



FINANCIAL STATEMENT ANALYSIS



CFA[®] Program Curriculum
2026 • LEVEL II • VOLUME 3

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How to Use the CFA Program Curriculum

The CFA® Program exams measure your mastery of the core knowledge, skills, and abilities required to succeed as an investment professional. These core competencies are the basis for the Candidate Body of Knowledge (CBOK™). The CBOK consists of four components:

A broad outline that lists the major CFA Program topic areas (www.cfainstitute.org/programs/cfa/curriculum/cbok/cbok)

Topic area weights that indicate the relative exam weightings of the top-level topic areas (www.cfainstitute.org/en/programs/cfa/curriculum)

Learning outcome statements (LOS) that tell you the specific knowledge, skills, and abilities you should gain from each curriculum topic area. You will find these statements at the start of each learning module and lesson. We encourage you to review the information about the LOS on our website (www.cfainstitute.org/programs/cfa/curriculum/study-sessions), including the descriptions of LOS “command words” on the candidate resources page at www.cfainstitute.org/-/media/documents/support/programs/cfa-and-cipm-los-command-words.ashx.

The CFA Program curriculum that candidates receive access to upon exam registration.

Therefore, the key to your success on the CFA exams is studying and understanding the CBOK. You can learn more about the CBOK on our website: www.cfainstitute.org/programs/cfa/curriculum/cbok.

The curriculum, including the practice questions, is the basis for all exam questions. The curriculum is selected/developed specifically to provide candidates with the knowledge, skills, and abilities reflected in the CBOK.

CFA INSTITUTE LEARNING ECOSYSTEM (LES)

Your exam registration fee includes access to the CFA Institute Learning Ecosystem (LES). This digital learning platform provides access to all the curriculum content and practice questions. The LES is organized as a series of learning modules consisting of short online lessons and associated practice questions. This tool is your source for all study materials, including practice questions and mock exams. The LES is the primary method by which CFA Institute delivers your curriculum experience. Here, you will find additional practice questions to test your knowledge, including some interactive questions.

DESIGNING YOUR PERSONAL STUDY PROGRAM

An orderly, systematic approach to exam preparation is critical. You should dedicate a consistent block of time every week to reading and studying. Review the LOS both before and after you study curriculum content to ensure you can demonstrate

the knowledge, skills, and abilities described by the LOS and the assigned learning module. Use the LOS as a self-check to track your progress and highlight areas of weakness for later review.

Successful candidates report an average of more than 300 hours preparing for each exam. Your preparation time will vary based on your prior education and experience, and you will likely spend more time on some topics than on others.

ERRATA

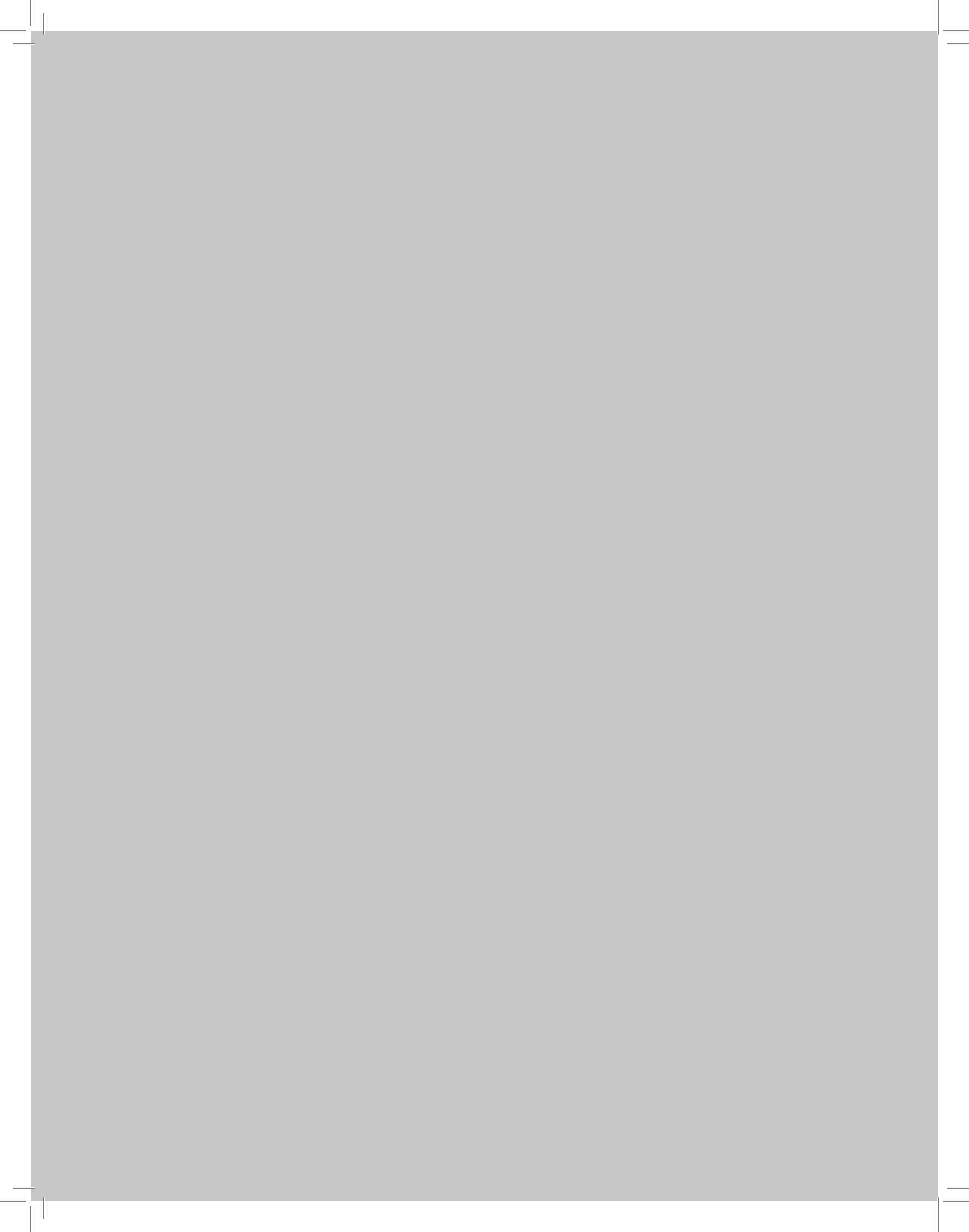
The curriculum development process is rigorous and involves multiple rounds of reviews by content experts. Despite our efforts to produce a curriculum that is free of errors, we must make corrections in some instances. Curriculum errata are periodically updated and posted by exam level and test date on the Curriculum Errata webpage (www.cfainstitute.org/en/programs/submit-errata). If you believe you have found an error in the curriculum, you can submit your concerns through our curriculum errata reporting process found at the bottom of the Curriculum Errata webpage.

OTHER FEEDBACK

Please send any comments or suggestions to info@cfainstitute.org, and we will review your feedback thoughtfully.



Financial Statement Analysis



LEARNING MODULE

1

Intercorporate Investments

by Susan Perry Williams, CPA, CMA, PhD.

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LEARNING OUTCOMES

<i>Mastery</i>	<i>The candidate should be able to:</i>
<input type="checkbox"/>	describe the classification, measurement, and disclosure under International Financial Reporting Standards (IFRS) for 1) investments in financial assets, 2) investments in associates, 3) joint ventures, 4) business combinations, and 5) special purpose and variable interest entities
<input type="checkbox"/>	compare and contrast IFRS and US GAAP in their classification, measurement, and disclosure of investments in financial assets, investments in associates, joint ventures, business combinations, and special purpose and variable interest entities
<input type="checkbox"/>	analyze how different methods used to account for intercorporate investments affect financial statements and ratios

Note: New rulings and/or pronouncements issued after the publication of the readings in financial reporting and analysis may cause some of the information in these readings to become dated. Candidates are expected to be familiar with the overall analytical framework contained in the study session readings, as well as the implications of alternative accounting methods for financial analysis and valuation, as provided in the assigned readings. Candidates are not responsible for changes that occur after the material was written.

1

INTRODUCTION

Intercorporate investments (investments in other companies) can have a significant impact on an investing company's financial performance and position. Companies invest in the debt and equity securities of other companies to diversify their asset base, enter new markets, obtain competitive advantages, deploy excess cash, and achieve additional profitability. Debt securities include commercial paper, corporate and government bonds and notes, redeemable preferred stock, and asset-backed securities. Equity securities include common stock and non-redeemable preferred stock. The percentage of equity ownership a company acquires in an investee depends on the resources available, the ability to acquire the shares, and the desired level of influence or control.

The International Accounting Standards Board (IASB) and the US Financial Accounting Standards Board (FASB) worked to reduce differences in accounting standards that apply to the classification, measurement, and disclosure of intercorporate investments. The resulting standards have improved the relevance, transparency, and comparability of information provided in financial statements.

Complete convergence between IFRS accounting standards and US GAAP did not occur for accounting for financial instruments, and some differences still exist. The terminology used in this reading is IFRS-oriented. US GAAP may not use identical terminology, but in most cases the terminology is similar.

2

BASIC CORPORATE INVESTMENT CATEGORIES

- describe the classification, measurement, and disclosure under International Financial Reporting Standards (IFRS) for 1) investments in financial assets, 2) investments in associates, 3) joint ventures, 4) business combinations, and 5) special purpose and variable interest entities
- compare and contrast IFRS and US GAAP in their classification, measurement, and disclosure of investments in financial assets, investments in associates, joint ventures, business combinations, and special purpose and variable interest entities

In general, investments in marketable debt and equity securities can be categorized as 1) investments in financial assets in which the investor has no significant influence or control over the operations of the investee, 2) investments in associates in which the investor can exert significant influence (but not control) over the investee, 3) joint ventures where control is shared by two or more entities, and 4) business combinations, including investments in subsidiaries, in which the investor obtains a controlling interest over the investee. The distinction between investments in financial assets, investments in associates, and business combinations is based on the degree of influence or control rather than purely on the percent holding. However, lack of influence is generally presumed when the investor holds less than a 20% equity interest, significant influence is generally presumed between 20% and 50%, and control is presumed when the percentage of ownership exceeds 50%.

The following excerpt from Note 2 to the Financial Statements in the 2017 Annual Report of GlaxoSmithKline, a British pharmaceutical and healthcare company, illustrates the categorization and disclosure in practice:

Entities over which the Group has the power to direct the relevant activities so as to affect the returns to the Group, generally through control over the financial and operating policies, are accounted for as subsidiaries.

Where the Group has the ability to exercise joint control over, and rights to the net assets of, entities, the entities are accounted for as joint ventures. Where the Group has the ability to exercise joint control over an arrangement, but has rights to specified assets and obligations for specified liabilities of the arrangement, the arrangement is accounted for as a joint operation. Where the Group has the ability to exercise significant influence over entities, they are accounted for as associates. The results and assets and liabilities of associates and joint ventures are incorporated into the consolidated financial statements using the equity method of accounting. The Group's rights to assets, liabilities, revenue and expenses of joint operations are included in the consolidated financial statements in accordance with those rights and obligations.

A summary of the financial reporting and relevant standards for various types of corporate investment is presented in Exhibit 1 (the headings in Exhibit 1 use the terminology of IFRS; US GAAP categorizes intercorporate investments similarly but not identically). The reader should be alert to the fact that value measurement and/or the treatment of changes in value can vary depending on the classification and whether IFRS or US GAAP is used. The alternative treatments are discussed in greater depth later in this reading.

Exhibit 1: Summary of Accounting Treatments for Investments

	In Financial Assets	In Associates	Business Combinations	In Joint Ventures
Influence	Not significant	Significant	Controlling	Shared control
Typical percentage interest	Usually < 20%	Usually 20% to 50%	Usually > 50% or other indications of control	
US GAAP ^b	FASB ASC Topic 320	FASB ASC Topic 323	FASB ASC Topics 805 and 810	FASB ASC Topic 323
Financial Reporting	Classified as: <ul style="list-style-type: none"> ▪ Fair value through profit or loss ▪ Fair value through other comprehensive income ▪ Amortized cost 	Equity method	Consolidation	IFRS: Equity method
Applicable IFRS ^a	IFRS 9	IAS 28	IAS 27 IFRS 3 IFRS 10	IFRS 11 IFRS 12 IAS 28
US GAAP ^b	FASB ASC Topic 320	FASB ASC Topic 323	FASB ASC Topics 805 and 810	FASB ASC Topic 323

^a IFRS 9 *Financial Instruments*; IAS 28 *Investments in Associates*; IAS 27 *Separate Financial Statements*; IFRS 3 *Business Combinations*; IFRS 10 *Consolidated Financial Statements*; IFRS 11 *Joint Arrangements*; IFRS 12, *Disclosure of Interests in Other Entities*.

^b FASB ASC Topic 320 [*Investments—Debt and Equity Securities*]; FASB ASC Topic 323 [*Investments—Equity Method and Joint Ventures*]; FASB ASC Topics 805 [*Business Combinations*] and 810 [*Consolidations*].

3

INVESTMENTS IN FINANCIAL ASSETS: IFRS 9

- describe the classification, measurement, and disclosure under International Financial Reporting Standards (IFRS) for 1) investments in financial assets, 2) investments in associates, 3) joint ventures, 4) business combinations, and 5) special purpose and variable interest entities
- compare and contrast IFRS and US GAAP in their classification, measurement, and disclosure of investments in financial assets, investments in associates, joint ventures, business combinations, and special purpose and variable interest entities

Both IASB and FASB developed revised standards for financial investments. The IASB issued the first phase of their project dealing with classification and measurement of financial instruments by including relevant chapters in IFRS 9, *Financial Instruments*. IFRS 9, which replaces IAS 39, became effective for annual periods on 1 January 2018. The FASB's guidance relating to the accounting for investments in financial instruments is contained in ASC 825, *Financial Instruments*, which has been updated several times, with the standard being effective for periods after 15 December 2017. The resulting US GAAP guidance has many consistencies with IFRS requirements, but there are also some differences.

IFRS 9 is based on an approach that considers the contractual characteristics of cash flows as well as the management of the financial assets. The portfolio approach of the previous standard (i.e., designation of held for trading, available-for-sale, and held-to-maturity) is no longer appropriate, and the terms *available-for-sale* and *held-to-maturity* no longer appear in IFRS 9. Another key change in IFRS 9, compared with IAS 39, relates to the approach to loan impairment. In particular, companies are required to migrate from an incurred loss model to an expected credit loss model. This results in companies evaluating not only historical and current information about loan performance, but also forward-looking information.¹

The criteria for using amortized cost are similar to those of the IAS 39 "management intent to hold-to-maturity" classification. Specifically, to be measured at amortized cost, financial assets must meet two criteria:²

1. A business model test:³ The financial assets are being held to collect contractual cash flows; and

¹ Under US GAAP, requirements for assessing credit impairment are included in ASC 326, which is effective for most public companies beginning January 1, 2020.

² IFRS 9, paragraph 4.1.2.

³ A business model refers to how an entity manages its financial assets in order to generate cash flows – by collecting contractual cash flows, selling financial assets or both. (IFRS 9 *Financial Instruments*, Project Summary, July 2014)

2. A cash flow characteristic test: The contractual cash flows are solely payments of principal and interest on principal.

Classification and Measurement

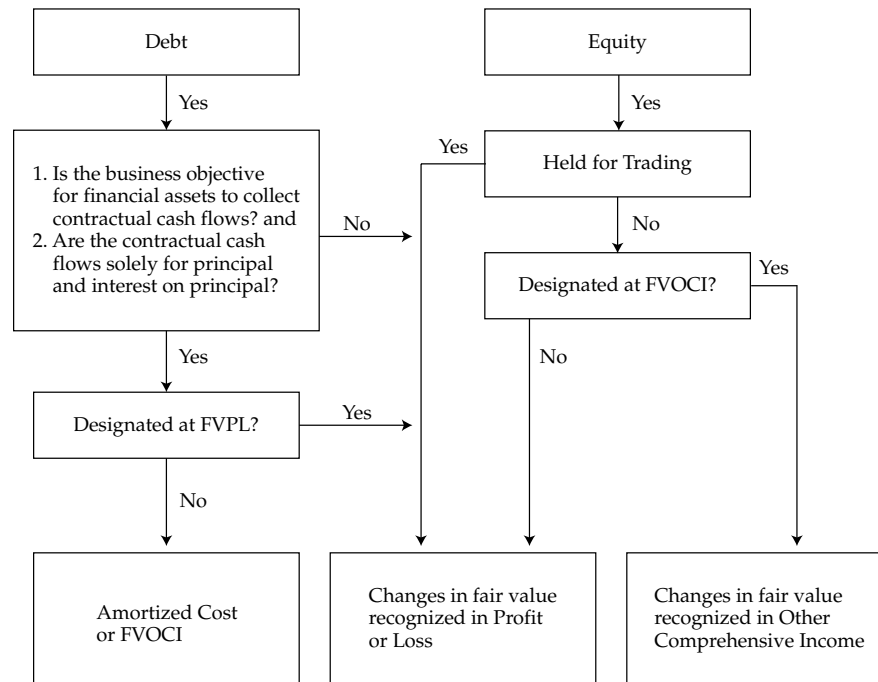
IFRS 9 divides all financial assets into two classifications—those measured at amortized cost and those measured at fair value. Under this approach, there are three different categories of measurement:

- Amortised cost
- Fair value through profit or loss (FVPL) or
- Fair Value through Other comprehensive income (FVOCI).

All financial assets are measured at fair value when initially acquired (which will generally be equal to the cost basis on the date of acquisition). Subsequently, financial assets are measured at either fair value or amortized cost. Financial assets that meet the two criteria above are generally measured at amortized cost. If the financial asset meets the criteria above but may be sold, a “hold-to-collect and sell” business model, it may be measured at fair value through other comprehensive income (FVOCI). However, management may choose the “fair value through profit or loss” (FVPL) option to avoid an accounting mismatch.⁴ An “accounting mismatch” refers to an inconsistency resulting from different measurement bases for assets and liabilities, i.e., some are measured at amortized cost and some at fair value. Debt instruments are measured at amortized cost, fair value through other comprehensive income (FVOCI), or fair value through profit or loss (FVPL) depending upon the business model.

Equity instruments are measured at FVPL or at FVOCI; they are not eligible for measurement at amortized cost. Equity investments held-for-trading must be measured at FVPL. Other equity investments can be measured at FVPL or FVOCI; however, the choice is irrevocable. If the entity uses the FVOCI option, only the dividend income is recognized in profit or loss. Furthermore, the requirements for reclassifying gains or losses recognized in other comprehensive income are different for debt and equity instruments.

⁴ IFRS 9, paragraph 4.1.5.

Exhibit 2: Financial Assets Classification and Measurement Model, IFRS 9

Financial assets that are derivatives are measured at fair value through profit or loss (except for hedging instruments). Embedded derivatives are not separated from the hybrid contract if the asset falls within the scope of this standard and the asset as a whole is measured at FVPL.

Exhibit 3 contains an excerpt from the 2017 Deutsche Bank financial statements that describes how financial assets and financial liabilities are determined, measured, and recognized on its financial statements.

Exhibit 3: Excerpt from Deutsche Bank's 2017 Financial Statements**Financial Assets**

IFRS 9 requires that an entity's business model and a financial instrument's contractual cash flows will determine its classification and measurement in the financial statements. Upon initial recognition each financial asset will be classified as either fair value through profit or loss ('FVTPL'), amortized cost, or fair value through Other Comprehensive Income ('FVOCI'). As the requirements under IFRS 9 are different than the assessments under the existing IAS 39 rules, there will be some differences from the classification and measurement of financial assets under IAS 39, including whether to elect the fair value option on certain assets. The classification and measurement of financial liabilities remain largely unchanged under IFRS 9 from current requirements.

In 2015, the Group made an initial determination of business models and assessed the contractual cash flow characteristics of the financial assets within such business models to determine the potential classification and measurement changes as a result of IFRS 9. As a result of the initial analysis performed, in 2016 the Group identified a population of financial assets which are to be measured at either amortized cost or fair value through other comprehensive income, which will be subject to the IFRS 9 impairment rules. In 2017, the Group updated its

business model assessments and completed outstanding classification decisions. On initial recognition of an equity investment not held for trading, the Group may on an investment-by-investment basis, irrevocably elect to present subsequent fair value changes in OCI. The Group has not made any such elections. Where issued debt liabilities are designated at fair value, the fair value movements attributable to an entity's own credit risk will be recognized in Other Comprehensive Income rather than in the Statement of Income. The standard also allows the Group the option to elect to apply early the presentation of fair value movements of an entity's credit risk in Other Comprehensive Income prior to adopting IFRS 9 in full. The Group did not early adopt this requirement

Reclassification of Investments

Under IFRS 9, the reclassification of equity instruments is not permitted because an entity's initial classification of FVPL and FVOCI is irrevocable. Reclassification of debt instruments is only permitted if the business model for the financial assets (objective for holding the financial assets) has changed in a way that significantly affects operations. Changes to the business model will require judgment and are expected to be very infrequent.

When reclassification is deemed appropriate, there is no restatement of prior periods at the reclassification date. For example, if the financial asset is reclassified from amortized cost to FVPL, the asset is then measured at fair value with any gain or loss immediately recognized in profit or loss. If the financial asset is reclassified from FVPL to amortized cost, the fair value at the reclassification date becomes the carrying amount.

In summary, the major changes made by IFRS 9 are:

- A business model approach to classification of debt instruments.
- Three classifications for financial assets:
 - Fair value through profit or loss (FVPL),
 - fair value through other comprehensive income (FVOCI), and
 - amortized cost.
- Reclassifications of debt instruments are permitted only when the business model changes. The choice to measure equity investments at FVOCI or FVPL is irrevocable.
- A redesign of the provisioning models for financial assets, financial guarantees, loan commitments, and lease receivables. The new standard moves the recognition criteria from an "incurred loss" model to an "expected loss" model. Under the new criteria, there is an earlier recognition of impairment—12 month expected losses for performing assets and lifetime expected losses for non-performing assets, to be captured upfront.⁵

Analysts typically evaluate performance separately for operating and investing activities. Analysis of operating performance should exclude items related to investing activities such as interest income, dividends, and realized and unrealized gains and losses. For comparative purposes, analysts should exclude non-operating assets in the determination of return on net operating assets. IFRS and US GAAP⁶ require

⁵ IFRS 9, paragraphs 5.5.4, 5.5.5, 5.5.15, 5.5.16.

⁶ IFRS 7 Financial Instruments: Disclosures and FASB ASC Section 320-10-50 [Investments—Debt and Equity Securities—Overall—Disclosure].

disclosure of fair value of each class of investment in financial assets. Using market values and adjusting pro forma financial statements for consistency improves assessments of performance ratios across companies.

4

INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

- describe the classification, measurement, and disclosure under International Financial Reporting Standards (IFRS) for 1) investments in financial assets, 2) investments in associates, 3) joint ventures, 4) business combinations, and 5) special purpose and variable interest entities
- compare and contrast IFRS and US GAAP in their classification, measurement, and disclosure of investments in financial assets, investments in associates, joint ventures, business combinations, and special purpose and variable interest entities
- analyze how different methods used to account for intercorporate investments affect financial statements and ratios

Under both IFRS and US GAAP, when a company (investor) holds 20 to 50% of the voting rights of an associate (investee), either directly or indirectly (i.e., through subsidiaries), it is presumed that the company has (or can exercise) significant influence, but not control, over the investee's business activities.⁷ Conversely, if the investor holds, directly or indirectly, less than 20% of the voting power of the associate (investee), it is presumed that the investor cannot exercise significant influence, unless such influence can be demonstrated. IAS 28 (IFRS) and FASB ASC Topic 323 (US GAAP) apply to most investments in which an investor has significant influence; they also provide guidance on accounting for investments in associates using the equity method.⁸ These standards note that significant influence may be evidenced by

- representation on the board of directors;
- participation in the policy-making process;
- material transactions between the investor and the investee;
- interchange of managerial personnel; or
- technological dependency.

The ability to exert significant influence means that the financial and operating performance of the investee is partly influenced by management decisions and operational skills of the investor. The equity method of accounting for the investment reflects the economic reality of this relationship and provides a more objective basis for reporting investment income.

⁷ The determination of significant influence under IFRS also includes currently exercisable or convertible warrants, call options, or convertible securities that the investor owns, which give it additional voting power or reduce another party's voting power over the financial and operating policies of the investee. Under US GAAP, the determination of an investor's voting stock interest is based only on the voting shares outstanding at the time of the purchase. The existence and effect of securities with potential voting rights are not considered.

⁸ IAS 28 Investments in Associates and Joint Ventures and FASB ASC Topic 323 [Investments—Equity Method and Joint Ventures].

Joint ventures—ventures undertaken and controlled by two or more parties—can be a convenient way to enter foreign markets, conduct specialized activities, and engage in risky projects. They can be organized in a variety of different forms and structures. Some joint ventures are primarily contractual relationships, whereas others have common ownership of assets. They can be partnerships, limited liability companies (corporations), or other legal forms (unincorporated associations, for example). IFRS identify the following common characteristics of joint ventures: 1) A contractual arrangement exists between two or more venturers, and 2) the contractual arrangement establishes joint control. Both IFRS and US GAAP⁹ require the equity method of accounting for joint ventures.¹⁰

Only under rare circumstances will joint ventures be allowed to use proportionate consolidation under IFRS and US GAAP. On the venturer's financial statements, proportionate consolidation requires the venturer's share of the assets, liabilities, income, and expenses of the joint venture to be combined or shown on a line-by-line basis with similar items under its sole control. In contrast, the equity method results in a single line item (equity in income of the joint venture) on the income statement and a single line item (investment in joint venture) on the balance sheet.

Because the single line item on the income statement under the equity method reflects the net effect of the sales and expenses of the joint venture, the total income recognized is identical under the two methods. In addition, because the single line item on the balance sheet (investment in joint venture) under the equity method reflects the investors' share of the net assets of the joint venture, the total net assets of the investor is identical under both methods. There can be significant differences, however, in ratio analysis between the two methods because of the differential effects on values for total assets, liabilities, sales, expenses, etc.

Equity Method of Accounting: Basic Principles

Under the equity method of accounting, the equity investment is initially recorded on the investor's balance sheet at cost. In subsequent periods, the carrying amount of the investment is adjusted to recognize the investor's proportionate share of the investee's earnings or losses, and these earnings or losses are reported in income. Dividends or other distributions received from the investee are treated as a return of capital and reduce the carrying amount of the investment and are not reported in the investor's profit or loss. The equity method is often referred to as "one-line consolidation" because the investor's proportionate ownership interest in the assets and liabilities of the investee is disclosed as a single line item (net assets) on its balance sheet, and the investor's share of the revenues and expenses of the investee is disclosed as a single line item on its income statement. (Contrast these disclosures with the disclosures on consolidated statements in Section 6.) Equity method investments are classified as non-current assets on the balance sheet. The investor's share of the profit or loss of equity method investments, and the carrying amount of those investments, must be separately disclosed on the income statement and balance sheet.

⁹ Under US GAAP, ASC 323-10 provides guidance on the application of the equity method of accounting.

¹⁰ IFRS 11, Joint Arrangements classifies joint arrangements as either a joint operation or a joint venture. Joint ventures are arrangements wherein parties with joint control have rights to the net assets of the arrangement. Joint ventures are required to use equity method under IAS 28.

EXAMPLE 1**Equity Method: Balance in Investment Account**

1. Branch (a fictitious company) purchases a 20% interest in Williams (a fictitious company) for €200,000 on 1 January 2016. Williams reports income and dividends as follows:

	Income	Dividends
2016	€200,000	€50,000
2017	300,000	100,000
2018	400,000	200,000
	€900,000	€350,000

Calculate the investment in Williams that appears on Branch's balance sheet as of the end of 2018.

Solution:

Investment in Williams at 31 December 2018:

Initial cost	€200,000	
Equity income 2016	€40,000	= (20% of €200,000 Income)
Dividends received 2016	(€10,000)	= (20% of €50,000 Dividends)
Equity income 2017	€60,000	= (20% of €300,000 Income)
Dividends received 2017	(€20,000)	= (20% of €100,000 Dividends)
Equity income 2018	€80,000	= (20% of €400,000 Income)
Dividends received 2018	(€40,000)	= (20% of €200,000 Dividends)
Balance-Equity Investment	€310,000	= [€200,000 + 20% × (€900,000 - €350,000)]

This simple example implicitly assumes that the purchase price equals the purchased equity (20%) in the book value of Williams' net assets.

Using the equity method, the investor includes its share of the investee's profit and losses on the income statement. The equity investment is carried at cost, plus its share of post-acquisition income, less dividends received. The recorded investment value can decline as a result of investee losses or a permanent decline in the investee's market value. If the investment value is reduced to zero, the investor usually discontinues the equity method and does not record further losses. If the investee subsequently reports profits, the equity method is resumed after the investor's share of the profits equals the share of losses not recognized during the suspension of the equity method. Exhibit 4 contains excerpts from Deutsche Bank's 2017 annual report that describes its accounting treatment for investments in associates.

Exhibit 4: Excerpt from Deutsche Bank 2017 Annual Report**[From Note 01] ASSOCIATES**

An associate is an entity in which the Group has significant influence, but not a controlling interest, over the operating and financial management policy decisions of the entity. Significant influence is generally presumed when the Group holds between 20 % and 50 % of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered in assessing whether the Group has significant influence. Among the other factors that are considered in determining whether the Group has significant influence are representation on the board of directors (supervisory board in the case of German stock corporations) and material intercompany transactions. The existence of these factors could require the application of the equity method of accounting for a particular investment even though the Group's investment is less than 20 % of the voting stock.

Investments in associates are accounted for under the equity method of accounting. The Group's share of the results of associates is adjusted to conform to the accounting policies of the Group and is reported in the Consolidated Statement of Income as Net income (loss) from equity method investments. The Group's share in the associate's profits and losses resulting from intercompany sales is eliminated on consolidation.

If the Group previously held an equity interest in an entity (for example, as available for sale) and subsequently gained significant influence, the previously held equity interest is remeasured to fair value and any gain or loss is recognized in the Consolidated Statement of Income. Any amounts previously recognized in other comprehensive income associated with the equity interest would be reclassified to the Consolidated Statement of Income at the date the Group gains significant influence, as if the Group had disposed of the previously held equity interest.

Under the equity method of accounting, the Group's investments in associates and jointly controlled entities are initially recorded at cost including any directly related transaction costs incurred in acquiring the associate, and subsequently increased (or decreased) to reflect both the Group's pro-rata share of the post-acquisition net income (or loss) of the associate or jointly controlled entity and other movements included directly in the equity of the associate or jointly controlled entity. Goodwill arising on the acquisition of an associate or a jointly controlled entity is included in the carrying value of the investment (net of any accumulated impairment loss). As goodwill is not reported separately it is not specifically tested for impairment. Rather, the entire equity method investment is tested for impairment at each balance sheet date.

If there is objective evidence of impairment, an impairment test is performed by comparing the investment's recoverable amount, which is the higher of its value in use and fair value less costs to sell, with its carrying amount. An impairment loss recognized in prior periods is only reversed if there has been a change in the estimates used to determine the investment's recoverable amount since the last impairment loss was recognized. If this is the case the carrying amount of the investment is increased to its higher recoverable amount. The increased carrying amount of the investment in associate attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined had no impairment loss been recognized for the investment in prior years.

At the date that the Group ceases to have significant influence over the associate or jointly controlled entity the Group recognizes a gain or loss on the disposal of the equity method investment equal to the difference between the sum

of the fair value of any retained investment and the proceeds from disposing of the associate and the carrying amount of the investment. Amounts recognized in prior periods in other comprehensive income in relation to the associate are accounted for on the same basis as would have been required if the investee had directly disposed of the related assets or liabilities.

[From Note 17] EQUITY METHOD INVESTMENTS

Investments in associates and jointly controlled entities are accounted for using the equity method of accounting.

The Group holds interests in 77 (2016: 92) associates and 13 (2016: 14) jointly controlled entities. There are no individually material investments in associates and joint ventures.

Aggregated financial information on the Group's share in associates and joint ventures that are individually immaterial (in €m)	Dec 31, 2017	Dec 31, 2016
Carrying amount of all associated that are individually immaterial to the Group	866	1,027
Aggregated amount of the Group's share of profit (loss) from continuing operations	141	183
Aggregated amount of the Group's share of post-tax profit (loss) from discontinued operations	0	0
Aggregated amount of the Group's share of other comprehensive income	(36)	11
Aggregated amount of the Group's share of total comprehensive income	105	194

It is interesting to note the explanations for the treatment of associates when the ownership percentage is less than 20% or is greater than 50%. The equity method reflects the strength of the relationship between the investor and its associates. In the instances where the percentage ownership is less than 20%, Deutsche Bank uses the equity method because it has significant influence over these associates' operating and financial policies either through its representation on their boards of directors and/or other measures. The equity method provides a more objective basis for reporting investment income than the accounting treatment for investments in financial assets because the investor can potentially influence the timing of dividend distributions.

AMORTIZATION OF EXCESS PURCHASE PRICE, FAIR VALUE OPTION, AND IMPAIRMENT

5

- describe the classification, measurement, and disclosure under International Financial Reporting Standards (IFRS) for 1) investments in financial assets, 2) investments in associates, 3) joint ventures, 4) business combinations, and 5) special purpose and variable interest entities
- compare and contrast IFRS and US GAAP in their classification, measurement, and disclosure of investments in financial assets, investments in associates, joint ventures, business combinations, and special purpose and variable interest entities

The cost (purchase price) to acquire shares of an investee is often greater than the book value of those shares. This is because, among other things, many of the investee's assets and liabilities reflect historical cost rather than fair value. IFRS allow a company to measure its property, plant, and equipment using either historical cost or fair value (less accumulated depreciation).¹¹ US GAAP, however, require the use of historical cost (less accumulated depreciation) to measure property, plant, and equipment.¹²

When the cost of the investment exceeds the investor's proportionate share of the book value of the investee's (associate's) net identifiable tangible and intangible assets (e.g., inventory, property, plant and equipment, trademarks, patents), the difference is first allocated to specific assets (or categories of assets) using fair values. These differences are then amortized to the investor's proportionate share of the investee's profit or loss over the economic lives of the assets whose fair values exceeded book values. It should be noted that the allocation is not recorded formally; what appears initially in the investment account on the balance sheet of the investor is the cost. Over time, as the differences are amortized, the balance in the investment account will come closer to representing the ownership percentage of the book value of the net assets of the associate.

IFRS and US GAAP both treat the difference between the cost of the acquisition and investor's share of the fair value of the net identifiable assets as goodwill. Therefore, any remaining difference between the acquisition cost and the fair value of net identifiable assets that cannot be allocated to specific assets is treated as goodwill and is not amortized. Instead, it is reviewed for impairment on a regular basis, and written down for any identified impairment. Goodwill, however, is included in the carrying amount of the investment, because investment is reported as a single line item on the investor's balance sheet.¹³

¹¹ After initial recognition, an entity can choose to use either a cost model or a revaluation model to measure its property, plant, and equipment. Under the revaluation model, property, plant, and equipment whose fair value can be measured reliably can be carried at a revalued amount. This revalued amount is its fair value at the date of the revaluation less any subsequent accumulated depreciation

¹² Successful companies should be able to generate, through the productive use of assets, economic value in excess of the resale value of the assets themselves. Therefore, investors may be willing to pay a premium in anticipation of future benefits. These benefits could be a result of general market conditions, the investor's ability to exert significant influence on the investee, or other synergies.

¹³ If the investor's share of the fair value of the associate's net assets (identifiable assets, liabilities, and contingent liabilities) is greater than the cost of the investment, the difference is excluded from the carrying amount of the investment and instead included as income in the determination of the investor's share of the associate's profit or loss in the period in which the investment is acquired.

EXAMPLE 2**Equity Method Investment in Excess of Book Value**

1. Blake Co. and Brown Co. are two hypothetical companies. Assume that Blake Co. acquires 30% of the outstanding shares of Brown Co. At the acquisition date, book values and fair values of Brown's recorded assets and liabilities are as follows:

	Book Value	Fair Value
Current assets	€10,000	€10,000
Plant and equipment	190,000	220,000
Land	120,000	140,000
	€320,000	€370,000
Liabilities	100,000	100,000
Net assets	€220,000	€270,000

Blake Co. believes the value of Brown Co. is higher than the book value of its identifiable net assets. They offer €100,000 for a 30% interest in Brown, which represents a €34,000 excess purchase price. The difference between the fair value and book value of the net identifiable assets is €50,000 (€270,000 – 220,000). Based on Blake Co.'s 30% ownership, €15,000 of the excess purchase price is attributable to the net identifiable assets, and the residual is attributable to goodwill. Calculate goodwill.

Solution:

Purchase price	€100,000
30% of book value of Brown (30% × €220,000)	66,000
Excess purchase price	€34,000
Attributable to net assets	
Plant and equipment (30% × €30,000)	€9,000
Land (30% × €20,000)	6,000
Goodwill (residual)	19,000
	€34,000

As illustrated above, goodwill is the residual excess not allocated to identifiable assets or liabilities. The investment is carried as a non-current asset on the Blake's book as a single line item (Investment in Brown, €100,000) on the acquisition date.

Amortization of Excess Purchase Price

The excess purchase price allocated to the assets and liabilities is accounted for in a manner that is consistent with the accounting treatment for the specific asset or liability to which it is assigned. Amounts allocated to assets and liabilities that are expensed (such as inventory) or periodically depreciated or amortized (plant, property, and intangible assets) must be treated in a similar manner. These allocated amounts are

not reflected on the financial statements of the investee (associate), and the investee's income statement will not reflect the necessary periodic adjustments. Therefore, the investor must directly record these adjustment effects by reducing the carrying amount of the investment on its balance sheet and by reducing the investee's profit recognized on its income statement. Amounts allocated to assets or liabilities that are not systematically amortized (e.g., land) will continue to be reported at their fair value as of the date the investment was acquired. As stated above, goodwill is included in the carrying amount of the investment instead of being separately recognized. It is not amortized because it is considered to have an indefinite life.

Using the example above and assuming a 10-year useful life for plant, property, and equipment and using straight-line depreciation, the annual amortization is as follows:

Account	Excess Price (€)	Useful Life	Amortization/Year (€)
Plant and equipment	9,000	10 years	900
Land	6,000	Indefinite	0
Goodwill	19,000	Indefinite	0

Annual amortization would reduce the investor's share of the investee's reported income (equity income) and the balance in the investment account by €900 for each year over the 10-year period.

EXAMPLE 3

Equity Method Investments with Goodwill

On 1 January 2018, Parker Company acquired 30% of Prince Inc. common shares for the cash price of €500,000 (both companies are fictitious). It is determined that Parker has the ability to exert significant influence on Prince's financial and operating decisions. The following information concerning Prince's assets and liabilities on 1 January 2018 is provided:

Prince, Inc.			
	Book Value	Fair Value	Difference
Current assets	€100,000	€100,000	€0
Plant and equipment	1,900,000	2,200,000	300,000
	€2,000,000	€2,300,000	€300,000
Liabilities	800,000	800,000	0
Net assets	€1,200,000	€1,500,000	€300,000

The plant and equipment are depreciated on a straight-line basis and have 10 years of remaining life. Prince reports net income for 2018 of €100,000 and pays dividends of €50,000. Calculate the following:

1. Goodwill included in the purchase price.

Solution:

Purchase price	€500,000
Acquired equity in book value of Prince's net assets (30% × €1,200,000)	360,000
Excess purchase price	€140,000
Attributable to plant and equipment (30% × €300,000)	(90,000)

Goodwill (residual)	€50,000
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2. Investment in associate (Prince) at the end of 2018.

Solution:

Investment in associate

Purchase price	€500,000
Parker's share of Prince's net income (30% × €100,000)	30,000
Dividends received (30% of €50,000)	(15,000)
Amortization of excess purchase price attributable to plant and equipment (€90,000 ÷ 10 years)	(9,000)
31 December 2018 balance in investment in Prince	€506,000

An alternate way to look at the balance in the investment account is that it reflects the basic valuation principle of the equity method. At any point in time, the investment account balance equals the investor's (Parker) proportionate share of the net equity (net assets at book value) of the investee (Prince) plus the unamortized balance of the original excess purchase price. Applying this principle to this example:

2018 Beginning net assets =	€1,200,000
Plus: Net income	100,000
Less: Dividends	(50,000)
2018 Ending net assets	€1,250,000
Parker's proportionate share of Prince's recorded net assets (30% × €1,250,000)	€375,000
Unamortized excess purchase price (€140,000 – 9,000)	131,000
Investment in Prince	€506,000

Note that the unamortized excess purchase price is a cost incurred by Parker, not Prince. Therefore, the total amount is included in the investment account balance.

Fair Value Option

Both IFRS and US GAAP give the investor the option to account for their equity method investment at fair value.¹⁴ Under US GAAP, this option is available to all entities; however, under IFRS, its use is restricted to venture capital organizations, mutual funds, unit trusts, and similar entities, including investment-linked insurance funds.

Both standards require that the election to use the fair value option occur at the time of initial recognition and is irrevocable. Subsequent to initial recognition, the investment is reported at fair value with unrealized gains and losses arising from changes in fair value as well as any interest and dividends received included in the investor's profit or loss (income). Under the fair value method, the investment account

¹⁴ IFRS 9 Financial Instruments. FASB ASC Section 825-10-25 [Financial Instruments—Overall—Recognition].

on the investor's balance sheet does not reflect the investor's proportionate share of the investee's profit or loss, dividends, or other distributions. In addition, the excess of cost over the fair value of the investee's identifiable net assets is not amortized, nor is goodwill created.

Impairment

Both IFRS and US GAAP require periodic reviews of equity method investments for impairment. If the fair value of the investment is below its carrying value and this decline is deemed to be other than temporary, an impairment loss must be recognized.

Under IFRS, there must be objective evidence of impairment as a result of one or more (loss) events that occurred after the initial recognition of the investment, and that loss event has an impact on the investment's future cash flows, which can be reliably estimated. Because goodwill is included in the carrying amount of the investment and is not separately recognized, it is not separately tested for impairment. Instead, the entire carrying amount of the investment is tested for impairment by comparing its recoverable amount with its carrying amount.¹⁵ The impairment loss is recognized on the income statement, and the carrying amount of the investment on the balance sheet is either reduced directly or through the use of an allowance account.

US GAAP takes a different approach. If the fair value of the investment declines below its carrying value *and* the decline is determined to be permanent, US GAAP¹⁶ requires an impairment loss to be recognized on the income statement and the carrying value of the investment on the balance sheet is reduced to its fair value.

US GAAP prohibits the reversal of impairment losses even if the fair value later increases. However, IFRS permits the reversal of a previous impairment loss, in line with IAS 36, to the extent that the recoverable amount of the net investment subsequently increases.

Section 6 of this reading discusses impairment tests for the goodwill attributed to a controlling investment (consolidated subsidiary). Note the distinction between the disaggregated goodwill impairment test for consolidated statements and the impairment test of the total fair value of equity method investments.

TRANSACTIONS WITH ASSOCIATES AND DISCLOSURE

6

- describe the classification, measurement, and disclosure under International Financial Reporting Standards (IFRS) for 1) investments in financial assets, 2) investments in associates, 3) joint ventures, 4) business combinations, and 5) special purpose and variable interest entities
- compare and contrast IFRS and US GAAP in their classification, measurement, and disclosure of investments in financial assets, investments in associates, joint ventures, business combinations, and special purpose and variable interest entities

¹⁵ Recoverable amount is the higher of "value in use" or net selling price. Value in use is equal to the present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. Net selling price is equal to fair value less cost to sell.

¹⁶ FASB ASC Section 323-10-35 [Investments—Equity Method and Joint Ventures—Overall—Subsequent Measurement].

Because an investor company can influence the terms and timing of transactions with its associates, profits from such transactions cannot be realized until confirmed through use or sale to third parties. Accordingly, the investor company's share of any unrealized profit must be deferred by reducing the amount recorded under the equity method. In the subsequent period(s) when this deferred profit is considered confirmed, it is added to the equity income. At that time, the equity income is again based on the recorded values in the associate's accounts.

Transactions between the two affiliates may be **upstream** (associate to investor) or **downstream** (investor to associate). In an upstream sale, the profit on the inter-company transaction is recorded on the associate's income (profit or loss) statement. The investor's share of the unrealized profit is thus included in equity income on the investor's income statement. In a downstream sale, the profit is recorded on the investor's income statement. Both IFRS and US GAAP require that the unearned profits be eliminated to the extent of the investor's interest in the associate.¹⁷ The result is an adjustment to equity income on the investor's income statement.

EXAMPLE 4

Equity Method with Sale of Inventory: Upstream Sale

On 1 January 2018, Wicker Company acquired a 25% interest in Foxworth Company (both companies are fictitious) for €1,000,000 and used the equity method to account for its investment. The book value of Foxworth's net assets on that date was €3,800,000. An analysis of fair values revealed that all fair values of assets and liabilities were equal to book values except for a building. The building was undervalued by €40,000 and has a 20-year remaining life. The company used straight-line depreciation for the building. Foxworth paid €3,200 in dividends in 2018. During 2018, Foxworth reported net income of €20,000. During the year, Foxworth sold inventory to Wicker. At the end of the year, there was €8,000 profit from the upstream sale in Foxworth's net income. The inventory sold to Wicker by Foxworth had not been sold to an outside party.

1. Calculate the equity income to be reported as a line item on Wicker's 2018 income statement.

Solution:

Equity Income

Wicker's share of Foxworth's reported income (25% × €20,000)	€5,000
Amortization of excess purchase price attributable to building, (€10,000 ÷ 20)	(500)
Unrealized profit (25% × €8,000)	(2,000)
Equity income 2018	€2,500

¹⁷ IAS 28 Investments in Associates and Joint Ventures; FASB ASC Topic 323 [Investments—Equity Method and Joint Ventures].