

Valuation Principles Examination Content Specification Outline



© 2018 Association of International Certified Professional Accountants. All rights reserved. AICPA and American Institute of CPAs are trademarks of the American Institute of Certified Public Accountants and are registered in the United States, European Union and other countries. The Globe Design is a trademark owned by the Association of International Certified Professional Accountants and licensed to the AICPA.

DISCLAIMER: The contents of this publication do not necessarily reflect the position or opinion of the American Institute of CPAs, its divisions and its committees. This publication is designed to provide accurate and authoritative information on the subject covered. It is distributed with the understanding that the authors are not engaged in rendering legal, accounting or other professional services. If legal advice or other expert assistance is required, the services of a competent professional should be sought.

For more information about the procedure for requesting permission to make copies of any part of this work, please email copyright@aicpa.org with your request. Otherwise, requests should be written and mailed to the Permissions Department, AICPA, 220 Leigh Farm Road, Durham, NC 27707-8110.

TABLE OF CONTENTS

The Valuation Principles Examination	2
Detailed Content Specification Outline	3
I. Qualitative and Quantitative Analyses 25–30%	3
II. Valuation Analysis 50–60%	4
III. Related Topics 15–20%	7
Resource Index	10
Formulas and Definitions of Variables	11

THE VALUATION PRINCIPLES EXAMINATION

The content of the Valuation Principles Examination was developed to test a candidate's understanding of the business valuation body of knowledge generally accepted by the business valuation community. The content of each of the three topical sections is described in outline form and provides an overview of the knowledge and skills tested on the Valuation Principles Examination. The percentage range following each major content area in the outline represents the approximate weighting for that content area. The examination questions are intended to test each content area and its logical extensions.

The examination consists of multiple-choice questions intended to test technical knowledge concerning business valuation and the practical application of business valuation knowledge. The exam is fully computerized and split into two test modules. Part 1, "Foundation of Valuation Theory," covers Section I and III and Part 2, "Implementation of Valuation Methods," covers Sections II. Exam modules may be taken in any order.

A list of formulas and definition of variables is provided at the end of this document. These are the proscribed formulas and the definitions that are to be used on the examination. Candidates will be provided this list during the examination.

High-Level Content Specification Outline

- I. Qualitative and Quantitative Analyses (25–30%) — Exam Part 1 "Foundation of Valuation Theory"
 - A. Defining the Engagement
 - B. Sources of Economic and Industry Data
 - C. Macro-Economic and Environmental Analysis
 - D. Industry Analysis
 - E. Subject Entity Analysis
- II. Valuation Analysis (50–60%) — Exam Part 2 "Implementation of Valuation Methods"
 - A. Valuation Approaches
 - B. Discounts, Premiums and other Adjustments
 - C. Conclusion of Value
- III. Related Topics (15–20%) — Exam Part 1 "Foundation of Valuation Theory"
 - A. Professional Standards
 - B. Tax-Related Valuations
 - C. Financial Reporting
 - D. Litigation Services
 - E. Case Law
 - F. Intellectual Property and Other Intangible Assets
 - G. Employee Stock Ownership Plans (ESOPs)
 - H. Valuing Complex Securities

DETAILED CONTENT SPECIFICATION OUTLINE

Section I. Qualitative and Quantitative Analyses 25–30% — Exam Part 1 “Foundation of Valuation Theory”

This section covers defining the engagement, sources of data, techniques and methods used to analyze business the interest, value drivers and risk assessments.

Topic/Content	Referenced Readings
<p>A. Defining the Engagement</p> <ol style="list-style-type: none">Standards of Value (e.g., Fair Market Value, Fair Value — Financial Reporting, Investment Value, Intrinsic [Fundamental] Value)Relationship Between Purpose of the Valuation and the Standard of ValueUnderstanding the Ownership Characteristics of the Interest Being ValuedPremise of Value for Business Interests (i.e., ongoing concern and liquidation)Engagement Letters (e.g., purpose and content)	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapters 3 and 4</p> <p><i>Financial Valuation: Applications and Models</i>, chapter 2</p> <p>VS Section 100</p>
<p>B. Sources of Economic and Industry Data</p> <p>C. Macro-Economic and Environmental Analysis</p> <p>D. Industry Analysis</p> <ol style="list-style-type: none">Industry Structure and Life-Cycle AnalysisCompetitive Strategies and Analysis <p>E. Subject Entity Analysis</p> <ol style="list-style-type: none">Entity Documents (e.g., operating agreements, buy-sell agreements and bylaws)SWOT (strengths, weaknesses, opportunities and threats) AnalysisFirm Economics (cost structure and pricing power marginal analysis)Historic and Forecast Financial Statements<ol style="list-style-type: none">Common SizeTrend AnalysisFinancial Ratios (a list of definitions, ratios and formulas provided during the exam is included at the end of this document)DuPont Analysis; Return on Equity and Return on AssetsAdjustments to Historic and Forecast Financial Statements<ol style="list-style-type: none">NormalizingControl vs. Non-controlSeparation of Operating and Non-operating itemsOff balance Sheet Items<ol style="list-style-type: none">Other adjustmentsImplied tax adjustmentsUnusual and/or non-recurring itemsGAAP based adjustments	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapters 5, 6 and 8</p> <p><i>Financial Valuation: Applications and Models</i>, chapters 4 and 5</p>

Section II. Valuation Analysis 50–60% — Exam Part 2
“Implementation of Valuation Methods”

This section covers knowledge of the three primary approaches to value, levels of value, discounts, premiums and the conclusion of value.

Topic/Content	Referenced Readings
<p>A. Valuation Approaches</p> <p>1. Income Approach</p> <p>a. General Theory</p> <p>b. Sources of Data</p> <p>c. Commonly Used Methods</p> <p>1) Capitalized Economic Income/Cash Flow Method (CCF), Including Gordon Growth Model (consistent growth model)</p> <p>2) Discounted Economic Income/Cash Flow Method (DCF), including Gordon Growth Model (two-stage model)</p> <p>3) Excess Earnings Method (hybrid method)</p> <p>d. Commonly Used Models — Direct Equity Model Versus Invested Capital Model</p> <p>e. Types of Benefit Streams and Selection</p> <p>f. Cost of Capital Concepts and Methodology and Other Models</p> <p>1) Capital Asset Pricing Model (CAPM) and Beta (B) including Unlevering and Relevering Betas</p> <p>2) Build-up Method</p> <p>3) Duff and Phelps Risk Premiums</p> <p>4) Weighted Average Cost of Capital</p> <p>5) Understanding the Security Market</p> <p>6) Understanding Option Pricing Theory</p> <p>g. Selection of Appropriate Time (including mid-year convention)</p>	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapters 12 and 13</p> <p><i>Financial Valuation: Applications and Models</i>, chapters 5 and 6</p>

Topic/Content	Referenced Readings
<p>2. Market Approach</p> <ul style="list-style-type: none"> a. General Theory b. Sources of Data c. Commonly Used Methods <ul style="list-style-type: none"> 1) Transactions in Subject Company's Stock 2) Guideline Publicly Traded Company Method 3) Guideline Merged and Acquired Company (transaction) Method d. Selecting Guideline Companies e. Statistics Related to Valuation Analysis <ul style="list-style-type: none"> 1) Understanding Measures of Central Tendency (e.g., arithmetic, harmonic and geometric means and median) 2) Understanding Measures of Dispersion (e.g., variance and standard deviation) 3) Understanding Statistical Strengths of Numerical Relationships (including covariance, correlation, coefficient of determination and coefficient of variation) 4) Understanding Linear Regression f. Equity versus Invested Capital (including price multiples) g. Selection of Appropriate Time Periods h. Selection and Adjustment of Appropriate Multiples 	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapters 9 and 10</p> <p><i>Financial Valuation: Applications and Models</i>, chapter 8</p>
<p>3. Asset Approach</p> <ul style="list-style-type: none"> a. General Theory b. Sources of Data c. Adjusted (Net) Asset Method d. Considerations in Liquidation e. Issues in Valuing Intangible Assets: Approaches and Methods f. Tax Affecting the Balance Sheet 	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapter 11</p> <p><i>Financial Valuation: Applications and Models</i>, chapter 9</p>

Topic/Content	Referenced Readings
<p>B. Discounts, Premiums and Other Adjustments</p> <ol style="list-style-type: none"> 1. Levels of Value Appropriate to the Engagement <ol style="list-style-type: none"> a. Control Strategic (public or private company) b. Minority/Control Standalone Liquid (public company) c. Control Liquid (private company) d. Control Standalone (private company) e. Minority Non-marketable (private company) 2. Discount for Lack of Control (DLOC) and Control Premium <ol style="list-style-type: none"> a. Sources of Data b. Ownership Characteristics c. Magnitude 3. Discount for Lack of Marketability (DLOM) <ol style="list-style-type: none"> a. Sources of Data b. Ownership Characteristics c. Restrictions and Transferability d. Magnitude 4. Discount and Premiums — Understanding the Empirical Studies 5. Allocation Between Voting and Non-voting stock 6. Other Valuation Discounts and Adjustments <ol style="list-style-type: none"> a. Market Absorption and Blockage Discounts b. Key Person/Thin Management Discounts c. Built-in Gains Tax Discount d. Nonvoting Stock Discount 	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapters 14 and 15</p> <p><i>Financial Valuation: Applications and Models</i>, chapter 10</p>
<p>C. Conclusion of Value</p> <ol style="list-style-type: none"> 1. Reconciliation of Indicated Values 2. Reasonableness of Conclusion 	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapter 17</p> <p>VS Section 100</p>

Section III. Related Topics 15–20% — Exam Part 1 “Foundation of Valuation Theory”

This section covers knowledge of other important topics pertaining to business valuation. These include regulatory standards and guidelines; financial reporting; litigation

and dispute resolution services; case law; intellectual property and other intangible assets; tax-related valuations; employee stock ownership plans (ESOPs); and complex securities.

Topic/Content	Referenced Readings
<p>A. Professional Standards</p> <ol style="list-style-type: none">1. AICPA VS Section 100, Valuation of a Business, Business Ownership Interest, Security, or Intangible Asset (VS Section 100)2. AICPA Code of Professional Conduct ET 1.200.001 “Independence Rule” and Interpretations of the “Nonattest Services” Subtopic [1.295] (Pronouncements and Regulations related to Independence Requirements when Providing Business Valuation Services to Attest Clients)	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapter 2</p> <p><i>Financial Valuation: Applications and Models</i>, chapter 12</p>
<p>B. Tax-Related Valuations</p> <ol style="list-style-type: none">1. Internal Revenue Service (IRS) Authority (Related to Valuation)<ol style="list-style-type: none">a. Revenue Rulings and Procedures<ol style="list-style-type: none">1) Revenue Ruling 59-60 (fundamental valuation considerations and the definition of fair market value)2) Revenue Ruling 68-609 (the excess earnings method)3) Revenue Ruling 77-287 (DLOM for restricted stock)4) Revenue Ruling 83-120 (preferred stock)5) Revenue Ruling 93-12 (family attribution)b. Other IRS Pronouncements<ol style="list-style-type: none">1) Internal Revenue Code (IRC) Section 2036 Transfers with retained life estate2) Definition of a Qualified Appraiser and Appraisal2. Family Limited Partnership (FLP) and Limited Liability Company (LLC) Considerations<ol style="list-style-type: none">a. Internal Revenue Code (IRC) Chapter 14 (special rules for family transfers and FLPs)<ol style="list-style-type: none">1) Internal Revenue Code (IRC) Section 27012) Internal Revenue Code (IRC) Section 27033) Internal Revenue Code (IRC) Section 27043. Pass-Through Entity Considerations	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapters 4, 16, 18 and 21</p> <p><i>Financial Valuation: Applications and Models</i>, chapters 13, 14 and 15</p>

Topic/Content	Referenced Readings
<p>C. Financial Reporting</p> <ol style="list-style-type: none"> 1. Fair Value Measurements (FASB ASC 820) 2. Business Combinations (FASB ASC 805) 3. Goodwill and Other Intangibles and Measuring Impairment (FASB ASC 350) 4. Accounting for the Impairment of Long-lived Assets (FASB ASC 360) 5 Compensation — Stock Compensation (FASB ASC 718) 6. Contingent Considerations 7. AICPA Statement on Auditing Standards AU Sec. 336 (Using the Work of a Specialist) and AU Sec. 328 (Auditing Fair Value Measurements and Disclosures) 	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapter 19</p> <p><i>Financial Valuation: Applications and Models</i>, chapter 24</p>
<p>D. Litigation Services</p> <ol style="list-style-type: none"> 1. Shareholder Disputes 2. Marital Dissolutions 3. Commercial Damages: Lost Profits vs. Loss of Value 4. Federal Rules of Civil Procedure (Rule 26 General Provisions Governing Discovery; Duty of Disclosure) 5. Federal Rules of Evidence (Rule 702 — Basis of Opinion Testimony by Experts) 6. Roles of the Valuation Analyst in Litigation Services (i.e., Expert Witness and/or Consultant) 7. Scope of Services <ol style="list-style-type: none"> a. Engagement Letter Considerations for Litigation b. Fact Finding (including discovery and analysis of data) c. Document Management d. Expert Witness Testimony 	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapters 17, 22, 24 and 26</p> <p><i>Financial Valuation: Applications and Models</i>, chapters 17, 19, 23 and 26</p>
<p>E. Case Law</p> <ol style="list-style-type: none"> 1. Directly Related to Business Valuation <ol style="list-style-type: none"> a. Bernard Mandelbaum et al. v. Commissioner b. Delaware Open MRI Radiology Associates P.A. v. Howard B. Kessler, et al. c. Estate of Frazier Jelke v. Commissioner d. Gross v. Commissioner 2. Relating to Admissibility of Expert Opinions <ol style="list-style-type: none"> a. Daubert, William, et al. v. Merrell Dow Pharmaceuticals, Inc. b. Kumho Tire Company, Ltd., et al. v. Patrick Carmichael, et al. 	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapter 27</p> <p><i>Financial Valuation: Applications and Models</i>, chapter 16</p>

Topic/Content	Referenced Readings
<p>F. Intellectual Property and Other Intangible Assets</p> <ol style="list-style-type: none"> 1. Valuation Approaches and Methods 2. Valuing Specific Intangible Assets 	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapter 20</p> <p><i>Financial Valuation: Applications and Models</i>, chapter 24</p>
<p>G. Employee Stock Ownership Plans (ESOPs)</p> <ol style="list-style-type: none"> 1. Appropriate Methods 2. U.S. Department of Labor Adequate Consideration Regulations 3. Marketability Considerations 	<p><i>Financial Valuation: Applications and Models</i>, chapter 18</p>
<p>H. Valuing Complex Securities</p> <ol style="list-style-type: none"> 1. Preferred Stock 2. Convertible Instruments 3. Stock Options and Other Derivative Instruments 4. Debt 	<p><i>Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses</i>, chapter 25</p> <p><i>Financial Valuation: Applications and Models</i>, chapter 27</p>

Resource Index

- *Understanding Business Valuation: A Practical Guide to Valuing Small to Medium Sized Businesses* by Gary R. Trugman; 5th ed.; 2017; New York: AICPA.
- *Financial Valuation: Applications and Models* edited by James R. Hitchner; 4th ed.; 2017; New Jersey: John Wiley & Sons.
- *AICPA VS Section 100, Valuation of a Business, Business Ownership Interest, Security, or Intangible Asset (VS Section 100)*
- *AICPA Code of Professional Conduct*

Formulas and Definition of Variables

Unless otherwise stated, when ratios involve a comparison of income statement values to balance sheet values, the balance sheet values should be the average of the beginning and ending balances.

Financial Ratios

Accounts Receivable Turnover: Sales ÷ Accounts receivable

Average Annual Growth Rate (AAGR):

Example: AAGR of Sales

{Sum of all Periods [(Current year sales ÷ Prior year sales) – 1] ÷ # of periods analyzed} × 100

Average Collection Period:

365 days ÷ Accounts Receivable Turnover

Compound Annual Growth Rate (CAGR):

Example: CAGR of Sales

{[(Current year sales ÷ Base year sales) ^(1 ÷ # of Periods analyzed) – 1] × 100

Current Ratio

Current assets ÷ Current liabilities

Debt-Free Working Capital Turnover

Sales ÷ Debt-free working capital

Dividend Payout Ratio

Dividends paid ÷ Net income

DuPont Formula (Net income ÷ Equity) = (Net income ÷ Sales) × (Sales ÷ Assets) × (Assets ÷ Equity)

EVA Formula (Economic Value Added)

EVA = NOPAT – \$ WACC

EVA = EBIT × (1 – t) – WACC × capital invested

EVA = (Equity) × (ROE – Ke)

Fixed-Charge Coverage

(Net income before taxes + Interest charges + Long-term lease payments) ÷ (Interest charges + Long-term lease payments)

Gross Profit Margin

Gross profit ÷ Net sales

Interest-Bearing Debt to Equity

Interest-bearing debt ÷ Total equity

Inventory Turnover

Cost of goods sold ÷ Inventory

Long-Term Debt to Equity

Long-term debt ÷ Total equity

Net Profit Margin

Net income after tax ÷ Net Sales

Operating Profit Margin

Operating profit ÷ Net sales

Pretax Income to Sales

Pretax income ÷ Net sales

Pretax Return on Assets

Pretax income ÷ Total assets

Pretax Return on Common Equity

Pretax Income ÷ Common equity

Quick (Acid-Test) Ratio (Cash + Cash equivalents + Short-term investments, e.g., marketable securities, + Receivables) ÷ Current liabilities

Return on Common Equity

Net income ÷ Common equity

Return on Investment

Net income + Interest (1 – Tax rate) ÷ (Equity + Long-term debt)

Return on Total Assets Net income + Interest (1 – Tax rate) ÷ Total Assets

Sales to Fixed Assets (Fixed Asset Turnover)

Sales ÷ Fixed assets

Sales to Total Assets (Total Asset Turnover)

Sales ÷ Total assets

Times Interest Earned

Earnings before interest and taxes ÷ Interest expense

Total Debt to Total Assets

Total debt ÷ Total assets

Total Debt to Total Equity

Total debt ÷ Total equity

Total Equity to Total Assets

Total equity ÷ Total assets

Working Capital Turnover

Sales ÷ (Current assets – Current liabilities)

Valuation Formulas and Notation System After-Tax Cost of Debt

k_d = Marginal Borrowing Rate (1–Marginal Tax Rate)

Beta

$B_U = B_L \div \{1 + [(1-t)(W_d/W_e)]\}$

$B_R = B_U\{1 + [(1-t)(W_d/W_e)]\}$

Build-Up Method

$k_e = R_f + (R_{Pm}) + R_{Ps} + R_{Pu}$

Capitalization Rate

Cap Rate = Discount Rate – Long-Term Growth Rate

CAPM Capital Asset Pricing Model (Theoretical)

$k_e = R_f + B(R_{Pm})$

Modified CAPM Capital Asset Pricing Model (used to value smaller businesses)

$k_e = R_f + B(R_{Pm}) + R_{Ps} + R_{Pu}$

Weighted Average Cost of Capital (WACC)

$WACC = W_e(k_e) + W_d(k_d)$

Definition of Variables

PV = Present Value.

COST OF CAPITAL AND RATE OF RETURN VARIABLES:

B = Beta. A coefficient, usually used to modify a rate of return variable. Betas from public companies are levered betas.

BL = Levered beta.

BU = Unlevered beta.

BR = Relevered beta.

Ke = Discount rate for common equity capital (cost of common equity capital): Unless otherwise stated, it generally is assumed that this discount rate is applicable to net cash flow available to common equity. Also expressed as k_i or as $E(R_i)$, expected rate of return on security i .

kd = After-tax cost of debt

Rf. = Risk-free rate: The rate of return available in the market on an investment that is free of default risk.

RPm = Equity risk premium for the “market” (large company premium): usually used in the context of a market for equity securities, such as NYSE or S&P 500. Return in excess of risk-free rate

RP_s = Risk premium for “small” stock (small stock premium), over and above RP_m (e.g., average size of lowest quartile of NYSE as measured by market value of common equity)

RP_u = Risk premium for unsystematic risk attributable to the specific company (specific company risk)

t = Tax rate (expressed as a percentage of pretax income)

INCOME VARIABLES:

EBIT = Earnings before interest and taxes

EBITDA = Earnings before interest, taxes, depreciation, and amortization

NCF = Net cash flow (to equity or to invested capital)

Weightings:

W_e = Weight of common equity in capital structure

W_d = Weight of debt in capital structure

GROWTH:

g = Long-term rate of growth

