Accredited in Business Valuation



# Global ABV Examination Blueprint

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### The pathway to the ABV credential

The content of the global Accredited in Business Valuation (ABV<sup>®</sup>) 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 topical section is described in outline form and provides an overview of the knowledge and skills tested on the ABV Examination. The percentage 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 Part 2, "Implementation of Valuation Methods," covers Section II. Exam modules may be taken in any order.

A list of formulas and definitions 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 exam blueprint

- I. Foundation of Valuation Theory (Exam Part 1 50%)
- A. Professional standards
- B. Financial reporting
- C. Defining the engagement
- D. Sources of economic and industry data
- E. Macro-economic and environmental analysis
- F. Industry analysis
- G. Subject entity analysis

- II. Implementation of Valuation Methods (Exam Part 2 50%)
- A. Valuation approaches
- B. Intellectual property and other intangible assets
- C. Discounts, premiums and other adjustments
- D. Conclusion of value

# Detailed exam blueprint

#### Section I. Foundation of Valuation Theory

#### (Exam Part 1 - 50%)

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

Topic/content	Referenced readings
<ul> <li>A. Professional standards</li> <li>1. AICPA VS Section 100, Valuation of a Business, Business Ownership Interest, Security, or Intangible Asset (VS Section 100)</li> <li>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)</li> </ul>	Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapter 2 Financial Valuation: Applications and Models, chapter 12
<ul> <li>B. Financial Reporting <ol> <li>Fair value measurements (FASB ASC 820)</li> <li>Business combinations and contingent considerations (FASB ASC 805)</li> <li>Goodwill, intangibles, long-lived assets, and measuring impairment (FASB ASC 350 &amp; 360)</li> <li>Compensation – stock compensation (FASB ASC 718)</li> <li>AICPA Statement on Auditing Standards AU Sec. 336 (Using the Work of a Specialist) And AU Sec. 328 (Auditing Fair Value Measurements And Disclosures)</li> </ol></li></ul>	Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapter 19 Financial Valuation: Applications and Models, chapter 24
<ul> <li>C. Defining the engagement</li> <li>1. Standards of value (e.g., fair market value, fair value – financial reporting, investment value, intrinsic [fundamental] value)</li> </ul>	Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapters 3, 4 and 16

- a. Internal Revenue Service (IRS) Revenue Ruling 59–60 (fundamental valuation considerations and the definition of fair market value)
- 2. Relationship between a purpose of the valuation and the standard of value
- 3. Understanding the ownership characteristics of the interest being valued
- 4. Premise of value for business interests (i.e., ongoing concern and liquidation)
- 5. Engagement letters (e.g., purpose and content)

*Financial Valuation: Applications and Models, chapter 2* 

VS Section 100

#### Topic/content

- D. Sources of economic and industry data
- E. Macro-economic and environmental analysis
- F. Industry analysis
  - 1. Industry structure and life-cycle analysis
  - 2. Competitive strategies and analysis
- G. Subject entity analysis
  - 1. Entity documents (e.g., operating agreements, buy-sell agreements and bylaws)
  - 2. SWOT (strengths, weaknesses, opportunities and threats) analysis
  - 3. Firm economics (cost structure and pricing power marginal analysis)
  - 4. Historic and forecast financial statements
    - a. Common size
    - b. Trend analysis
    - c. Financial ratios (a list of definitions, ratios and formulas provided during the exam is included at the end of this document)
    - d. DuPont analysis; return on equity and return on assets
  - 5. Adjustments to historic and forecast financial statements
    - a. Normalizing
    - b. Control vs. non-control
    - c. Separation of operating and non-operating items
    - d. Off balance sheet items
    - 1) Other adjustments
    - 2) Implied tax adjustments
    - 3) Unusual and/or non-recurring items
    - 4) GAAP based adjustments

#### Referenced readings

Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapters 5, 6 and 8

*Financial Valuation: Applications and Models,* chapters 4 and 5

#### Section II. Implementation of Valuation Methods

#### (Exam Part 2 - 50%)

This section covers knowledge of the three primary approaches to value; intellectual property and intangible assets; levels of value; discounts; premiums and the conclusion of value.

#### Topic/content

#### A. Valuation approaches

- 1. Income approach
  - a. General theory
  - b. Sources of data
  - c. Commonly used methods
    - 1) Capitalized economic income/cash flow method (CCF), including Gordon Growth Model (consistent growth model)
    - 2) Discounted economic income/cash flow method (DCF), including Gordon Growth Model (two-stage model)
    - 3) Excess earnings method (hybrid method)
  - d. Commonly used models direct equity model versus invested capital model
  - e. Types of benefit streams and selection
  - f. Cost of capital concepts and methodology and other models
    - 1) Capital asset pricing model (CAPM) and beta (B) including unlevering and relevering betas
    - 2) Build-up method
    - 3) Duff and Phelps risk premiums
    - 4) Weighted average cost of capital
    - 5) Understanding the security market
    - 6) Understanding option pricing theory
  - g. Selection of appropriate time (including mid-year convention)

#### Referenced readings

Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapters 12 and 13

*Financial Valuation: Applications and Models,* chapters 5 and 6

#### Topic/content

- 2. Market approach
  - a. General theory
  - b. Sources of data
  - c. Commonly used methods
    - 1) Transactions in subject company's stock
    - 2) Guideline publicly traded company method
    - Guideline merged and acquired company (transaction) method
  - d. Selecting guideline companies
  - e. Statistics related to valuation analysis
    - 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)
    - 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
- 3. Asset approach
  - a. General theory
  - b. Sources of data
  - c. Adjusted (net) asset method
  - d. Considerations in liquidation
  - e. Issues in valuing intangible assets
  - f. Tax affecting the balance sheet

#### Referenced readings

Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapters 9 and 10

Financial Valuation: Applications and Models, chapter 8

Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapter 11

Financial Valuation: Applications and Models, chapter 9

#### Topic/content

B. Intellectual property and other intangible assets

- 1. Valuation approaches and methods
- 2. Valuing specific intangible assets
- C. Discounts, premiums and other adjustments
  - 1. Levels of value appropriate to the engagement
    - 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
    - a. Sources of data
    - b. Ownership characteristics
    - c. Magnitude
  - 3. Discount for lack of marketability (DLOM)
    - 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
    - a. Market absorption and blockage discounts
    - b. Key person/thin management discounts
    - c. Built-in gains tax discount
    - d. Nonvoting stock discount
- D. Conclusion of value
  - 1. Reconciliation of indicated values
  - 2. Reasonableness of conclusion

#### Referenced readings

Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapter 20

Financial Valuation: Applications and Models, chapter 24

Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapters 14 and 15

Financial Valuation: Applications and Models, chapter 10

Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses, chapter 17

VS Section 100

## 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

#### 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) <sup>(1 + # of periods analyzed)</sup>] - 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

kd = marginal borrowing rate (1-marginal tax rate)

Beta BU = BL  $\div$  {1 + [(1-t)(Wd/We)]} BR = BU{1 + [(1-t)(Wd/We)]}

Build-up method ke = rf + (rpm) + RPs + RPu

**Capitalization rate** Cap rate = discount rate – long-term growth rate

CAPM capital asset pricing model (theoretical) Ke = Rf + b(RPm)

**Modified CAPM capital asset pricing model** (used to value smaller businesses) Ke = Rf + B(RPm) + RPs +RPu

Weighted average cost of capital (WACC) WACC = We(ke) + Wd(kd)

Definition of variables

PV = present value.

#### Cost of capital and rate of return variables:

 ${f B}$  = 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 ki or as E(Ri), 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

**RPs** = Risk premium for "small" stock (small stock premium), over and above rpm (e.g., average size of lowest quartile of NYSE as measured by market value of common equity)

**RPu** = 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:

We = Weight of common equity in capital structure

Wd = Weight of debt in capital structure

#### Growth:

**g** = Long-term rate of growth



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