FINANCIAL ACCOUNTING Readings for Students Using First or Fourth Edition of the Text

The financial accounting course covers the two major general accounting systems: IFRS and U.S. GAAP. It emphasizes analysis and interpretation of financial statements, insurance contracts, and financial investments.

GAAP developed over the past eighty years, with a mix of general accounting and industry-specific rules. IFRS is a more recent, principles-based system, seeking a single, coherent structure for all industries.

Over 100 countries now use IFRS, including all of Europe and most of Asia. General accounting in the U.S. is based partly on traditional GAAP (Statements of Financial Accounting Standards) and partly on International Financial Reporting Standards (IFRS).

International Financial Statement Analysis (CFA Institute Investment Series), 3rd Edition, by Thomas Robinson, Elaine Henry, Wendy Pirie, and Michael Broihahn (Wiley, 2015) is the primary reading for the first 20 modules of the on-line course. The last four modules cover insurance and reinsurance contracts (SFAS 60, SFAS 113, and IFRS 17), with readings from the FASB and the IASB, and explanations by NEAS.

You may use any edition of this textbook. The third (2015) and fourth (2020) editions are the most up to date; if you buy your own version of the textbook, choose one of these editions. A PDF version of the first edition is on the NEAS discussion forum and satisfies all the needs of this course. Practice problems with worked out solutions for all the final exam questions are also on the NEAS discussion forum, especially in the “final exam” thread, so you will be fully prepared for the final exam regardless which edition you use.

- The black type in this posting refers to the 2015 third edition.
- The *blue* type in this posting refers to the *2020* fourth edition.
- The *red* in this posting refers to the *2009* first edition.

The “readings” posts in each module specify the material from the 2015 third edition. This post notes any changes for the *2020* fourth edition and the *2009* first edition. The one section not covered in the *2009* first edition is explained on the NEAS discussion forum.

The CFA examination textbook has methodical review of the accounting process and extensive illustrations.. Actuarial candidates, like their CFA counterparts, are often unfamiliar with the language of double-entry book-keeping and the articulation of the financial statements.

Robinson’s textbook is used for the CFA exam on financial accounting and analysis. Each chapter explains the GAAP and IFRS principles and standards, but the discussion is not limited to accounting rules. Rather, the statements are analyzed to value the firm and to understand its business strategy. Actuaries have similar needs as financial analysts; even actuarial-specific tasks, such as loss reserve adequacy, are insurance variants of the income statement analysis that Robinson presents.

The CFA textbook explains the accounting principles. The course module apply the principles to actuarial work, using insurance and investment examples. For example, the textbook explains how deferred taxes differ from current taxes, and the actuarial applications show how deferred policy acquisition costs, risk margins for unpaid losses, contractual service margins, and loss reserve valuation affects the deferred tax assets and liabilities on the balance sheet and the deferred tax expense on the income statement.

The first 20 modules of the NEAS course cover the financial statements (balance sheet, income statement, statement of changes in equity, cash flow statement), accrual accounting vs cash accounting (especially for long-term contracts with unclear income recognition dates), double-entry book-keeping, ledger entries vs year-end balancing entries, the conceptual framework (elements of financial statements, qualitative attributes), measurement systems (fair value and remeasurement vs historical cost with initial assumptions), operating vs extraordinary items; revenue and expenses vs gains and losses, and presentation of the income statement and the cash flow statement. The CFA textbook explains even minor GAAP vs IFRS differences, though the NEAS final exam questions focus on the accounting principles, not formatting details.

For example, the textbook shows how cash flows combine with changes in non-cash assets or liabilities on the balance sheet to give income statement entries: sales revenue on the income statement equals the cash received from customers plus the change in accounts receivable (an asset on the balance sheet) minus the change in unearned fees (a liability on the balance sheet). The NEAS module reading provides the insurance analogue: earned premium equals written premium plus the change in earned but unbilled (audit) premium minus the change in the unearned premium reserve. The modules explain the similar equations for incurred losses, acquisition expenses, accrued interest, and income taxes.

The FASB and the IASB have converged most of their accounting standards. They have the same structure for financial statements, accrual accounting, accounting elements, fair value measurement, and accounting for taxes. They still differ for insurance contracts, financial investments, and foreign currency adjustments. These three topics are of especially concern to actuaries and have recent changes that are not reflected in this textbook (or any general accounting textbook): IFRS 9 on financial investments is effective for 2018 and later; IFRS 17 (insurance contracts) is effective for 2021 and later; and some foreign currency translation adjustment topics in the CFA textbook are not up-to-date. The NEAS modules explain current IFRS and GAAP treatment for all items, without overwhelming students with accounting details.

The NEAS financial accounting course is comprehensive, covering both the CFA textbook and the GAAP and IFRS material for insurers. The NEAS discussion forum explains all the material with clear numerical problems even if they are not tested on the final exam. The discussion forum also specifies what will be asked on the final exam, so that you may prepare efficiently.

Students learn best when they can apply the material to their own work situations. IFRS and GAAP cover both long duration and short duration insurance contracts: premium income, acquisition expenses, policy reserves, and unpaid losses. U.S. GAAP and NAIC statutory accounting distinguish life insurance and individual health insurance (long-term contracts) from property-casualty insurance (short term contracts); IFRS has a basic structure (the building block approach) required for long-term contracts and a simplified (premium allocation) approach permitted for the first year of certain short term contracts. Statutory accounting and U.S. GAAP have different income recognition systems for traditional whole life insurance vs universal life-type policies, whereas IFRS 17 has a general model that is consistent with the accounting for banks and other financial institutions.

Solvency regulation systems, such as RBC in the United States and Solvency II in Europe, are associated with their countries' accounting systems. Capital structure for insurers and financial leverage ratio analysis are influenced by the capital recognized by RBC vs Solvency II. The CFA textbook shows how government rules affect accounting standards, and the course modules illustrate with RBC and Solvency II.

The final two modules of the course cover insurance contracts: SFAS 60, SFAS 97, IFRS 17, and the related statement of statutory accounting principles. In addition, each module shows insurance applications of the general accounting concepts and techniques, applying them to policy premiums, claims, expenses, and reserves in long duration and short duration contracts. Actuarial candidates work with insurance or investments; they best understand the accounting material when it is applied to these subjects.

The CFA textbook is intended for year-long study, with more material than can be covered in a VEE course. The NEAS modules add insurance specific topics (insurance contracts; statutory accounting; insurance regulation) and eliminate items that actuarial candidates rarely encounter, to allow room for the extra material. The modules specify the equations and accounting methods that candidates must master for the final exam.

The NEAS courses have more rigorous exam questions than the CFA exams have, so the modules provide practice problems and illustrative test questions ensuring that candidates can prepare adequately. The NEAS accounting course requires candidates to prepare, interpret, and analyze GAAP and IFRS financial statements and to understand how these statements articulate. The final exam questions test this expertise for various types of retail, manufacturing, and service firms, as well as for insurance contracts and financial investments. For example, given data on insurance premiums, benefits, and expenses, candidates should know how to form balance sheets and income statements under SFAS 60 and IFRS 17. Similarly, given data on investment activities (stocks, bonds, hybrid securities, subsidiaries, and joint ventures), candidates should know how to form balance sheets and income statements under SFAS 115 and IFRS 9.

Some accounting topics have elicited extensive debate by actuaries, particularly regarding fair value of policy reserves, risk margins for unpaid losses, and rule-based vs principles-based accounting standards. The modules add additional readings on these topics, such as the change from historical cost to fair value for financial assets, and fair value unpaid losses for IFRS, Solvency II, and the Swiss Solvency Test.

The modules on insurance-contracts and financial investments combine source readings with explanatory text. The source readings are selected paragraphs from the relevant SSAP's, SFAS's, and IFRS's, along with summaries and explanations by the FASB, the IASB. NEAS adds complete reviews of GAAP, U.S. statutory, and IFRS accounting treatment, based on the textbook we prepared for the SOA general insurance exam. The readings for the VEE course focus on accounting concepts, such as the qualitative attributes of financial statements or the credit-debt structure of double-entry book-keeping, not the details of statutory accounting, reinsurance accounting, or tax accounting on the SOA general insurance syllabus.

ENVIRONMENTAL AND SOCIAL ACCOUNTING

Traditional GAAP emphasizes nominal currency values, depreciated cost or amortized cost for multiperiod activities, and verifiable values specified by accounting rules that can be audited by independent accountants. IFRS stresses fair values that update initial costs for current market values (geared to investors and creditors), with a focus on return on capital. It emphasizes principles-based standards that are more difficult to verify but are often more relevant to investors.

Some persons take a broader view of corporate behavior, including social values and externalities incurred by employees, consumers, and the general public. Some business activities lead to environmental pollution or degraded habitats, but traditional accounting considers only the monetary costs or benefits to the reporting entity. Environmental accounting monetizes the externalities for the entity's financial statements, even if no legal liability exists. Environmental accounting is particularly useful for cities and states, whose performance is measured by the benefits they bring to their citizens, not by the profits they accrue.

Environmental accounting is of particular concern to insurers writing commercial liability coverages, who must predict their potential liability for new risks. Asbestos and pollution exposures in the United States bankrupted several domestic insurers and European reinsurers. The European Union has considered legislation making firms liable even for hard-to-quantify offenses like biodiversity loss and global warming.

The accounting course includes environmental and social issues along with traditional accounting practice. We show how balance sheets and income statements are modified to include externalities incurred by the public, and how fair values may include environmental losses. We include extracts from readings on environmental and social accounting in many of the modules.

Countries differ in their concern with environmental issues. Most developing countries emphasize growth, ignoring long-term medical and environmental issues, as growth may be the best antidote to poverty. Firms in developed countries have diverse strategies. The popularity of company rankings as good/bad places to work and current efforts to enhance work-places with child-care facilities and gyms show the importance of social accounting to many high-tech firms, such as Facebook and Google (even if their political views are much debated). Other firms thrive on competition among employees, with high pay and rapid advancement associated with grueling work; McKinsey, Amazon, and UPS are examples.

Practice problems for the final exam

The final exam has rigorous problems to ensure that candidates master the accounting material. The exam problems are modeled on the examples in the CFA textbook (and on those provided by the IFRS Foundation for the last four modules).

Candidates are not expected to independently figure out computational algorithms from accounting principles. Practice problems on the discussion forum explain the computations and provide numerous examples. The final exam problems follow the procedures in the practice problems, which explain all the accounting material. To prepare for the final exams:

- review the explanations in the CFA textbook
- work through the textbook examples to understand the accounting concepts
- make sure you can reproduce each of the practice problems on the discussion forum that will be tested on the final exam; each practice problem is designated if it will be asked on the exam or not.
- a separate post collates all the problems designated to be asked on the final exam; it is titled *Financial Accounting Final Exam Problems* and is in the *FA practice exam questions* thread.

The CFA textbook has extensive illustrations from financial statements of major firms. These illustrations have numerous items not discussed in the text but relevant for those firms, which are not tested on the final exams for the on-line course. These illustrations apply the accounting principles to actual business scenarios, but they are not required for this course.

The final exams also test qualitative material, such as the IFRS conceptual framework, the classification of cash flows for IFRS vs GAAP, and the differences between operating leases and finance leases. The required material is in the CFA textbook and repeated in the explanations on the discussion forum, but it is not shown in the practice problems.

Environmental and other non-traditional accounting system

financial accounting modules

1. Financial Reporting Standards
    a. Readings: chapter 1 *= 2009 ch1*
        i. §3 major financial statements and other information sources
    b. Balance sheet (statement of financial position)
    c. Income statement (statement of profit and loss)
        i. Other comprehensive income
    d. Statement of changes in equity
    e. Cash flow statement
    f. Financial notes and supplementary schedules
    g. Readings: chapter 2 *= 2009 ch2*
        i. § 2 the classification of business activities
        ii. § 3 accounts and financial statements
        iii. § 4 the accounting process
        iv. § 5 accruals and valuation adjustments
        v. appendix: debit/credit accounting system
    h. Accounting equations for the balance sheet and the income statement
    i. Articulation of financial statements
    j. Double-entry book-keeping
    k. Cash vs accrual accounting
    l. Valuation adjustments
    m. Deferred revenue and prepaid expenses
2. Financial reporting standards
    a. Readings: chapter 3 *= 2020 ch2* *= 2009 ch3*
        i. § 2 the objective of financial reporting
        ii. § 3 standard setting bodies and regulatory authorities
        iii. § 5 the international financial reporting standards framework (conceptual framework) *= 2020 §4 = 2009 §5*
    b. Standard-setting bodies vs regulatory authorities
        i. Financial Accounting Standards Board; Securities and Exchange Commission
        ii. International Accounting Standards Board; international organization of securities commissions
    c. Capital markets regulation in Europe and the United States
        i. Basel II/III
        ii. Solvency II
        iii. Risk-based capital
    d. Convergence of global financial reporting standards
    e. The International Financial Reporting Standards (IFRS) conceptual framework
        i. Elements of financial statements
            (1) assets, liabilities, equity
            (2) revenue, expenses, gains, losses
        ii. Objective of financial statements: emphasis on investors and creditors
        iii. Qualitative characteristics of financial statements
3. The income statement
    a. Readings: chapter 4 understanding income statements *= 2020 ch3 = 2009 ch4*
    b. Revenue recognition: discrete sales vs long-term contracts
        i. Pro-rata method
        ii. Percentage-of-completion method
        iii. Completed contract method
    c. Expense recognition and matching with revenue recognition
        i. Matching vs period costs
    d. Nonrecurring items and nonoperating items
        i. Discontinued operations and extraordinary items: IFRS vs U.S. GAAP

    e. Changes in accounting standards vs changes in estimates
    f. Simple versus complex capital structures; financial leverage
    g. Earnings per share and price-earnings ratios
    h. Other comprehensive income vs profit and loss
    i. Common-size analysis and income statement ratios
4. The balance sheet (statement of financial position)
    a. Reading: chapter 5 understanding balance sheets *= 2020 ch4* *= 2009 ch5*
    b. Format of the balance sheet: assets, liabilities, and equity; beginning and end of year
    c. Measurement bases of assets and liabilities: historical cost vs fair value
    d. Classification of assets and liabilities: current vs non-current
    e. Tangible vs intangible assets: trademarks, patents, copyrights, goodwill
    f. Financial assets and financial liabilities
    g. Statement of changes in shareholders' equity
    h. Common-size analysis and balance sheet ratios
5. The Cash Flow Statement
    a. Reading: chapter 6 *= 2020 ch5* *= 2009 ch6*
        i. § 2: components and format of the cash flow statement
    b. Classification of cash flows and noncash activities
        i. Operating activities
        ii. Investing activities
        iii. Financing activities
        iv. Differences between IFRS and U.S. GAAP
    c. Direct vs indirect cash flow formats for reporting operating cash flow
6. Articulation of the income statement, balance sheet, and cash flow statement
    a. Readings: chapter 6 *= 2020 ch5* *= 2009 ch6*
        i. § 3: the cash flow statement: linkages and preparation
        ii. § 4: cash flow statement preparation
    b. Illustrations of the direct method and the indirect method
    c. Evaluation of the sources and uses of cash
    d. Free cash flow to the firm (both debt and equity); free cash flow to equity
7. Financial analysis techniques
    a. Reading: chapter 7 *= 2020 ch6* *= 2009 ch7*
        i. § 4 common ratios used in financial analysis
        ii. § 5 equity analysis
        iii. § 6 credit analysis
    b. Activity ratios, liquidity ratios, solvency ratios, profitability ratios, and valuation ratios
        i. Integrated financial ratio analysis
    c. Applications of financial statement analysis
    d. Credit rating agencies: assessing bond credit risks
        i. The credit rating process
        ii. Economic structure of the credit rating industry
8. Inventories
    a. Reading: chapter 8 *= 2020 ch7* *= 2009 ch10*
        i. § 2 cost of inventories
        ii. § 3 inventory valuation methods
        iii. § 4 the LIFO method
        iv. § 5 inventory adjustments, including example 8 (Accounting for Declines and Recoveries of Inventory Value) but not including example 9 (Effect of Inventory Write-Downs on financial ratios *= 2020 §6*
        v. § 7.2 (but not § 7.1 or § 7.3)
9. Accounting for long-lived assets
    a. Reading: chapter 9 long-lived assets *= 2020 ch8* *= 2009 ch11*
        i. § 2 acquisition of long-lived assets *= 2009 §2,3*
        ii. § 3 depreciation and amortization of long-lived assets *= 2009 §4,5*
        iii. § 4 the revaluation model *= 2009 §9*
        iv. § 5 impairment of assets *= 2009 §8*

   - v. § 6 de-recognition
   - b. Long-lived fixed assets: property, plant, and equipment
     - i. Capitalization of acquisition expenditures
     - ii. Capitalization of interest costs
   - c. Long-lived intangible assets: acquired vs internally generated
   - d. Depreciating long-lived tangible assets
     - i. Estimated useful life, salvage value, and depreciation methods

10. Long-term (non-current) liabilities
    - a. Reading: chapter 10 *= 2009 ch13*
      - i. § 2 bonds payable
      - ii. § 5 evaluating solvency: leverage and coverage ratios *= 2009 not covered; not tested on final exam*
    - b. Amortizing intangible assets with finite useful lives
    - c. Disposal of long-lived operating assets: sale vs other forms of disposal
    - d. Impairment of long-lived tangible assets held for use vs held for sale
      - i. Impairment of intangible assets with finite lives
      - ii. Impairment of goodwill and other intangibles with indefinite lives
      - iii. Reversals of impairments of long-lived assets; revaluation of long-lived assets
    - e. Accounting for bond issues: income statement and cash flow statement
      - i. Bond amortization, interest expense, and interest payments
      - ii. Debt covenants: presentation and disclosures
11. Leases
    - a. Reading: chapter 9 § 9 leasing *not in 2020; everything is in 2020 chapter 10*
    - b. Reading: chapter 10 § 3 leases *= 2009 13§*
    - c. Finance leases vs operating leases
      - i. Classification of leases under IFRS and GAAP
    - d. Accounting and reporting by the lessee
      - i. Lease expense vs depreciation expense and interest expense
      - ii. Accrued interest vs reduction in lease liability
      - iii. Effects on financial ratios: debt-to-equity ratio, financial leverage, return on equity
    - e. Accounting and reporting by the lessor
      - i. Direct financing lease vs sales-type lease
    - f. Timing of profit recognition
12. Accounting for income taxes
    - a. Reading: chapter 13 *= 2020 ch9 = 2009 §12*
      - i. § 2 differences between accounting profit and taxable income
      - ii. § 3 determining the tax base of assets and liabilities
      - iii. § 4 temporary and permanent differences between taxable and accounting profit
    - b. Accounting income vs taxable income
      - i. Taxes paid vs tax expense
      - ii. Pre-tax income vs taxable income
      - iii. Current tax assets and liabilities vs deferred tax assets and liabilities
    - c. Carrying value vs tax base of assets and liabilities
    - d. Temporary (timing) vs permanent differences between taxable income and accounting profit
13. Deferred taxes
    - a. Readings: chapter 13 *= 2020 ch9 = 2009 §12*
      - i. § 5 unused tax losses and tax credits
      - ii. § 6 recognition and measurement of current and deferred tax
    - b. Deferred tax assets and liabilities
      - i. Taxable temporary differences
      - ii. Deductible temporary differences
      - iii. Changes in income tax rates
      - iv. Operating loss carryforwards
      - v. Valuation allowances
    - c. *Illustrations:* accounts receivable, research and development, deferred revenue; prepaid expenses; unrealized capital gains and losses; depreciation methods; inventory accounting methods

   d. Methods of computing deferred tax assets and liabilities
      i. Balance sheet method
      ii. Income statement method
      iii. Reversal method
14. Employee pensions and share-based compensation
   a. Reading: chapter 10 *only ch 14 for 2009 text*
      i. § 4 introduction to pensions and other post-employment benefits
   b. Reading: chapter 14
      i. § 2 pensions and other post-employment benefits
      ii. § 3 share-based compensation
   c. Pensions and other post-retirement benefits
      i. Accounting for defined benefit costs vs defined contribution costs
      ii. Measuring a defined benefit pension plan's obligations
      iii. Financial statement reporting of defined benefit pension plans
      iv. Periodic pension costs
         (1) service costs
         (2) net interest expense / income
         (3) remeasurement
         (4) actuarial gains and losses
         (5) changes in assumptions
      v. Accounting for funded vs unfunded liabilities of defined benefit plans
   d. Share-based compensation
      i. Executive stock options: historical cost vs fair values
      ii. Accounting for employee owned firms
15. Intercorporate investments
   a. Reading: chapter 15 *= 2020 ch13 = 2009 ch15*
      i. § 2 basic investment categories
      ii. § 3 investments in financial assets IAS 39 *covered in discussion forum for 2009 text*
      iii. § 4 investments in financial assets IFRS 9
   b. Active vs passive investment strategies
   c. GAAP classification of passive investments
      i. held to maturity securities: amortization methods and interest income
      ii. held for trading purposes: unrealized capital gains in profit and loss
      iii. available for sale: unrealized capital gains in other comprehensive income
   d. IFRS 9 twin tests for amortization of bonds
      i. Securities with principal and interest payments only
      ii. Business strategy test
   e. GAAP vs IFRS differences: profit and loss, other comprehensive income, and recycling
   f. Impairment: permanent credit losses vs temporary interest rate and exchange rate losses
      i. GAAP two step impairment tests: credit events and duration of price decline
      ii. IFRS twelve month and lifetime expected credit losses
      iii. Accounting for reversals of impairment
16. Minority active investments: Equity method of accounting and measures of control
   a. Reading: chapter 15 *covered in discussion forum for 2009 text*
      i. § 5 Investments in associates and joint ventures
   b. Amortization of investment costs exceeding the book value of the investee
      i. Allocation to tangible assets or to intangible assets with finite useful lives
      ii. Allocation to general goodwill with indefinite useful life
   c. Impairment of investee values
   d. Shareholder dividends vs book profit and loss
   e. Intercompany transactions with associates
      i. Upstream sales
      ii. Downstream sales
17. Business combinations
   a. Reading: chapter 15
      i. §6 business combinations

b. Mergers, acquisitions, consolidation
c. Combining book values and fair values
d. Special purpose entities (variable interest entities)
    i. Special purpose entities for leased assets
    ii. Securitization of assets and structured securities
e. Recognition and measurement of goodwill
    i. Full goodwill method
    ii. Partial goodwill method
    iii. Amortization and impairment of goodwill
f. Controlling interests and non-controlling (minority) interests

18. Foreign currency transactions
    a. Reading: chapter 16 *= 2020 ch15 = 2009 ch16*
        i. §2 Foreign currency transactions
    b. Interest rates and inflation
        i. Purchasing power parity
        ii. Interest rate parity
    c. Foreign currency exchange rates
    d. Presentation currency vs local currency vs functional currency
    e. Exposure to foreign currency exchange rate risk
        i. Import purchase
        ii. Export sale
    f. Transactions with settlement before balance sheet date
    g. Transactions with intervening balance sheet date
    h. Effect on operating income
19. Foreign currency translation using current rate method
    a. Reading: chapter 16 *= 2020 ch15 = 2009 ch16*
        i. § 3 translation of foreign currency financial statements
    b. Current rate method:
        i. Foreign currency is the functional currency
        ii. Assets and liabilities at the balance sheet exchange rate
        iii. Revenue and expenses at the transaction date exchange rate
        iv. Foreign currency translation in other comprehensive income
    c. Temporal method:
        i. Parent's presentation currency is the functional currency
        ii. Monetary assets and liabilities at the current rate
        iii. Non-monetary assets and liabilities at the historical rate
        iv. Translation of retained earnings
        v. Remeasurement gain or loss on the income statement
    d. Foreign subsidiaries operating in hyper-inflationary economies
        i. IFRS vs GAAP methods
    e. Effects on financial ratios
    f. Currency risks:
        i. Accounting mismatch
        ii. Economic mismatch
20. Insurance contracts: GAAP
    a. Reading: SFAS 60: 1-4; 7-18; 20-22; 26-37
    b. Reading: SFAS 113: 1, 3, 6, 8-11, 14-16
    c. SFAS 60: long duration vs short duration contracts
        i. Renewability and fixed premiums; constraints on changing rates and classifications
        ii. Revenue recognition: evenly over policy term or when premium is due
        iii. Loss recognition: actuarial forecasts of IBNR claims on short duration contracts
        iv. Policy reserve computations on long duration contracts
        v. Locked in interest rates, mortality rates, morbidity rates, and lapse rates
    d. Underwriting and acquisition expense recognition
        i. Deferrable expenses for GAAP income statement and DPAC on GAAP balance sheet
        ii. Amortization of DPAC for long duration contracts

   e. Premium deficiency reserves
      i. Grouping of contracts
      ii. GAAP conservatism:
         (1) no deferral of losses
         (2) no anticipation (advance recognition) of gains
   f. Universal life-type contracts
      i. Investment contracts with secondary insurance guarantees
      ii. Embedded derivatives
   g. Reinsurance accounting
      i. Transfer of risk testing for ceded reinsurance
21. Insurance contracts: IFRS 17
   a. Building block approach:
      i. Probability weighted mean of future cash flows
      ii. Discount rate
      iii. Risk adjustment for non-financial risk
         (1) Sum = fulfilment cash flows
      iv. contractual service margin
   b. Discount rate maturity, currency, and liquidity
      i. Principles-based top down and bottom up approaches
         (1) contrast fixed rates for GAAP and for Solvency II
   c. Contractual service margin
      i. Eliminates Day 1 gains
      ii. Released into statement of profit and loss over contract period
      iii. Accretion of interest
         (1) contractual service margin
         (2) future cash outflows
22. Insurance contracts: IFRS 17
   a. Onerous contracts
      i. Portfolios: similar risks and common management
      ii. Groups of onerous, non-onerous, and other contracts
      iii. Grouping by issue date
   b. Risk adjustment for non-financial risk
      i. Re-measured at each valuation date
      ii. Value at risk (get IFRS term)
      iii. Tail value at risk (get IFRS term)
      iv. Disclosure of confidence intervals
      v. Cost of capital approach for Swiss Solvency Test and Solvency II
   c. Changes in estimates
      i. Changes in claim estimates through statement of profit and loss
      ii. Changes in discount rates may flow through other comprehensive income
         (1) Option for profit and loss to avoid accounting mismatch with IFRS 9
23. Insurance contracts: IFRS 17
   a. Variable fee approach
      i. Contracts with voluntary participation features
   b. Premium allocation approach: policy term, loss payment lag, contract boundaries
   c. Presentation of insurance performance
      i. Insurance service revenue
      ii. Insurance finance revenue and expense
      iii. Disclosures: yield curves; risk exposures; claims development; credit quality; liquidity risk
24. Illustrations of the IFRS 17 approaches:
      i. Whole life insurance and general liability for building block approach
      ii. Motor insurance for premium allocation approach