ACTEX Learning

Study Manual for ILA Life Financial Management US Exam

3rd Edition

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An SOA Exam

LIFE FINANCIAL MANAGEMENT U.S. EXAM

STUDY GUIDE

Third Edition

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SECTION A

US GAAP FINANCIAL REPORTING AND VALUATION

U.S. GAAP, CHAPTER 1

GAAP OBJECTIVES AND THEIR IMPLICATIONS TO INSURERS

I. Fundamental concepts

A. The U.S. is a free enterprise economy where government monitors and regulates businesses

1. Capital is raised from individual and institutional investors for company operations

2. Types of companies

    a. Publicly held--stock of these companies is traded on exchanges

    b. Privately held—stock of these companies are not traded

    c. Mutual companies—owned by their policyholders

3. Owners providing capital expect a satisfactory return in proportion to apparent risk

4. To help make this determination, GAAP creates transparency through appropriate, timely, and accurate information for external users

B. Financial statements

1. Financial statements are the primary, quantitative source of information about a business enterprise

2. A uniform currency is used

3. Currency is not adjusted for inflation

4. Foreign currencies are converted to the uniform currency

5. Non-monetary information is converted into financial measures (property less depreciation)

6. Statements relate to a single enterprise; all subsidiaries are consolidated into a single financial statement

7. Provide no guarantees for future outcomes

C. Reportable segments

1. Public entities must report certain information by segment

2. Reportable segments are identified as homogenous in itself, but different from other segments

3. They are used by senior management to allocate resources and assess performance

4. Segments are not comparable between companies

D. Financial statements provide summarized information about the enterprise

1. Resources (assets)
2. Claims against resources (liabilities)
3. How transactions flow through the income statement (earnings)
4. Related impacts on cash flows

E. Equity markets determine enterprise value; financial statements do not

F. Transactions

1. Transactions reported have generally occurred; future transactions are not considered other than reserves for insurance companies
2. Transactions are measured over a clearly defined period
3. Users of financial statements prefer shorter periods

G. Accrual accounting

1. Cash elements do not accurately reflect a transaction
2. Accrual accounting adjusts financial statements to allocate revenue and expenses appropriately in each measurement period (e. g., claim liabilities are set up prior to cash settlement)

H. GAAP standards require the qualitative and quantitative information to be provided; users do not have the ability to influence management for specific information

I. The goal of financial reporting is to provide financial information to investors, lenders, and creditors about providing resources to the entity; decisions involve buying, selling, and holding equity and debt and providing or settling loans or other credit

1. It includes all forms of communication to users

2. Users are current and future investors, creditors, or parties to transactions with the company and include company management and regulators

J. Management is responsible for the fair presentation of the company’s financial position, results of operations and cash flows under GAAP

K. Auditors

1. Opine on whether financial statements are presented fairly in all material respects under GAAP or other accounting basis and internal controls

2. Auditors can be internal employees or external auditors reporting to the board of directors

3. Testing is done to form a basis for their opinion

L. Regulators

1. FASB provides oversight of GAAP and financial statements

2. PCAOB sets standards for auditors and accountants

3. SEC is the ultimate regulator for public companies with the power to de-list a company from an exchange

4. FASB issues concept statements to explain the basis for financial accounting and reporting

M. Financial statements justify their cost because they are relevant and reliable

1. Relevant information

    a. Information must be consistent and comparable with other information

    b. Consistent information uses similar or identical measures as prior periods

    c. Comparable means equivalent to measures used in prior periods as well as used by other enterprises

        i. If a significant error is discovered, it is corrected in the current reporting period and previous reporting periods are restated for comparability

        ii. Comparability also requires that it should be determined independent of the enterprise

        iii. To accomplish this, GAAP tries to prescribe rules without regard to the form of organization of the reporting entity (insurance is an exception)

    d. An appropriate level of detail must be used; detail must be adequate without being confusing or difficult to use

2. Reliable information

   a. Information must meet an objective standard of accuracy, including verifiability; incorrect decisions should not result from using the data

   b. Information must be materially accurate

      i. An omitted fact is material if there is a substantial likelihood that a reasonable user would consider it important

      ii. Assessment of materiality requires viewing the facts in the context of surrounding circumstances or total mix of information

      iii. For financial statements, it includes

         i. Numerical or percentage terms of misstatement
         ii. Factual context in which a user would view the item

   c. Information must be free from bias

      i. Assets and liabilities should not be understated or overstated
      ii. Contingency reserves do not meet the definition of liability under GAAP

N. Relationship to regulatory accounting

1. Insurance companies domiciled in the U.S. must file a statutory basis financial statement which is governed at the state level

2. GAAP

   a. Objectives meet the needs of users of financial statement

   b. Stresses measurement of emerging earnings of a business from period to period

3. Statutory accounting

   a. Objectives meet the concerns of regulators who are the primary users of these statements

   b. Stresses ability of the company to pay claims in the future

4. International accounting standards may also be applicable

O. Cash versus accrual basis accounting

1. Companies must keep track of assets, liabilities and transactions and how these grow over time, hence the importance of cash accounting

2. Accrual adjustments correct for incomplete or long-term transactions

3. Under cash accounting, an accounting entry is made when cash changes hands

4. In accrual accounting (GAAP accounting) transactions may be recorded before cash changes hands

5. Accruals are also used to put transactions into the correct accounting period; the same amount of cash ultimately changes hands but the timing of the recording varies

II. Financial statements

A. Basic elements

1. A financial statement consists of

    a. Balance sheet
    b. Income statement
    c. Statement of comprehensive income
    d. Statement of stockholder's equity
    e. Statement of cash flows

2. Debits and credits are the two sides of an account; one records increases, the other decreases

3. Increases in assets are debits; increases in liabilities and equity are credits

4. The balance sheet formula

    Assets = Liabilities + Equity

    $$A = L + E$$

    Where
    A = assets
    L = liabilities
    E = equity (capital and surplus on statutory financial statements)

5. Equity consists of paid in capital, retained earnings from prior years and income from the current year

6. The income statement formula

$$NI = P + I - B - X - T$$

$$E_t = E_t + NI$$

Where
P = premiums
I = investment income
B = benefits paid plus reserve increase/decrease
X = expenses
T = taxes
NI = net income

B. Balance sheet

1. It is composed of three sections—assets, liabilities and equity

2. Assets

a. Characteristics of an asset

i. It has a present right
ii. The right is to an economic benefit

b. These characteristics gives an entity economic control over am asset and can restrict access to others; the owner can enforce this right when the asset is sold or used

c. Costs to maintain or liquidate an asset are not recognized until incurred

d. If economic benefits decrease over time a provision for loss may be necessary

e. Tangible assets—property, equipment, and financial instruments

f. Intangible assets—parents, goodwill, franchises

g. In reinsurance, there is an asset for an expected recoverable from the reinsurer

i. Reinsurance is when a company cedes risk to a reinsurer
ii. There is a requirement to assess whether reinsurance is impaired
iii. Credit risk is factored into the recoverable

3. Liabilities

    a. Characteristics of a liability

        i. It is a present obligation

        ii. The obligation requires the entity to transfer or provide economic benefits to others

    b. Liabilities for contingent events are accrued and charged to income when both events are met

        i. If information available before financial statements are available indicates that an asset is impaired, or a liability has been incurred after the date of the financial statements, and it is probable that future events will confirm the loss

        ii. The amount of loss can be reasonably estimated

    c. A contingent liability must be probable and reasonably estimated

    d. An insurance contract represents a liability if three conditions are met

        i. Once the policy is issued, there is a probabilistically determined amount as to the likelihood of the insured event occurring during the coverage period of the contract

        ii. The insurance company must pay the claim or face legal action

        iii. Premium to start the contract has been paid, obligating the insurer for an insured event

4. Equity

    a. Equity represents the residual amount remaining after deducting liabilities from assets

    b. It includes capital contributions from owners and accumulated earnings retained by the company

    c. Equity increases by gain from operations and owner contributions

    d. Equity decreases by losses, dividends, and other capital transactions

C. Income statement

1. Income statement has two purposes

    a. Revenues and expenses as part of ordinary company operations

    b. Gains and losses from tangential events or transactions not considered part of a company's ordinary operations

2. Revenues are inflows or enhancements of assets or settlement of a liability from delivering or producing goods, services, or other activities (premiums, contract fees, investment income)

3. Expenses are outflows or using up of assets or incurrence of liabilities from delivering or producing goods, services, or other activities (policy claims, credited interest, expenses, change in reserves)

4. Gains are increases in equity from transactions and other events and circumstances except those that result from revenues or investments by owners

5. Losses are decreases in equity from transactions and other events and circumstances except those that result from expenses or distributions to owners

6. Comprehensive income is the change in equity of a business entity from transactions and other events and circumstances from non-owner sources

7. A complete financial statement includes

    a. Assets and liabilities at the beginning and end of a financial period

    b. Earnings and comprehensive income for the period

    c. Descriptive comments, footnotes, and disclosures

8. Assets and liabilities are measured at a point in time; net income, comprehensive income and capital transfers are measured over the period covered by the financial statements

9. Actuaries use the terms reserve and surplus (owner's equity), but these are not used in GAAP

D. Layers if earnings

1. Earnings can be measured in different layers

2. Gross profit is revenues less cost of goods sold

3. Pre-tax net income is gross profit reduced by operating expense

4. Pre-tax net income less federal income tax is net income which includes realized capital gains and losses net of tax

5. Net income may include non-recurring items

6. Non-GAAP measures of internal performance are not considered measures under GAAP and are not part of the formal GAAP financial statements

E. Components of the income statement

1. Revenue

   a. Premiums
   b. Policy charges and fees
   c. Investment income
   d. Realized capital gains and losses

2. Expenses

   a. Incurred claims and losses
   b. Surrenders
   c. Policyholder dividends
   d. Interest credited
   e. Commissions
   f. Change in reserves

3. Net income before tax

   a. Federal income tax

4. Net income after tax

   a. Extraordinary items
   b. Net income after extraordinary items

F. Comprehensive income represents all changes in equity other than owner related transactions

1. It is subdivided into net income and other comprehensive income

2. Comprehensive income includes

   a. Effects of unrealized gains and losses on available for sale assets carried at fair value

   b. Shadow adjustments representing the impacts on other balance sheet items where the unrealized gains and losses on available for sale securities recognized immediately

   c. Impact of the change in discount rate used to value the liability for future policy benefits on traditional long duration insurance contracts

   d. Any adjustment to the fair value of a market risk benefit for movements in the company's own credit risk

3. These items change equity without changing net income

4. The total change in equity comprises capital transfers and comprehensive income

5. Comprehensive income comprises net income and other comprehensive income

6. It can be presented as a line below net income, a comprehensive income statement, or as part of the summary changes to equity

G. Changes in equity

1. Beginning of year equity

   a. Comprehensive income
      i. Net income
      ii. Continuing operations
      iii. Discontinued operations
      iv. Extraordinary items

   b. Other comprehensive income
      i. Net unrealized capital gains and losses
      ii. Change in discount rate
      iii. Foreign currency translation
      iv. Pension liability adjustments

2. Owner transactions
   a. Capital contributions
   b. Shareholder dividends

3. End of year equity

III. Recognition and measurement of financial statement elements

A. Standardized rules are needed to recognize and measure financial statement elements

1. Recognition means including an item in financial statements as an asset, liability, revenue, or expense

    a. In its appropriate treatment
    b. At its appropriate time

2. An outlay of cash can be considered an

    a. Expense
    b. Dividend
    c. Reduction of liability
    d. Asset

3. To be recognized, an item must meet the following criteria

    a. Definition (asset, liability, revenue, expense)

    b. Measurability (quantifiable with reliability)

    c. Relevance (consistent, comparable, meaningful information to an informed user)

    d. Reliability (information is accurate, verifiable, and free from bias)

4. Attributes

    a. GAAP guidance determines the attribute to be measured once an element is recognized

    b. Monetary units are used, not adjusted for inflation

    c. Foreign currencies are converted into dollars at the time of the transaction

5. Method of measurement

    a. Historical cost can be determined from company records, and assets are adjusted for depreciation

    b. Fair value is obtained from

        i. Active, robust secondary markets
        ii. Expert appraisal

c. Present values are calculated using discounted cash flow method

   i. The discount rate depends on each GAAP section

   ii. Due to subjectivity, it is the least reliable method when other options are available

   iii. However, life insurance reserves use this method; it is prescribed by GAAP

B. Financial statement accounts and inter-relationships

1. GAAP attempts to prescribe methods that cause profits to emerge in proportion to the degree of completeness of the earnings process, or in proportion to services rendered

   a. For short duration contracts, premium is paid up front but recognized over the coverage period

   b. For long duration contracts, premium is recognized as revenue when paid and a portion is set aside to fund future policy benefits

2. Adjustments made to past events include liabilities for

   a. Advance and unearned premiums (a portion of the premium is attributable to future periods)

   b. Unpaid claim liabilities (benefits incurred but not yet settled, and a liability for future policy benefits from a portion of premiums)

   c. Account deposits

   d. Accrued but unpaid dividends

   e. Dividends on deposit

3. Deferred acquisition costs (DAC) is established as a deferral item for contract acquisition costs that meet deferral conditions

   a. A portion of commissions meet the deferral criteria

   b. The deferral period cannot be longer than the expected contract term

4. Premium adjustments ensure that only premiums earned in the accounting period are counted as revenue; a liability is held for premiums attributed to a future period

5. The income statement has two elements

    a. Cash received and returned
    b. Change in related assets and liabilities

6. A premium due and unpaid is held as an asset if collection is likely

7. Dual entry accounting system—every entry has a dual impact on financial position, operating results, or both

8. Profits are reduced in the accounting period when contract reserves are increased

9. Relationships between income statement and balance sheet

    a. Net income (income statement) is the change in net assets (balance sheet)

    b. Increase in reserves (income statement) is the change in reserves (balance sheet)

C. Short duration contracts

1. Short duration contracts are contracts with a short term expected life cycle

2. A contract may be able to renew, but there is no renewal guarantee

3. Premium accrual either falls into

    a. An unearned premium reserve which holds premiums until they are earned
    b. Claim reserve which is set up as claims are incurred

4. Premium income (earned premium) does not correspond with cash collection

5. Premium only accrues as the coverage period unfolds over the life of the contract

D. Long duration contracts

1. The major accrual adjustment is for future policy benefits which include the contract reserve and benefit reserve (reserve for future policy benefits)

2. If a level gross premium is used to fund an increasingly expensive benefit, the reserve grows as the net premium (portion of gross premium for future policy benefits) is set aside for future policy benefits

3. The rate and pattern of reserve growth determines the pattern of profit emergence over time

4. For universal life, deferred annuities, and other nontraditional products,

    a. Premiums are treated as deposits (not premiums) and are directly credited to the balance sheet liability representing funds held on behalf of the policyholder (such as the account value or a separate account)

    b. Revenues are fees and charges deducted from the policyholder balance

    c. The company earns investment income on the contract proceeds

5. For variable universal life policies, the income statement is completely different; instead of showing gross investment income and interest credited, the company shows fee income

6. In comparing traditional, universal life and variable universal life policies

    a. Only traditional policies show premiums as revenue offsetting benefit expense from establishing a reserve

    b. Universal life and variable universal life reflect the initial payment as a deposit (no expense for initial contract benefit) outside of revenues and only reflect revenues when fees are charged to the policy

    c. For variable universal life, funds are removed from the general account and transferred into a separate account

        i. There are no investment earnings in the general account or offsetting interest credited to policyholders
        ii. Separate account assets inure to the policyholder

E. Mutual insurers

1. Unique issues apply to the application of GAAP to mutual insurance companies

2. There are no shareholder dividends or equity infusions into a mutual company

3. The change in equity from year to year does not involve owner transactions (even though policyholders are technically the owners)

4. The mutual holding company has characteristics of both stock and mutual companies

    a. The parent is a mutual company owned by its shareholders

    b. The holding company subsidiary owns all or part of the equity of a stock insurance company subsidiary

5. Consolidated statements include both stock and mutual company transactions

6. Participating policies issued by insurance companies follow special rules

IV. Measurement methods, estimates, and materiality

A. Information used in financial reporting is appropriate rather than exact, and includes estimates, allocations, summaries, and classifications

B. For life insurers, the present value of cash flows is actuarially determined

1. The actuary considers all available information in this process including experience, pricing assumptions, and industry tables to develop reasonable, current estimates for future experience

2. The actuary projects mortality, morbidity, persistency, and other experience

3. The reserve may be expressed as

a. The present value of future benefits less the present value of future premiums

b. The accumulation of past premiums less benefits incurred

C. Use of estimates

1. Some future events are inherently unknowable, and waiting for the event to occur could produce significant mismatches between the receipt of premiums and the payment of claims

2. It is better to have approximately correct information on a timely basis than perfect information that is too late to be valuable

3. The level of precision is appropriate if external users of financial statements are able to make informed decisions about the allocation of capital to the enterprise

4. Greater precision is required for subsidiaries and segments due to their smaller size; a small error in a consolidated statement can be a large error in a segment

5. For small errors, revised estimates are used rather than correcting past estimates

D. Materiality

1. Material errors need to be corrected and require restatement of previously issued financial statements with disclosure of corrections made

2. Sometimes a decision is made to ignore an item that is small in size or uncertain to occur

3. An item is immaterial if its effect is so small that as to have no influence on decision making

4. The concept of materiality is judgmental

5. Financial statements are true and fair if the aggregate all items ignored plus aggregated inaccuracies in all estimates have no impact on users of financial statements

6. The concept is important to management and auditors as to the significance (and possible audit testing) of accounting policies, disclosures, and conclusions

V. Other revenue streams

A. Insurance companies may have additional sources of income other than insurance

B. These activities may leverage existing skills by offering them directly to customers and the insurance company can receive fee income for them

C. Some companies have a broker dealer that buys and sells securities on behalf of the insurance company and its customers; investors use broker dealers to invest in publicly traded companies for a transaction fee

VI. Disclosures

A. Financial statement elements that fail to satisfy the test for recognition may be important

B. Footnotes and disclosures are part of the financial reporting process and have an impact on decisions made by users

C. Market risk disclosure

1. Financial statements provide a point estimate; however, future events may influence this estimate

2. The SEC requires quantitative and qualitative information on the impact of market risk on financial statements

3. Quantitative disclosure can include

a. Tabular presentation of information related to market risk sensitive instruments

b. Sensitivity analysis showing potential loss in future earnings resulting from hypothetical scenarios

c. Value at risk disclosures showing potential; loss in future earnings resulting from changes in interest rates, currency exchange rates and other rates

4. Qualitative disclosures about market risk should include

i. A list of exposures
ii. How they have changed
iii. How they are managed

D. Other important disclosures include

   1. Changes in accounting principles

   2. Disclosure of subsequent events including

      a. Significant events occurring after the end of the reporting period but prior to the release of the financial statements

      b. This includes new events and new evidence on existing situations

E. Disclosures included in GAAP statements include

   1. Description of the company and its products
   2. Summary of significant accounting policies
   3. Details of invested assets
   4. Details of unpaid claim liabilities, future policy benefits, policyholder account balances, market risk benefits, DAC, unamortized deferred sales inducements, and other items such as leases, pension plans, and receivables
   5. Sale or purchase transactions during the year
   6. Nature of reinsurance
   7. Stockholder dividends, stock repurchases, or other capital transactions
   8. Statutory financial data

F. Disclosures are subject to standards of accuracy and verifiability as numerical results, and, if audited, related footnotes are subject to audit procedures

U.S. GAAP, CHAPTER 3

PRODUCT CLASSIFICATION AND MEASUREMENT

I. Introduction

A. The nature of a contract must be assessed to determine the appropriate accounting model to use; this does not change over the life of a contract

B. Different insurance contracts are measured using different approaches

II. Overview

A. Insurance is the guidance for reporting by the following entities

1. Stock and mutual life insurers
2. Property and casualty insurers
3. Captive insurance entities
4. Reinsurance entities
5. Fraternal benefit societies

B. Insurance entities must comply with ASC Topic 944

C. The accounting approach to an entity rather than the contract differs from other accounting bases

D. ASC Topic 944 does not apply to non-insurance entities that issue or purchase contracts that cover insurance risks (warranties and catastrophe bonds)

E. The guidance for insurance liabilities for claim costs and future policy benefits along with premium revenue is subdivided into short duration and long duration models

1. Separate guidance is applied to reinsurance, which tends to follow the short duration/long duration split

2. There is a separate category for financial guaranty insurance; there is a single measurement for short duration contracts and multiple long duration models

F. Long duration covers the following types of insurance products

1. Traditional fixed and variable annuity and life insurance contracts
2. Universal life type contracts
3. Non-traditional fixed and variable annuity and life insurance contracts
4. Participating life insurance contracts
5. Group participating pension contracts

G. Insurance models give specific guidance for the allocation of revenues and costs that have future economic benefit to future periods over which services are provided or received

H. Insurance contracts can have a disconnect between the premium paying period and the period over which benefits are paid

    1. This creates a liability to defer recognition of premium until insurance services are provided; liabilities are presented separately as amounts set aside for insured events that have not yet occurred

    2. Liabilities that have occurred, but payment has not been paid fall into four categories

        a. Liability for future contingent payments on claims that have been adjudicated and are in the course of settlement (disabled life reserve or present value for amounts not yet due)

        b. Liability for payments that are known but either not yet fully adjudicated or fully adjudicated but not yet paid (in the course of settlement, ICOS)

        c. Liability for claims that have occurred but not yet reported to or known by the insurer (incurred but not reported, IBNR)

        d. Liability for claim settlement expenses

    3. Certain contracts do not qualify as insurance products

    4. Insurance contracts may have features incremental to the base contract

        a. These features are identified and may be accounted separately from the base contract, such as market risk benefits and embedded derivatives

        b. Once features are identified and the accounting model is determined for each component, the measurement of liability and associated assets can occur

III. Contract classification

A. Insurance contracts provide protection for specified risks

    1. Purchaser makes an initial payment or deposit prior to discovery of an insured event
    2. Insurance company has the obligation for the insured event but does not know when or how much it will pay

B. There is a prescribed order of evaluation that is applied to contract classification

C. Contract type and accounting model are determined for each contract individually

D. Insurance risk is the risk of uncertainties about both underwriting risk and timing risk

    1. Actual or imputed investment returns are not insurance risk

    2. Insurance risk is fortuitous—the possibility of an adverse event occurring is out of the control of the insured

E. Examples are death, disability, medical bills, surety, title insurance, property destruction

F. If a contract does not transfer insurance risk, or if the insurance risk is nominal, it is evaluated for treatment as a derivative, investment contract, service contract, or other contract

   1. Nominal risk means insignificant risk or risk with a remote chance of occurring

   2. Remote is a matter of judgment; it means there might be a slight probability of occurrence

G. Identifying insurance contracts

   1. A financial contract issued by an insurance company must have significant insurance risk to be classified as an insurance contract

   2. If the significance threshold is not met, it is accounted as a different contract

   3. The assessment occurs at contract issue and does not change unless the contract is modified

   4. Special risk classification rules are used for reinsurance contracts

H. Evaluating the significance of insurance risk

   1. Methods for evaluating significance of insurance risks vary by type of product

   2. Life and health contracts

      a. For life and health contracts, a determination is needed as to whether sufficient risk exists at contract inception

      b. Contracts providing for mortality and morbidity risks meet the definition unless the risk is nominal (an insignificant amount or remote possibility)

      c. Traditional life contracts meet this definition; nontraditional contracts require more analysis

      d. Techniques used to justify mortality risk in nontraditional contracts

         a) For universal life and short term endowment policies, compare the present value of excess payments to the present of expected payments

            i. Excess payments are benefit payments in excess of the account value

            ii. Assessments are charges assessed to the contract, including interest margin

            iii. Interest margin is the difference between investment income expected on policyholder balances and expected amounts credited to policyholders; (Note that policyholder balances are used, not the assets in support of liabilities which is larger)

b) For other life contracts a similar analysis can be performed to assess whether the probability of a significant, life contingent payment in excess of the account value is remote

c) Life policies that meet the requirements of the tax law should meet the GAAP definition; however non-U.S. products and very old U.S. policies may not

d) For health insurance, similar rules apply; however, most health policies in the U.S. will meet the GAAP definition because benefit payments are well in excess of premiums

e) Also, the possibility of catastrophic claims on insured events should be sufficient to qualify a policy as insurance even though the likelihood is small and the expected value of claims to premiums is small

3. The evaluation assesses whether the probability of a significant, life contingent payment in excess of the account value is small

   a. U.S. tax laws define life insurance to require a minimum amount of insurance risk to be present to receive favorable tax treatment

   b. A contract meeting the tax definition is likely to meet the significant risk test under GAAP

   c. Non-U.S. products and old U.S. products may not meet the significance test if there are significant savings elements

4. Health contracts follow similar concepts

   a. Most heath products qualify because there is a possibility of benefits well in excess of the premium

   b. The possibility of catastrophic claims on insured events may be sufficient insurance risk even if the likelihood and the expected payout is low, such as accidental death and dismemberment

   c. Annuity contracts

      a) Immediate annuity contracts combine payments that are certain with payments contingent on survivorship

         i. When certain and life contingent payments are combined, they are considered insurance contracts unless

            a) The probability that life contingent payments will be paid is remote, or

            b) The expected value of life contingent payments is insignificant relative to the present value of total expected payments under the contract

   ii. The investment component is not separated from the insurance component unless they are distinct and not inter-related; if separate and distinct, each is treated as a separate contract

b) One approach to assess whether an annuity contract has insurance risk is to measure the ratio of expected life contingent payments as a percentage of the present value of total payments expected to be made under annuity contracts with different certain periods issued at various ages

   i. As age and the certain period increase, the present value of life contingent payments decreases as a percentage of total payments expected to be paid under the contract

   ii. Interpretation of nominal insurance risk varies by company, but generally around 5% to 10%

c) Another method to determine insurance risk is to assess whether the likelihood of a life contingent payment is remote

   i. There is no clear test to assess whether the probability is remote

   ii. However, companies can run a large number of scenarios to determine remoteness

d) A contract that passes the test of significance based on the present value of life contingent cash flows is likely to have passed the remoteness test without further testing

e) The significance of mortality and morbidity can be assessed in the context of other sources of variability; there is a rebuttable presumption that a contract has sufficient mortality risk if the additional insurance benefit varies significantly in response to capital markets volatility

f) This means that annuity and asset accumulation products can be classified as insurance because life or health contingent payments vary based on capital market movements

g) Deferred annuities that give an option to use proceeds to purchase a life contingent annuity at guaranteed rates does not make the annuity an insurance contract, because the annuitization is a separate contract and the option is considered a price risk, not an annuity risk

I. Other components of insurance and investment contracts

1. Identifying market risk benefits

   a. Long duration universal life and non-traditional contracts may contain riders that protect policyholder funds from damaging market funds

   b. If contract features meet specific criteria; they are classified as market risk benefits and are separated from the remainder of the contract and measured separately

   c. Criteria for a market risk benefit

      a) It must protect the policyholder from, and expose the insurer to, other than nominal capital market risk

      b) The evaluation takes into consideration

         i. Protection refers to the transfer of loss in or shortfall (difference between account value and benefit amount) of the account balance from the contractholder to the insurance entity, exposing the insurance entity to the same capital market risk otherwise borne by the contractholder or beneficiary

         ii. Protection does not include the death benefit component of the life insurance contract (the difference between the account value and the death benefit); this requirement does not apply to an annuity or investment contract

         iii. A nominal risk is the risk of an insignificant amount or a remote probability of occurring; a market risk benefit will expose the entity to other than nominal capital market risk if the benefit will vary by more than an insignificant amount in response to capital market volatility

      c) Market risk benefits whether stand-alone or embedded are measured at fair value

         i. Fair value is the price received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date

         ii. Both option and non-option techniques may be used for fair value

         iii. There is a framework for fair value valuation, hierarchy for prioritizing inputs and extensive disclosures

      d) Fair value changes are included in net income when it occurs except for changes in the insurer’s credit risk which is recognized in other comprehensive income

e) If a contract contains multiple market risk benefits, they are combined and measured together as a single value

f) The market risk assessment is performed first after a contract is classified as a long duration universal life or investment contract because market risk benefits are found exclusively in these contracts, especially in deferred annuities

2. Identifying embedded derivatives

   a. Once any market risk benefits are identified, the contract is evaluated for other embedded derivatives or whether it meets the definition of a stand-alone derivative

   b. Contracts or contract features that meet the definition of derivative are valued at fair value

   c. A derivative must meet three criteria

      a) It contains an underlying and one or more notional amounts or payment provisions

      b) It does not require an initial net investment to enter into the contract

      c) The terms of the contract permit or require net settlement or allows for delivery of an asset of similar value

   d. An exception is any contract that compensates the insured based on an insured event is treated as an insurance contract, not a derivative

   e. When a contract has both investment and insurance characteristics and the derivative is not clearly and closely relate to the host contract, then the derivative is considered an embedded derivative; remaining components are treated as insurance or investment contracts

   f. An embedded derivative is separated from the host contract and measured using a fair value technique

   g. Before evaluating a contract for an embedded derivative, it should be checked for market risk benefits

3. Identifying service contracts and service contract features

   a. Contracts issued by insurance companies not considered financial instruments provide non-financial goods and services even where the timing and amount of service is unpredictable

   b. Revenue recognition guidance is an exception to ASC Topic 944 whether an insurance or investment contract

c. If a contract contains both insurance and services, it should be bifurcated; however, claim fulfillment or risk mitigation services of an insurance contract are not bifurcated

d. Examples of activities performed by insurance companies that are considered part of the insurance contract and not bifurcated

   a) Claims adjudication and processing whether the fee is explicit, implicit, or separately billed and administered by a third party

   b) Health insurance activities related to performance of the contract such as enrollment, provider network access, routine physicals, preventive care and wellness benefits, and access to durable medical equipment

   c) Safety inspection—sometimes included in a property/casualty policy as a risk mitigation activity

   d) Roadside assistance--can be considered a risk mitigation activity

   e) Cybersecurity activities—sometimes provided with a general liability policy as a risk mitigation activity

   f) Title search for a title policy

e. Services may also be provided on a stand-alone basis and treated under separate accounting rules (not insurance), such as fee for service arrangements, pension administration, brokerage, and claims handling

   a) It is possible for the separate contracts to be treated differently

   b) The amount of cross-subsidization must be considered to determine whether the contracts should be combined

   c) To be combined and treated as insurance, the interdependencies and non-insurance contracts must relate to the fulfillment of the insurance obligation or mitigation of insurance risk

f. When activities of a combined contract do not fulfill the insurer's obligation or mitigate the insurer's risk, non-insurance are separately measured

g. To bifurcate consideration paid between insurance and service components, the insurer performs an allocation using the five step measurement process

   a) Identify the contract with the customer
   b) Identify the performance obligations in the contract
   c) Determine the transaction price
   d) Allocate the transaction price to the performance obligations in the contract
   e) Recognize revenue when (or as) the entity satisfies a performance obligation

h. Economics are considered when allocating a transaction to components; allocation is based on the consideration that would be received relative to a stand-alone selling price basis

IV. Measurement models

A. Once a contract has been identified and classified, accounting guidance is applied depending on whether the contract is an insurance or investment contract, long duration or short duration, and whether or not it contains a market risk benefit

B. Insurance contracts

1. Assessment of contract duration

a. Determine whether the contract is long duration or short duration

b. Guidance for short duration contract

a) Contract provides insurance protection for a fixed period of short duration (1 year or less)

b) Contract enables the insurer to cancel the contract or to adjust the provisions of the contract at the end of any contract period (such as adjusting premiums or coverage)

c) If the contract is likely to renew or guaranteed renewable, it is a long duration contract

c. Guidance for long duration contracts

a) The contract is generally not subject to unilateral changes in its provisions, such as a noncancellable or guaranteed renewable contract

b) The contract requires the performance of various functions and services (insurance protection) for an extended period

d. Most property and casualty contracts are classified as short duration even if expected to last more than one year because it is underwritten on an annual basis with no significant longer-term relationship anticipated in pricing

e. In life insurance, short term is rarely encountered, except possibly credit life and disability

f. Small group contracts are considered long term due the expectation of a long term relationship

g. Large group contracts are treated short term because they are frequently renegotiated and priced on a short term basis

h. Individual health contracts can be long term or short term depending on contract provisions

i. Noncancellable means the insurer cannot cancel the policy or change premiums for any reason

j. Guaranteed renewable means the insurer cannot unilaterally cancel the policy but can increase premiums under certain conditions such as

   a) Regulatory approval
   b) Adverse experience
   c) Re-rating applies to an entire class, not an individual contract

k. Determination of short duration or long duration is a matter of judgment; considerations are

   a) How frequently are premiums changed

   b) Is it individual or group

   c) Is the contract expected to stay in force for a significant time

   d) Is a large first year commission paid; if so, it indicates a long duration contract

l. Contracts covered under the long duration contract classification include

   a) Universal life type contracts
   b) Participating contracts
   c) Limited pay contracts
   d) Whole life contracts
   e) Term life contracts

m. Contracts that are not treated elsewhere, so they are included as long duration contracts

   a) Contracts offered through an insurer's separate accounts
   b) Deferred annuities with guaranteed minimum benefit features
   c) Contracts with sales inducements
   d) Contracts with multiple account balances

n. Long duration universal life and investment contracts need to identify and separate out market risk benefits and embedded derivatives because they are separated from the contract and held at fair value

2. Short term measurement model

   a. The liability for future claims for short duration contracts is the unearned premium liability

      a) This splits the premium into past and future components; the future component is for insurance services not yet performed

      b) It recognizes premium in proportion to the amount of insurance provided

c) Using gross premium, profits are recognized when insurance is provided

d) If coverage is level, the premium is earned ratably over the period the premium is collected

e) A different pattern of runoff may be established for seasonal risks

b. Unearned premium is accrued for events not yet incurred; ICOS is held for known claim events and IBNR for unknown claim events

a) Claim liabilities may continue long after the coverage period

b) A claim liability for future payments due on insured events arising from short duration contracts

c) Payments may be discounted

c. A premium deficiency may also be needed

3. Long duration measurement models

a. A measurement model for liabilities is needed

b. Three model types

a) Traditional and limited payment contracts
b) Universal life type and nontraditional contracts
c) Certain participating life insurance contracts

c. Traditional and limited payment contracts

a) Description

i. Traditional insurance contracts have premiums and benefits that are fixed and guaranteed over the life of the contract

ii. Liabilities are measured applying the net level premium reserve methodology using cash flows over the life of a contract

iii. The liability can be disaggregated into two or more pieces

iv. A deferred premium liability may be required if the premium payment period is shorter than the coverage period

v. The liability for future policy benefits (the reserve) is calculated on a group basis

vi. Cohorts are contracts with similar characteristics that do not exceed one year

vii. Cohort distinctions can be based on demographic factors or key policy features

b) Liability for future policy benefits

i. Liabilities are measured using the net level premium reserve methodology using cash flows over the life of a contract

ii. The net premium ratio to calculate a reserve at time *s*

$$NPR_S = PV_0\ (\textit{lifetime benefits and nonlevel expenses}) \,/\, PV_0\ (\textit{lifetime gross premiums})$$

where

PV_0 = incorporates all cash flows up to time *s* and future cash flows after time *s* on a group of policies calculated at inception

iii. Non-level expenses are non-recurring expenses that occur after the premium paying period

iv. The net premium ratio is updated to reflect actual experience and current future assumptions

v. When the net premium ratio changes, reserves are remeasured, and the change is reported in net income

vi. Assumptions are updated at least annually, unless more frequent updates are needed

vii. Historical data is updated when assumptions change

viii. Companies have the option whether or not to update expenses on an entity wide basis

ix. The net premium ratio may not exceed 100%; it cannot be greater than premiums paid by the policyholder

x. No reserve for any cohort can be less than zero

xi. The discount rate used to determine the net premium ratio is locked-in during the life of a cohort based on upper medium grade, low risk, fixed income yields that reflect the duration for the liability for future policy benefits

xii. The net premium ratio uses market observable information rather than a rate tied to assets held by the insurer

xiii. The reserve V_s is calculated as

$$V_S = \text{PV}_s\,(\textit{lifetime benefits and nonlevel expenses}) - NPR_s \times \text{PV}_s\,(\textit{lifetime gross premiums})$$

xiv. The calculation is performed first with interest rates locked-in when the cohort was established

xv. The change in reserve is reflected in net income; this includes remeasurement gain/loss which measures changes to best estimate cash flow assumptions and actual experience (and resetting the net premium ratio)

xvi. Remeasurement gain/loss is recoded in a separate income statement line

xvii. Discounting is performed a second time using current discount rates based on upper medium grade, low risk, fixed income yields observable on the valuation date

xviii. This liability is recorded on the balance sheet

xix. The difference between the two discount rate calculations is recorded in accumulated other comprehensive income, not net income

c) Deferred profit liability

i. A deferred premium liability is established if the premium payment period is shorter than the coverage period

ii. It is the accumulated value of the difference between gross premiums and net premiums less accumulated amortization

iii. It is calculated consistent with assumptions for the net premium reserve on whole life policies, including limitations on policy related expenses

iv. The discount rate is aligned with the locked-in discount rate

v. There is no adjustment in other comprehensive income to bring the deferred profit liability to current interest rates

vi. Typical products with these features are single premium immediate annuities and pension transfer contracts

vii. The liability is amortized into income based on the expected amount of insurance in force (life and health insurance) and expected future benefit payments (annuities)

viii. Cash flow assumptions used to determine the deferred profit liability are updated at least annually with historical experience and future cash flow assumptions

ix. The liability is amortized to the reporting date

x. The change in the deferred profit liability is recorded in the income statement

d. Universal life type contracts and non-traditional contract benefits

a) Universal life type contracts are long duration contracts with terms that are not fixed and guaranteed

b) The liabilities for policy benefits applicable to universal life policies are

i. Account value or accrued account balance
ii. Additional liability for other contract features (including annuitization benefits)
iii. Unearned revenue liabilities
iv. Sales inducement liabilities
v. Premium deficiency liabilities (including a liability for profits followed by losses

c) Market risk benefits and embedded derivatives may be present

d) Guidance may also apply to investment contracts, including most deferred annuities

e) Account value

i. The primary liability is the account value

ii. Account value is the balance that accrues to the benefit of the policyholder before deduction for surrender charges and includes the following elements

a) Deposits net of withdrawals
b) Amounts credited
c) Fees assessed
d) Additional interest (persistency bonus)
e) Other adjustments (credited interest)

iii. If a contract has multiple account values, the reported account value is the highest determinable amount payable to the policyholder in cash

iv. Old product designs do not have account values but are still treated as universal life contracts because they use a proxy account value

v. For fixed index annuities and registered index linked annuities, the sum of the host contract and embedded derivative may exceed the account value

f) Additional liability

i. An additional liability may be required in addition to the account balance based on expected product profitability and embedded insurance features; the features are not market risk benefits or embedded derivatives which are determined prior to this evaluation

ii. Identification

a) Whether an additional liability is needed for death or insurance benefits depends on the size and timing of the expected benefits relative to expected assessments

b) If there are early year profits followed by losses, an additional liability is required

c) The determination is made for each contract at inception and is not reassessed

d) For annuitization benefits, an additional liability is required if, at the expected annuitization date, the expected value of annuitization payments exceeds the expected account value

iii. Liability determination

a) Liability is determined by applying a benefit ratio to the contract charges over the period the liability is measured

b) Benefit ratio calculation

Benefit ratio = PV_0 (*excess benefits*) / PV_0 (*assessments*)

c) Excess benefits are expected benefit payments in excess of account values over the life of the contract

d) Assessments are the aggregate of all policy charges (expense, mortality, surrender)

e) The benefit ratio may exceed 100%

f) The additional liability on the valuation date is the historical assessments multiplied by the benefit ratio (calculated using historical and future cash flow expectations) less the accumulated value of all excess benefits

g) A similar formula applies to annuitization benefits; replace excess benefits with annuitization benefits

iv. Assumptions

a) Current assumptions are used

b) The discount rate used to determine the benefit ratio is the contract (crediting) rate

c) The company can use a locked-in rate at contract inception or the latest revised rate, but the chosen rate must be applied consistently at every valuation date

g) Unearned revenue liability

i. When universal life contracts assess expense charges to compensate the entity for future services, an unearned revenue liability is established in addition to account value

ii. Common when front end fees are collected for a shorter period of time than the period the contract is subject to underwriting risks

iii. Unearned revenue

a) Is accrued as charges are collected

b) Amortized in a manner consistent with deferrable costs

iv. It is similar to profits followed by losses, but does not require future losses

v. It is normally used for up-front charges and fees explicitly stated in the contract

h) Sales inducements

i. Sales inducements are explicitly defined in a policy and provide incremental returns, not supported by current market conditions

ii. Three types are immediate bonuses, persistency bonuses and enhanced crediting rate bonuses

iii. A liability for sales inducements is established over the period of time the policy must persist to qualify for the inducement

iv. Immediate and enhanced crediting rate are already added to the account value when earned

v. Persistency bonus accrual is not defined in the guidance; many methods are acceptable provided it does not anticipate future policy terminations

vi. If the inducement satisfies certain criteria, a sales inducement asset is set up to offset the sales inducement liability; the asset is recognized over the life of the underlying policies

i) Premium deficiency liability

i. A premium deficiency is established if there is a probable future loss

ii. It is determined when an entire line of business is deficient

iii. This is a group of contracts that are consistent with the way they are acquired, serviced and valued

iv. It does not apply to traditional and limited pay contracts because net premiums cannot exceed gross premiums, enforcing the test at a cohort level

v. The test compares aggregate liability against gross premiums using either a gross premium liability test or an assessment of the present value of projected, pre-tax GAAP book profits

vi. Gross premium liability test

a) If the gross premium liability is greater than the aggregate liability held, the net difference is the additional liability held

b) The aggregate liability is the sum of all liabilities (account value, unearned premium, additional liability) reduced by the present value of future profits

c) Embedded derivatives and market risk benefits are excluded because they are recorded at fair value; fees for these benefits are also excluded

d) DAC assets are not used

e) The discount rate is a best estimate of investment earnings on liabilities which include the current rate and expected future rates on invested assets

vii. GAAP book profits test

a) Projected pre-tax GAAP book profits are discounted back to the reporting date; if negative, a premium deficiency is required
b) DAC is not used

viii. The present value of profits from a business combination needs to be reviewed for recoverability

a) If not, they must be written down
b) This applies to traditional and limited pay contracts

ix. A liability is set up for situations where profits are followed by losses; there are two approaches

a) Ratably accrue profits until losses are likely to begin

b) Accrue profits until a loss recognition event occurs (generates a smaller liability)

x. The chosen method should be applied consistently

xi. Premium deficiency or profits followed by losses must be reassessed each reporting period using current estimates; the method must beconsistently applied

e. Assumptions for long duration contracts—traditional and universal life type contracts

a) Contracts require assumptions to determine premiums received from and benefits paid to policyholders

b) Cash flow assumptions

i. Typical assumptions needed to project future benefit and premium cash flows

a) Mortality
b) Morbidity (incidence rates, claim costs, continuation rates)
c) Termination rates
d) Premium levels
e) Expenses (non-level costs only)

ii. Assumptions are based on the entity's current view (best estimate) and do not include a provision for adverse deviation

a) Assumptions are updated annually

b) Observed experience is used; outside experience can be used if observed experience is not credible

iii. Expense assumptions are limited to non-level, non-acquisition costs, costs after the premium paying period, and expected inflation

iv. Expenses within the reserve do not include the following

a) Expenses related to investments
b) General administration costs
c) Policy maintenance costs
d) Product development / market research costs
e) General overhead

c) Discount rate

i. The impact of changes to the discount rate on traditional contract reserves is reported in other comprehensive income, not net income

ii. Two discount rates are needed each reporting period

a) The locked in discount rate
b) The current interest rate

iii. Both are based on observable yields either at issue (locked in rate) or at the current reporting date (current rate)

iv. They are based on upper middle grade, low risk, fixed income yields using liability duration

f. Participating life contracts

a) Participating life insurance is a long duration contract issued by insurance companies in which the experience of the company is shared with policyholders through dividends

i. Dividends can be annual or terminal

ii. Experience sharing is based on the contribution principle in which investment, mortality and expenses are separately identified and shared across classes of policyholders in proportion to their contribution to these gains

b) Participating contracts use a separate measurement model which is based on statutory reserving principles

i. There is no direct recognition of dividends
ii. No lapses are assumed

c) Scope

i. Criteria to be considered participating

a) Contract must be long duration that expects to pay dividends to policyholders based on actual experience of the entity

b) Annual dividends are paid from identified distributable surplus using the contribution principle

ii. Entities are required to use the participating contract model for accounting are mutual companies, fraternal benefit societies and stock subsidiaries of mutual holding companies

iii. Stock companies can elect the participating model or the standard long duration model for its participating contracts

iv. Participating contracts are treated as universal life type contracts if it has any of the following features

a) Policyholder may vary premiums within contract limits and without insurer consent

b) Contract has a stated account balance that is credited interest and deducts expenses and cost of insurance

c) Entity expects to make individual changes to contract elements (primarily investment); changes are not made to all contracts on a group basis

d) Liability for future policy benefits

i. The total liability for participating contracts is the sum of

a) Net level premium reserve for all death and endowment benefits

b) Terminal dividend liability

c) A premium deficiency reserve, if needed

d) Policyholder dividend obligation, for closed blocks resulting from demutualization.

ii. The net level premium reserve for participating contracts is based on the determination of net premium

iii. The net level premium ratio for participating contracts is calculated at contract issue and is a level percentage based on a proportion of benefits over the life of the contract to the maximum guaranteed gross premium

iv. There is no updating of net premium after issue based on actual results or change in assumptions

v. Assumptions in the determination of net level premium are

a) Dividend fund interest rate

b) Guaranteed mortality rates used in calculating cash surrender values

vi. If the dividend fund interest rate is not available

a) Use the cash surrender value interest rate

b) Otherwise, use the NAIC interest rate for calculating minimum cash surrender values

vii. Terminal dividend liability is determined if payments are probable and reasonably estimated; the liability is accrued over the life of a contract on a constant level basis, consistent with DAC amortization

viii. Deficiency reserves are assessed periodically using current estimates; the gross premium liability using current assumptions is compared to the net level premium reserve plus the terminal dividend liability, and, if positive, is posted as a liability

e) When a mutual company demutualizes, policyowners become owners of the company

i. To compensate them for business earnings, the business is walled into a closed block and separately monitored so that profits on this business can be used for future dividends

ii. The mechanism is used to track and pay dividends is the policy dividend obligation, which represents experience gains that will be repaid to closed block policyholders as dividends

4. Claim liabilities

   a. Claim liabilities are the provision for the unpaid portion of claims oincurred on the valuation date

      a) They are established when events occur or assumed to occur whether they have occurred or not

      b) Four categories

         i. Disabled life reserves
         ii. Incurred but not reported claims (IBNR)
         iii. Claims in the course of settlement (ICOS)
         iv. Liability for claim settlement expenses

      c) Estimation techniques are used due to uncertainty around unknown claims; liabilities are updated based on assumption changes

      d) Claim liabilities provide for the costs of settling claims including legal and adjuster fees

   b. Short duration claims liabilities

      a) There is diversity in practice; some companies report disabled lives in one line and all other claim reserves in another; other companies take the unaccrued portion of IBNR and put it with the disabled life reserves

      b) Claim liabilities are estimates that require judgment

      c) GAAP does mot prescribe techniques; practitioners may use lag tables based on historical data or loss ratios

      d) Consider discounting for claim liabilities unless clearly immaterial

   c. Long duration universal life type contracts

      a) Claim liabilities are calculated separately from policy benefits
      b) It may be appropriate to discount claim liabilities

   d. Long duration traditional contracts

      a) The measurement of claim liabilities is incorporated into the reserve calculation in a unified measurement model

      b) Measurement includes all cash flows from inception to claim

      c) Assumptions during claim are the same as prior to claim

      d) Contracts in claim continue to be valued in their original cohort

      e) For presentation purposes, companies may separate claim reserves from active lives or report them in the aggregate

5. Riders

    a. A rider is an optional feature that adds additional insurance features attached to an insurance policy

    b. Riders

        a) Have their own premiums, cost of insurance rates and cash values

        b) Can be added at contract issue or later

        c) Can be terminated without terminating the policy

    c. Riders can be defined at issue

        a) In relation to the base contract; GAAP combines the contract and the rider

        b) Separate from the contract; GAAP accounting treats as separate contracts

    d. GAAP treatment of a rider issued at contract issue

        a) If related to base contract, combine rider with base contract

        b) If separate from base contract, treat as a separate contract

    e. GAAP treatment of a rider issued after contract issue

        a) If related to base contract, combine with base contract and determine whether the contract is substantially changed and treated as an internal replacement

        b) If separate from base contract, treat as a separate contract

C. Investment contracts

1. A contract that fails as an insurance contract is usually treated as an investment contract

    a. There is little guidance dealing with the measurement of investment contracts

    b. Guidance states these contracts should be accounted as consistent with interest bearing or other financial instruments

    c. However, DAC assets are explicitly covered in GAAP guidance

2. Types of investment contracts

   a. Contracts that promise to make payments not consistent on any insured event in return for an initial consideration or periodic payments

      i. Examples: settlements of deferred annuities, non-life contingent annuities

      ii. The prescribed method is the interest method

      iii. Interest method determines liability by accumulating the deposit amounts at an effective rate of interest less benefit payments made

      iv. Effective yield is the single, flat rate that equates actual and expected future deposits with actual payments and expected future payments on the contract over its lifetime

      v. If changes occur in cash flows, the effective yield is redetermined at the next measurement date

   b. Account value-based contracts without life contingencies

      i. Examples: fixed deferred annuities without life contingencies, institutional investment contracts

      ii. The account value-based model is used; the main liability the account value

      iii. This is consistent with universal life type accounting

   c. Contracts with insurance risk without sufficient underwriting and timing risk to meet the insurance standard

      i. The deposit method of accounting is used

      ii. Contracts can be considered a financing arrangement similar to a loan that takes into account the time value of money

U.S. GAAP, CHAPTER 4

EXPENSES

I. Purpose is to identify how expenses are recognized and measured

II. Background

A. The process of deriving expense assumptions and allocating and quantifying actual expenses has a significant impact on income recognition

B. Expenses are recognized when cash is disbursed, or liabilities are accrued

C. Qualifying expenses are deferred to future periods by capitalizing expenses as assets and amortizing them

D. Expenses deal with expenses other than benefit payments

III. Categorization

A. Expenses are allocated to categories to align with appropriate accounting treatment

B. Certain expenses are expensed as incurred such as

1. Investments
2. General administration
3. Policy maintenance
4. Product development
5. Market research
6. General overhead

C. Types of expense and GAAP impact

1. Deferrable acquisition—capitalize and amortize
2. Non-deferrable acquisition—expense as incurred
3. Direct maintenance—expense as incurred
4. Investment expense—expense as incurred
5. Overhead—expense as incurred
6. Claim settlement / Loss adjustment expense—accrue within the liability for future policy benefits for long duration contracts, and within the case/claim reserves for short duration contracts

D. Deferable acquisition costs

1. Acquisition costs are associated with the sale of insurance products or long duration investment contracts

2. If certain criteria are met, the costs can be established as an asset and amortized into net income over the lifetime of contracts that created deferrable costs

3. The deferred acquisition cost asset (DAC) refers to capitalized expenses remaining on the balance sheet at the reporting date

4. Criteria for acquisition costs to be deferable costs

    a. Acquisition costs may be deferred only if directly related to acquisition of new or renewal insurance contracts

    b. Deferable acquisition costs

        i. Incremental direct costs of contract acquisition

        ii. Portion of employees total compensation (excluding capitalized commission) and payroll related fringe benefits related directly to time spent performing

            a) Underwriting
            b) Policy issue and processing
            c) Medical and inspection
            d) Sales force contract selling

        iii. Other costs related directly to acquisition activities that would not have been incurred had the contract acquisition not occurred

5. Companies may incur costs that do not meet the conditions for deferable acquisition costs, such as expenses incurred that cannot directly tied to aa successful sale

6. Analysis and judgment do not rely on what an expense is called, but whether the expense is incremental to the sale of a policy and directly related to a successful sale

7. It is expected that companies will apply these judgments consistently

8. Examples of deferable acquisition costs

    a. Whether an expense is deferable depends on the characteristics of the expense under consideration

    b. Commissions

        i. Commissions paid to agents meet the deferability requirements because

            a) They are directly related to the issue of new business

            b) They are associated with a successful sale

        ii. For short duration contracts, the entire commission qualifies as a deferred expense

iii. For long duration contracts, the excess commission over an ultimate commission is deferable; the balance is a direct maintenance expense

a) Ultimate commissions are based on insurance coverage period and commission schedule

b) Limited pay life commissions are fully deductible because commissions are not recurring in nature

iv. For traditional and participating whole life policies with commissions over the lifetime of the contract, compare commission rates, not absolute dollars paid

v. For other products, additional analysis is required to ensure commissions are non-level

vi. Flexible premium policies only pay commissions if a premium is paid; deferrable commissions are the excess commission multiplied by target premium (less common is to use the projected ultimate premium)

vii. Agent financing is a loan or commission advance secured by the agent or future commissions

a) Agent financing costs are capitalized but accounted for as receivables

b) It is only included in DAC when earned

viii. Some companies have a vesting schedule which results in a declining commission schedule and a lower ultimate commission rate

ix. Fund based commissions exist on nontraditional contracts

a) If commission is based on a level percentage of fund value which increases over time, commissions are not deferable

b) If commissions are non-level, commissions paid may be deferable

c. Expenses similar to commissions

i. Volume bonuses, sales bonuses, and sales conventions, if based on new production, qualify as deferable expenses and capitalized

ii. Renewal incentives are more complex, and each situation depends on specific facts and circumstances

iii. Commission overrides based on premium may qualify for deferability if the person receiving the override performs activities directly related to sales

iv. Salaried employees with sales-based bonuses may be deferrable if they are involved in sales administration and illustrations, but not deferrable if they are involved in training

v. If agency expense allowances and expense reimbursements (even if they vary based on sales) are indirect costs, they are expensed as incurred and not available for deferral

vi. If a sales force is on salary, some costs may be deferable based on employee contribution to successful sales

d. Home office expenses

i. Marketing and selling expenses are not deferable because they are not directly related to successful sales; selling expense may be deferable

ii. Direct response advertising expense is deferable if two conditions are met

a) The primary purpose of the advertising is to elicit sales to customers who respond to the advertising

b) The direct response advertising results in probable future benefits; the company must show benefits exceed marketing costs historically

iii. Most underwriting expense on successful sales is deferrable, including salaries, benefits, immediate supervision, administrative assistants, medical and paramedical exams and inspection reports

iv. Policy issue expenses are deferrable; documentation of the nature of these activities and how essential they are to successful sales is required to support deferability

v. Home office functions that support other functions that are deferable, may also be deferable (illustrations and tracking agent performance); documentation of the nature of these activities and how essential they are to successful sales is required to support deferability

E. Non-deferrable acquisition costs

1. Defined as all acquisition and retention costs that do not meet deferability criteria

2. Examples are rate books, institutional advertising, dividend and reserve development on new products

3. These expenses are not capitalized; they are expensed in the period incurred

4. Recruiting and training allowances are considered developmental and usually classified as non-deferrable

F. Direct maintenance costs

1. Maintenance costs are costs associated with maintaining records relating to insurance contracts and the processing of premium collections and commissions

2. Maintenance expenses are expensed as incurred but not included in reserves

3. Non-level costs are not maintenance costs

4. When associated with long duration contracts, direct maintenance costs are included in the liability for future policy benefits

G. Investment expenses

1. Investment expenses include

   a. Internal investment department expenses
   b. Expenses of investment advisors
   c. Investment transaction costs

2. They cannot be capitalized

3. They are recognized in the period incurred as a reduction to investment income

H. Claim (loss) adjustment expense (LAE)

1. Reserves are held for the non-level expenses incurred in settling claims

2. For long duration contracts, a provision is held in the liability for future policy benefits for termination and settlement costs

   a. The provision remains as contracts enter claim payment status

   b. The assumption can be locked in at issue or updated periodically

3. When a contract enters claim status, an LAE reserve is recorded for the ultimate cost of incurred claims on the reporting date

   a. Applies to both long and short duration contracts

   b. For short duration contracts, this assumption is updated each measurement period

   c. For long duration contracts, the assumption is also updated unless an election was made to lock-in the assumption

4. When assumptions are unlocked, two buckets can be used

    a. Allocated loss adjustment expense (ALAE) are payments are directly associated with a specific claim that can be reliably estimated (legal fees)

    b. Unallocated loss adjustment expense (ULAE) are expenses not directly associated with a specific claim, but will be incurred during claim settlement (overhead)

    c. For long duration contracts, LAE must be assigned to cohorts to calculate the liability for future policy benefits, especially when claim reserves are calculated separately from active life reserves

    d. If the assumption is locked in, the rates never change

I. Overhead

1. Overhead is an indirect cost
2. It is any expense not otherwise classified
3. Costs are expensed as incurred

IV. Other issues related to acquisition costs and amortization

A. Timing of deferability--the deferral of expenses must correlate with incurral and recording of actual expenses in financial statements

B. True-up

1. The amount of capitalization should equal deferable expense costs recorded in the financial statements

2. A reconciliation to actual incurred is necessary

3. This can occur when models used to defer and amortize DAC come from a different system than the general ledger

4. These true-ups are expected to be small; otherwise it calls into question the linkage between incurred expenses and the successful sale of a policy for deferral

5. Incurred expense should also align to the policy they came from; this reduces the need to allocate

C. Commission timing

1. The timing of commissions capitalization must be consistent with the recognition of commissions as a cost in the income statement (capitalize when incurred)

2. If an asset is established for a premium due and unpaid on which a commission is due, a liability is created for the corresponding commission

3. If the commission qualifies as a deferred expense, it is added to DAC; otherwise, it is a current period expense

4. In practice, companies calculate the deferable commission liability by taking the change in the due and unpaid for a cohort and multiply it by an average deferral percentage

D. Recoverability testing and loss recognition

1. Recoverability testing does not apply to deferable acquisition costs

2. Loss recognition for the GAAP liability on the balance sheet does not include the DAC asset

3. A DAC asset is recorded whether or not there are sufficient future profits to recover the deferable acquisition costs

E. Definition of amortization basis

1. Amortization of DAC is determined by contract classification

2. For short duration contracts, amortization follows the premium and coverage period

3. For investment contracts, the interest method is used to amortize DAC; DAC is amortized as an adjustment to the investment yield on the contract

   a. One approach is to use two level yields

      i. The first yield equates considerations to fund the contract with expected outflows over the life of the contract

      ii. The second yield is the same as the first except considerations are net of deferable acquisition costs

      iii. The liability for the policy is the accretion of historical cash flows using the first yield

      iv. The DAC balance is the difference between the policy liability and a liability net of DAC calculating by accruing historical cash flows using the second yield

   b. Because deferable expenses are modest, simplified methods are used in practice

4. For long duration contracts and investment contracts with high surrender charges or non-fund income, deferable expenses are amortized on a constant level basis over the life of the contract
   a. Interest is not applied
   b. A straight-line pattern is anticipate either by amortizing DAC on a straight line basis or using a grouped approach that approximates a straight line basis
   c. Assumptions align with the liability for future policy benefits
   d. The constant level basis
      i. Is the expected term of the policy, not the maturity date
      ii. May change each reporting date; it is not locked-in
      iii. Includes the claim payment period but not the annuitization period
5. If the induvial basis is selected, amortization is performed on a straight-line basis over the expected term of each contract
6. If a grouped basis is used
   a. It must align with groups used to calculate the liability for future policy benefits or other liability measure
   b. The pattern aligns to the straight-line pattern under the individual basis
   c. It is determined on a constant level basis that approximates a straight line
   d. A quantitative materiality analysis of the approximation is not required
7. Reasons for differences between the individual and grouped approaches
   a. Under the individual model, when a policy terminates its DAC is written off
   b. In a grouped contract approach, terminations are already built in; no additional DAC is written off when a contract terminates
   c. An individual approach amortizes DAC more quickly than on a grouped method
8. What constitutes a constant level basis
   a. The simplest basis is policy count, but it fails to provide a weighting within a cohort for contract size and contribution to DAC balance
   b. Face amount and deposit amounts are other possible measures because they have a direct relationship with the deferable expense and to the expected term of the policy

9. Under the grouped approach, contracts must be evaluated to align with the straight-line approach when terminations are greater than expected to ensure that DAC does not exist on terminated contracts; if terminations are less than expected, no reduction is recorded

10. Guidance is silent for how current period experience is treated

    a. It can be ignored until actual experience is known, but a true-up may be expected

    b. Match expected terminations with actual terminations and no true-up is needed

F. Examples of amortization--Approaches to DAC calculation

1. Short duration insurance contracts

    a. Deferable expenses on short duration contracts are incurred as a level percent of premium received

        i. The DAC balance on the reporting date is the liability for unearned premiums multiplied by the deferral percentage

        ii. In this way, deferable expenses are recognized into income in direct proportion to premium earned

        iii. The method works irrespective of the premium frequency

        iv. If there is no unearned premium, there is no DAC asset

    b. An alternate method is needed if the commission is paid up front and premiums are monthly

        i. If earned premium is level during the policy term, DAC amortization can be determined as the deferable expense multiplied by the premium earned in the period and divided by the sum of the earned premium

        ii. If the expectation of earned premium changes over the life of the policy

            a) The ending DAC balance at the end of each quarter is determined using updated assumptions for the future

            b) DAC amortization is the difference between starting and ending DAC balances less expenses deferred in the period

            c) This method is very general and can be used for many situations including changes in deferable expenses

2. Long duration contracts

   a. This applies to long duration insurance contracts and investment contracts that include significant surrender charges or yield significant revenues from non-fund sources

   b. Two types of amortization

      i. Straight line basis at the individual contract level

      ii. Constant level basis that approximates a straight line on a grouped contract basis

   c. Individual contract basis

      i. In straight line amortization, DAC amortization is not a level dollar amount unless the expected and actual termination rates are zero

      ii. The survival rate in the individual changes the expected future lifetime by something less than one year and the amortization in the next year changes as well

      iii. DAC is calculated prospectively by taking the end of the prior year DAC balance, add new deferable expenses and divide by the expected future lifetime of the contract at the beginning of the year; this is the straight line amount for the current year

      iv. The process does not change if termination rates change

      v. DAC balance is written off entirely when the contract terminates

   d. Grouped contract basis

      i. Amortization using a grouped method requires use of a constant level basis that approximates straight line amortization applied at the individual contract level

      ii. A schedule is used to create an expected measure of the constant level basis selected at future dates

      iii. The constant level basis can be face amount

      iv. DAC is amortized based on the pattern provided by allocating amortization to future periods based on the weighting of each period's inforce to the sum of the projected inforce over the life of the cohort

      v. The calculation is prospective with no look-back to previous constant basis methodology, prior period DAC balances, or deferrable expense incurral pattern

vi. DAC amortization in any period is calculated as the beginning of the year inforce amount for that period divided by the sum of current and all future inforce amounts multiplied by the beginning of year DAC balances and new deferrable expenses

vii. This allocates the amortization of the DAC balance in any period to the weighting of that period's inforce relative to all future inforce amounts

viii. To check for reasonableness of this approximation, compare DAC amortization to the amortization of a single policy

ix. While the approximation may be reasonable to a straight-line amortization under GAAP, it is not identical to the individual method applied to each contract in the cohort

x. When an individual contract terminates under the individual method, all of its DAC is written off even if termination were fully anticipated in the assumptions

xi. The result is that DAC is written off faster on an individual contract basis than on a group contract basis due to elimination of DAC on individual contracts when they terminate on an individual contract basis

G. Additional deferable expenses

1. Future deferrable amounts are recognized as incurred

2. When incurred, they are evaluated for deferability

3. The amortization method does anticipate or reflect these expenses until incurred and evaluated for deferability

4. The calculations used for additional deferable expenses are identical to deferable expenses incurred at policy issue

5. The calculation is prospective, with the prior period DAC balance, increased by new deferrals, amortized in proportion to the inforce amounts allocated to future periods

H. Experience differences and assumption changes

1. DAC amortization changes prospectively if terminations or future assumptions change

2. Under the group contract approach, current period DAC amortization may be impacted by experience differences and future assumption changes

3. The impact depends on whether

   a. The current period information, including experience results and future assumption change, are used to determine the expected term of the contracts at the beginning of the year

   b. The current period is ignored

4. Both methods are allowed, but must be used consistently

5. If actual experience in the current period is fully incorporated into the termination assumptions at the beginning of the period, a true-up to adjust for excess terminations is not needed; otherwise a true-up is needed

I. Investment contracts

1. Investment contracts that do not include significant surrender charges or yield revenues from non-fund sources, DAC is amortized at a constant rate consistent with the interest method

2. This method uses a break-even interest rate or internal rate of return to derive the reserve and DAC based on the cash flows of the underlying contract

3. The contract liability on any date is the present value of future benefit payments discounted at the internal rate of return related to the gross premium

4. The net liability is the contract liability less DAC and is calculated as the present value of future benefit payments discounted at the internal rate of return using premium net of deferable expenses

5. The net liability reflects implicit amortization of the original DAC in a levelized manner over the life of the contract

6. The DAC asset on any valuation date is the contract liability less the net liability; it is recorded on a separate balance sheet line from the contract liability

V. Sales inducements

A. Characteristics of sales inducements

1. A sales inducement is an inducement explicitly mentioned in the contract that are in excess of market conditions

2. Sales inducements that meet certain criteria are deferred and recognized as an expense similar to DAC

3. Since a sales inducement is not an acquisition cost, it is reported separately from DAC

4. Typical forms of enhancement in long duration investment products and universal life type products

   a. Bonus interest—an extra interest rate is credited for a period of time usually immediately following issue of a policy or receipt of a deposit

   b. Day one bonuses—immediate increments to cash value at policy issue or when a deposit is received

   c. Persistency bonuses—paid subsequent to policy issue in many forms to reward the policyholder for persisting

5. All enhancements are benefits beyond normal operation of the contract

6. A liability is established until the earlier of the day the contract terminates or the day the enhancement is paid

7. An asset to defer recognition of a sales inducement asset is explicitly defined in the contract and meets the following criteria

    a. Amounts credited under the inducement are incremental to amounts credited on similar contracts without the inducement

    b. Amounts credited are higher than the contract's expected ongoing crediting rates after the inducement

8. For bonus interest and enhanced crediting rates, the company must offer a similar contract without a sales inducement

9. For persistency bonus and day one bonuses, the bonus is paid on a specific date; therefore it is incremental to contracts with different anniversaries

B. Computation of sales inducement liabilities

1. Day one bonuses and enhanced crediting rates are automatically recognized because they credited immediately; however, amounts accrued, but not yet credited, must be recognized

2. Because persistency bonuses are not credited until after the vesting period, a liability is established and added to the account balances for recognition

3. Liability accrual should be performed ratably with no allowance for surrender decrements

    a. No method is prescribed, but possible options are

        i. Straight line over the persistency period
        ii. A level percentage of the account balance
        iii. A level percentage of assessments

    b. Liability accrual should converge to the final amount credited

        i. This can be accomplished by defining the liability relative to the ultimate, projected enhancement rather than define an accrual amount explicitly

        ii. Each period's accrual should tie to the accretion of interest on the account value

c. Accruals of liabilities not incorporated in the account balance are contained in the liability for policy benefits

   i. Increases in the liability and crediting of bonuses is included in the benefit payments

   ii. The accrued liability drops to zero when the benefit is paid

C. Computation of sales inducement assets

1. For sales inducements that meet the criteria for deferability, a sales inducement is established and amortized using the same methodologies as DAC

2. The capitalization element is calculated as

   a. The change in the accrued sales inducement liability for the cohort, plus

   b. The persistency bonus actually paid or credited

3. A variation of his approach is to eliminate interest from the deferral

4. The amount amortized is the beginning of year asset balance multiplied by the ratio of the current inforce divided by the sum of the period's inforce plus all future periods in force

5. The impact of sales inducement accounting is to spread the cost of the sales inducement over the life of the policy

VI. Special expense issues

A. Internal replacements

1. If there is unamortized DAC in a contract at the time it is substantially changed

   a. DAC is released if an individual contract basis is being used, or

   b. The basis for that contract is released consistent with a contract termination if a grouped basis is being used

2. Expenses may be incurred when replacing existing contracts or if a contract is substantially changed

3. If the expenses meet deferral criteria for acquisition costs, they are deferred and amortized as DAC

4. If a sales inducement is introduced as part of the replacement, a liability is recognized for the sales inducement and is deferred and amortized if it qualifies

B. Reinsurance

1. Proceeds from reinsurance that reimburse a company for costs that are deferred and amortized reduce the recorded DAC asset

2. Ceding commissions ma be greater than acquisition expenses incurred

    a. This can result from front loading income recognition

    b. Facts and circumstances are used to consider proper treatment

    c. Common approach is to offset DAC to the extent ceding commission is aligned with acquisition costs and create an additional liability to defer recognition of the excess

3. If a company cedes business and does not receive reasonable compensation for servicing the policies, the ceding company accrues a liability for the extra servicing costs; there is no guidance for calculating this liability