WORKS INC. BALANCE SHEET

Statement of Financial Position – USD ($) in Millions	Dec. 31, 2019
Current assets:	
Cash and equivalents	$1,981
Trade receivables	2,461
Inventories	1,164
Prepaid expenses and other current assets	296
Assets held for sale	351
Total current assets	6,253
Net plant and equipment	1,729
Goodwill	4,492
Intangible assets	851
Deferred income taxes	516
Other assets	1,227
Total assets	15,068
Current liabilities:	
Short-term debt	4
Accounts payable	472
Accrued expenses	1,217
Cash dividends payable	342
Income taxes payable	48
Liabilities held for sale	71
Total current liabilities	2,154
Noncurrent liabilities:	
Long-term debt	7,754
Deferred income taxes	668
Noncurrent income taxes payable	462
Other liabilities	1,000
Total noncurrent liabilities	9,884
Common stock (par value of $0.01 per share):	
Issued – 550.0 shares in 2019 and 2018 outstanding – 319.8 shares in 2019 and 328.1 shares in 2018	6
Additional paid-in-capital	1,304
Retained earnings	22,403
Common stock held in treasury	(18,982)
Accumulated other comprehensive income (loss)	(1,705)
Noncontrolling interest	4
Total stockholders' equity	3,030
Total liabilities and stockholders' equity	$15,068

Source: 10K.

A direct measure of asset protection is the ratio of total assets to total liabilities, which in the example shown in Exhibit 13.1 comes to:

$$\frac{\text{Total assets}}{\text{Total liabilities}} = \frac{\$15{,}068}{\$2{,}154 + 9{,}884} = 1.25$$

Note that total liabilities (short-term and long-term) of $12.038 billion are equivalent to total assets less shareholders' equity. Looking at it another way, Illinois Tool Works's assets of $15.068 billion could decline in value by 20 percent before proceeds of a liquidation would be insufficient to satisfy lenders' claims. The greater the amount by which asset values could deteriorate, the greater the equity cushion (equity is, by definition, total assets minus total liabilities), and the greater the creditor's sense of being protected.

Lenders also gauge the amount of equity "beneath" them (junior to them in the event of liquidation) by comparing it with the amount of debt outstanding. For finance companies, where the ratio is typically greater than 1.0, it is convenient to express the relationship as a debt-equity ratio:

$$\frac{\text{Total debt}}{\text{Total equity}}$$

Conventionally capitalized industrial corporations (as opposed to companies that have undergone leveraged buyouts), generally have debt-equity ratios of less than 1.0. The usual practice is to express their financial leverage in terms of a total-debt-to-total-capital ratio:

$$\frac{\text{Total debt}}{\text{Total debt + Minority interest + Total equity}}$$

Banks' capital adequacy is commonly measured by the ratio of equity to total assets:

$$\frac{\text{Total equity}}{\text{Total assets}}$$

Many pages of elaboration could follow on the last few ratios mentioned. Their calculation is rather less simple than it might appear. The reason is that aggressive borrowers frequently try to satisfy the letter of a maximum leverage limit imposed by lenders without fulfilling the conservative spirit behind it. The following discussion of definitions of leverage ratios addresses the major issues without laying down absolute rules about correct calculations. As explained later in the chapter, ratios are most meaningful when compared across time and across borrower. Consequently, the precise method of calculation is less important than the consistency of calculation throughout the sample being compared.

What Constitutes Total Debt?

At one time, it was appropriate to consider only long-term debt in leverage calculations for industrial companies, since short-term debt was generally used for seasonal purposes, such as financing Christmas-related inventory. A company might draw down bank lines or issue commercial paper to meet these funding requirements, then completely pay off the interim borrowings when it sold the inventory. Even today, a firm that zeros out its short-term debt at some point in each operating cycle can legitimately argue that its true leverage is represented by the permanent (long-term) debt on its balance sheet. Many borrowers have long since subverted this principle, however, by relying heavily on short-term debt that they neither repay on an interim basis nor fund (replace with long-term debt) when it grows to sufficient size to make a bond offering cost-effective. Such short-term debt must be viewed as permanent and included in the leverage calculation. (Current maturities of long-term debt should also enter into the calculation of total debt, based on a conservative assumption that the company will replace maturing debt with new long-term borrowings.)

As an aside, the just-described reliance on short-term debt is not necessarily as dangerous a practice as in years past, although it should still raise a caution flag for the credit analyst. Two risks are inherent in depending on debt with maturities of less than one year. The first is potential illiquidity. If substantial debt comes due at a time when lenders are either unable to renew their loans (because credit is tight) or unwilling to renew (because they perceive the borrower as less creditworthy than formerly), the borrower may be unable to meet its near-term obligations. This risk may be mitigated, however, if the borrower has a revolving credit agreement, which is a longer-term commitment by the lender to lend (subject to certain conditions, such as maintaining prescribed financial ratios and refraining from significant changes in the business). The second risk of relying on short-term borrowings is exposure to interest-rate fluctuations. If a substantial amount of debt is about to come due, and interest rates have risen sharply since the debt was incurred, the borrower's cost of staying in business may skyrocket overnight.

Note that exposure to interest rate fluctuations can also arise from long-term **floating-rate debt**. Companies can limit this risk by using **financial derivatives**. One approach is to cap the borrower's interest rate, that is, set a maximum rate that will prevail, no matter how high the market rate against which it is pegged may rise. Alternatively, the borrower can convert the floating-rate debt to ***fixed-rate*** *debt* through a derivative known as an interest-rate swap. (The forces of supply and demand may make it more economical for the company to issue floating-rate debt and incur the cost of the swap than to take the more direct route to the same net effect, that is, to issue fixed-rate debt.) Public financial statements typically provide only general information about the extent to which the issuer has limited its exposure to interest rate fluctuations through derivatives.