U.S. TAX RESERVES *for* LIFE INSURERS

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CHAPTER ONE

Statutory Basis Reserves Generally

1.1 THE NATURE AND PURPOSE OF RESERVES IN THE INSURANCE COMPANY ENVIRONMENT

Reserves are required in order to properly measure the economic income of an insurance company and to ensure the company's solvency. In this context, reserves serve three critical purposes.

The first reason is that most contracts issued by life insurance companies provide benefits for an extended time. Universal life, whole-life contracts, endowment contracts, annuity contracts, and non-cancellable or guaranteed renewable accident and health insurance contracts all are long-duration contracts that extend for many years into the future. The insurance policy is a "promise to pay" future benefits if and when particular events occur, and these events can occur many years later. Thus, insurance companies are required by state regulation to establish significant liabilities (reserves) according to rules that estimate those future benefits, usually discounted at interest. This helps to assure regulators that the company has sufficient assets to pay future claims.

The second reason relates to the timing of the premium payments. An insurance company may receive level premiums even though benefits are not expected to be paid evenly. In other types of policies, such as flexible premium universal life policies, a policy owner may pay a premium that is sufficient to fund future charges under the policy. Because premiums are recognized as revenue when received, an offsetting liability must be established in order to appropriately measure the company's income. Otherwise, a company would have too much income when it receives a premium and too little income when it pays a benefit. One purpose of a reserve, therefore, is to appropriately match income with benefits.

The third reason relates to asset accumulation products, such as group pensions or annuity contracts. The valuation of liabilities for these types of obligations can be similar to valuation of deposit liabilities. However, where such liabilities depend on survivorship, the valuation of such liabilities must take into account valuation approaches that involve life contingencies.

1.2 THE IMPORTANCE OF RESERVES IN DETERMINATION OF EARNINGS AND TAXABLE INCOME

Insurance is regulated state by state in the United States. Each state has its own regulatory framework, generally led by an insurance commissioner. Insurance commissioners oversee the financial condition of insurance companies doing business in their jurisdictions and therefore require meaningful financial, statistical, and operating information about the companies. This financial oversight is designed to ensure that policyholders and claimants receive the promised benefits from the poli-

cies they purchased, often years or decades prior to when the benefits are due. In recognition of these special responsibilities, statutory accounting principles (SAP) have been established by statute, regulation, and practice. Every insurance company doing business in a state must file an annual statement. The annual statement for each company contains a set of required financial statements calculated according to the state regulations and prescribed accounting methods. The various state rules are quite similar because they are coordinated by the National Association of Insurance Commissioners (NAIC).

Beginning in 2001, the NAIC adopted the *NAIC Accounting Practices and Procedures Manual* (APPM) for codification purposes—to establish a comprehensive basis of accounting that must be followed. The APPM, however, does not preempt state legislative and regulatory authority that differs from the APPM. Thus, while the APPM is expected to be the foundation of a state's statutory accounting practices, it may be subject to modification by practices prescribed or permitted by a state's insurance commissioner. However, a company must disclose in its annual statement if it follows a method of accounting that differs from that adopted in the APPM.

The state regulation of insurers' finances has a substantial impact on the federal taxation of life insurance companies. The Internal Revenue Code (Code) generally requires that the determination of the life insurance company taxable income must be made under an accrual method of accounting.[1] Under the accrual method of accounting, a deduction is not allowed for a liability until the all-events test is met. The all-events test "is met with respect to any item if all events have occurred which determine the fact of liability and the amount of such liability can be determined with reasonable accuracy."[2] For items to which the accrual method does not apply, the annual statement provides the basis for tax accounting.

Accounting for reserves is not an accrual method of accounting. Thus, the normal tax accrual method of accounting does not apply to reserves for insurance companies.[3] Instead, the Code provides specific rules for the computation of tax reserves. These rules rely significantly on state regulations. Thus, state regulations concerning policy reserves dictate to a great extent how much and to what extent income and deductions should be taken into account for federal income tax purposes.

Publicly traded companies are also required to file Generally Accepted Accounting Principles (GAAP) financial statements. GAAP accounting often diverges from SAP accounting, which is particularly true in calculating reserves. The preamble to the APPM describes this difference and the reason for it as follows:[4]

> The objectives of GAAP reporting differ from the objectives of SAP. GAAP is designed to meet the varying needs of the different users of financial statements. SAP is designed to address the concerns of regulators, who are the primary users of statutory financial state-

[1] I.R.C. § 811(a)(1) (2004).

[2] *See id.* § 461(h)(4).

[3] HOUSE WAYS AND MEANS COMMITTEE, H.R. REP. NO. 98-432, pt. 1, at 1256 (1984); SENATE COMMITTEE ON FINANCE, DEFICIT REDUCTION ACT OF 1984, S. PRT. NO. 98-169, at 268 (1984). Also, I.R.C. § 461(h)(5) provides that the economic performance rules do not apply to any item for which a deduction is allowable under a provision that specifically provides for a deduction for a reserve for estimated expenses.

[4] NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS, *Preamble to* NAIC ACCOUNTING PRACTICES AND PROCEDURES MANUAL, ¶ 10.

ments. As a result, GAAP stresses measurement of emerging earnings of a business from period to period (i.e., matching revenue to expense), while SAP stresses measurement of ability to pay claims in the future. This difference is illustrated by the fact that statutory policy reserves are intentionally established on a conservative basis emphasizing the long-term nature of the liabilities. Under GAAP, the experience expected by each company, with provision for the risk of adverse deviation, is used to determine the reserves it will establish for its policies. GAAP reserves may be more or less than the statutory policy reserves.

In the balance of this chapter, and generally elsewhere in this book, reference to regulatory requirements will be taken to mean state statutory requirements.

Although the basic structure for tax-basis reserves relies on SAP, the rules for tax reserves differ in important respects from the rules for statutory reserves. These tax rules often are unclear in their application despite a set of specific Code rules. In addition to rules for reserve increases and decreases, other Code sections rely on reserves to compute an insurance company's taxable income. Specifically, Section 812 provides the rules that depend on reserves for determining the percentage of tax-exempt income and dividends from unaffiliated common and preferred stock that flow to the life insurance entity tax-free. Similarly, Section 816 relies on the classification of reserves to define when an insurance company is a life insurance company or a non-life insurance company for tax purposes.

There are several categories of reserves. The balance of this chapter discusses these categories generally. More detailed discussions of reserve computations by product line can be found in Chapters 11–31 (the product-specific chapters).

1.3 RESERVES FOR FUTURE POLICY BENEFITS

Reserves for future policy benefits are for claims for which the events causing the claims have not yet occurred. For simplicity's sake, a traditional, level premium, level death benefit life insurance policy is used below to explain this reserve. Death protection is provided for the contractual period of the policy. Premiums, however, may be payable for a period that is the same or shorter. For this example, premiums are assumed to be payable annually and level in amount from year to year.

Because mortality generally increases with age while premium payments are level, premiums charged in early policy years must be far greater than the early expected claim amounts. This initial relative excess of premiums over assumed claims results in the accumulation of a reserve so that premium payments in later years will be sufficient to pay future policy claims even though those premiums are insufficient to pay those claims in the later policy years. That is, the reserve generated from these extra premiums in the early policy years accumulates through the years, such that in later years it can help provide for claims when the expected annual claim amounts have risen to an amount greater than that level annual premium.

Reserves are calculated using net premiums. Net premiums are the amounts necessary to pay mortality benefits and endowment benefits. Other expenses are not reflected in the net premium reserve, nor are there any margins for profits or adverse experience. For life insurance products, future cash surrender values or other future nonforfeiture benefits are not taken into account in computing the reserve.[5] The difference between the gross premiums (the actual premiums charged) and the net premiums is referred to as loading. Generally, if a company charges a gross premium that is less than the net premium, it must hold a deficiency reserve.

One can view the calculation of reserves from two perspectives, which generally produce identical results:

- Under the first approach, called the retrospective approach, the reserve can be looked at as a fund accumulated by the insurance company out of the net premiums to pay for future claims. Thus, the reserve is equal to the net premiums received, accumulated with interest, less benefits assumed to be paid.
- The second approach, called the prospective approach, sets the reserve equal to the present value of future benefits to be paid, less the present value of future premiums to be received. The prospective approach answers the question, "How much do I need today that together with future premiums and investment income will provide for the future benefits?"

The Standard Valuation Law (SVL), which has been adopted in every state as the basic rule for determining reserves, requires the second (prospective) approach.

The effect of reserves on earnings is generally a "smoothing" of income from one period to the next. See the Actuarial Breakout section, Part I, of this chapter for a mathematical demonstration of the smoothing effect of reserves on income using a whole life example.

In Table 1.1 below is an example of the calculation of this type of reserve. For simplicity's sake, the table shows a five-year term policy, assuming 0% interest and assuming that premiums continue to be paid (and policyholders remain in the group) even when a claim occurs. The reserve calculation in Table 1.1 is of the type known as a net level reserve calculation. The reserve calculation is for a policy at the end of its policy year. These end-of-year reserves are called "terminal reserves."

The definition of a net level reserve calculation is that the net premium is calculated to have the following properties:

- The present value of assumed benefits at the contract's issue date is equal to the present value of net premiums at the contract's issue date. Note that the sum [present value] of column (1) equals the sum [present value] of column (3).

[5] That said, as a final potential adjustment to the reserve on any contract as calculated, an additional statutory liability equal to any excess of the cash surrender value over the reserve as of the valuation date must be established. *See* NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS, STATEMENTS OF STATUTORY ACCOUNTING PRINCIPLES (SSAP) No. 51, ¶ 36; SSAP No. 52, ¶ 15(a); and SSAP No. 54, ¶ 25(a).

- The net premium is a level percentage of the contract premium (or "gross premium"). In this example, that percentage equals the present value of claims divided by the present value of gross premiums, i.e., 160/200, or 80%. Thus, each net premium in column (3) is 80% of the gross premium for that policy year, in this case 80% of 40, or 32. The difference between the 40 and the 32 is commonly referred to as the "loading." The loading is the amount that is theoretically available for expenses and profit.

TABLE 1.1

POLICY YEAR	(1) ASSUMED CLAIM COST	(2) GROSS PREMIUM	(3) NET PREMIUM	(4) RESERVE
1	10	40	32	22
2	15	40	32	39
3	25	40	32	46
4	40	40	32	38
5	70	40	32	0
Totals (Present Values)	160	200	160	

Column (4) [the reserve] can be seen as a retrospective accumulation of column (3) [net premiums], minus column (1) [assumed claim cost]. Thus, for example, the third policy year reserve of 46 equals (32+32+32) – (10+15+25). The reserve can also be calculated prospectively. Thus the third policy year reserve (46) also equals the present value of future benefits (40+70) minus the present value of future net premiums (32+32).

Net level reserves such as those calculated in Table 1.1 are rarely used. The reason is that the heavy first-year underwriting and sales expenses of putting a policy into force creates significant capital strain because these acquisition costs are immediately written off (expensed) under SAP.[6] Thus, for many years the SVL has permitted the use of modified reserve methods, most notably the Commissioners Reserve Valuation Method (CRVM). Basically, the CRVM reserve is a one-year term reserve for the first policy year and a net level premium reserve calculated as though the policy were issued in the second year and the CRVM reserve at the end of the first policy year is zero (or nearly zero). Thus, the CRVM approach permits a lower net premium in the first contract year and a commensurately higher net premium in renewal years.

In the Table 1.1 example, a change to CRVM would decrease the first-year net premium from 32.00 to 10.00 and increase the net premium for years 2 to 5 from 32.00 to 37.50, which has the effect of decreasing reserves. Note that in the case of Table 1.1 modified to a CRVM approach, the first-year terminal CRVM reserve would equal the 10.00 net premium minus 10.00 assumed claims, or zero. [Note that the sum or present value of future net premiums must still equal the sum or present value of benefits, i.e., 160.00.]

[6] *See id.* at SSAP No. 71, ¶ 2. This is unlike GAAP, which generally requires a net level premium reserve but allows acquisition costs to be capitalized and amortized. *See* MARK A. TULLIS AND PHILIP K. POLKINGHORN, VALUATION OF LIFE INSURANCE LIABILITIES, (3rd ed. 1996), n. 2 at 25, where the authors state that the deferred acquisition cost asset established under GAAP is essentially equivalent to an expense allowance.

Table 1.2 below illustrates the reserve pattern equivalent to that of Table 1.1, but shows reserves on a CRVM basis instead of on a net level basis. Under most currently issued individual life insurance plans, the CRVM defaults to a method called "full preliminary term," under which the first-year net premium equals the valuation cost of insurance for the first year.

TABLE 1.2

POLICY YEAR	(1) ASSUMED CLAIM COST	(2) GROSS PREMIUM	(3) NET PREMIUM	(4) CRVM RESERVE	(5) DECREASE FROM TABLE 1.1
1	10.00	40.00	10.00	0.00	22.00
2	15.00	40.00	37.50	22.50	16.50
3	25.00	40.00	37.50	35.00	11.00
4	40.00	40.00	37.50	32.50	5.50
5	70.00	40.00	37.50	0	0
Totals (Present Values)	160.00	200.00	160.00		

A comparison in column (5) of the CRVM reserve to the net level reserve in Table 1.1 illustrates the large decrease in reserve requirement between the two different reserve methods. The difference between the CRVM reserve and the net level premium reserve is commonly referred to as the unamortized "CRVM allowance," or unamortized "expense allowance." At issue, the expense allowance is 27.50, which is the difference between the CRVM "modified net premium" (37.50) and the CRVM first-year net premium (10.00). This has the effect of allowing 27.50 to be used to offset acquisition costs and the remaining 10.00 to be used for first-year claims. Note that the renewal "loading" is 2.50 under CRVM, vs. 8.00 under net level.

For a more in-depth discussion of calculation approaches for reserves for future policy benefits, please refer to Chapters 11–33, the product-specific chapters.

Because reserves are determined using the present value of the future expected death benefits, mortality tables are needed to determine the projected death benefits. In addition, an interest rate must be assumed to determine the present value of those benefits. State valuation laws generally define the mortality tables used to determine projected death benefits and specify interest rates. In addition, assumptions must be made regarding when premiums and benefits are paid.

1.3.1 MORTALITY TABLES

Mortality tables can be select, ultimate, or aggregate:

- A select mortality table is based on data of newly underwritten policies. As a result, newly issued policies for a given gender and current age have lower expected mortality than other, older policies. For two males currently age 40, for example, the first policy, issued 15 years ago (at age 25) has a higher expected mortality rate than the second policy, issued one year ago (at age 39). Technically, a select mortality table is one that shows the rate of mortality by both age and by duration from issuance. The effect of selection generally wears off between 5 and 20 years after issue. Therefore, select rates are usually used only for those periods of years.

- An ultimate table excludes the early data following entry and is based on the ultimate mortality among the insured lives.
- An aggregate table includes both select and ultimate mortality data combined.

It is not necessarily the case that higher mortality results in a higher reserve. This is because not only does a reserve depend on the expected future mortality; rather, the reserve also depends on the slope (rate of increase) of expected deaths and the premium pattern.

1.3.2 ASSUMPTIONS FOR TIMING OF PREMIUMS AND BENEFITS

Reserves may be curtate, semi-continuous, fully continuous, or discounted continuous:

- Curtate reserves assume that premiums are payable at the beginning of each policy year and death benefits are payable at the end of the policy year of death.
- Semi-continuous reserves are calculated reflecting the fact that death benefits are generally payable shortly after death with interest from the date of death to the payment date, and assuming that net premiums are payable annually at the beginning of each policy year. This approach eliminates the need for an immediate payment of claims reserve.
- Fully continuous reserves are those that result from the assumption that premiums are payable continuously throughout the year and the fact that death benefits are generally payable shortly after death with interest from the date of death to the payment date.
- Discounted continuous terminal reserves are identical to fully continuous terminal reserves. Most companies hold discounted continuous reserves rather than fully continuous reserves. A "discounted continuous" reserve discounts the fully continuous premium at interest only, to the beginning of the contract year. From an economic perspective, it reflects a premium payable at the beginning of the year, but with a pro rata return of the unearned premium at the moment of death. The assumption for discounted continuous reserves that premiums are paid at the beginning of each year enables traditional mean reserve methodologies to be used.

When curtate or semi-continuous reserves are held, a theoretical error is introduced in setting up future net premiums as an asset in the deferred premium calculation (and the analogous calculation in the case of mid-terminals), because the remaining premiums will not be collected in the year of death. To provide for this understatement, a reserve is established for the nondeduction of deferred fractional premiums. Additionally, where a company refunds the amount of any gross premiums at death, which represents payment for periods beyond the date of death, a company must establish a refund of premium reserve.

The curtate approach is now prohibited for individual life insurance.[7] If curtate assumptions are used, an immediate payment of claims (IPC) reserve is required in order to assume that death benefits are paid at the moment of death,[8] which has the effect of making the reserve equal to a semi-continuous reserve. The IPC reserve is frequently computed using rough approximations, such as i/2 times the basic reserve, where "i" is the reserve basis annual interest rate assumption.[9]

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[7] NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS, ACTUARIAL GUIDELINE XXXII.

[8] Guideline XXXII.

[9] TULLIS AND POLKINGHORN, *supra* note 6, at 41. Also mentioned in Guideline XXXII, *supra* note 7.

See Actuarial Breakout, Part II, of this chapter for a more detailed discussion of premium and claim timing assumptions (Part IIa) and of CRVM (Part IIb). Additionally, for a discussion of the adaptation of CRVM for universal life policies, see Actuarial Breakout, Part III, in this chapter. Additional detail on universal life CRVM is provided in Chapter 12.

1.3.3 MEAN RESERVES

Reserves are generally determined based on policy anniversaries. It is necessary to determine what the reserve is between policy anniversaries (e.g., as of a calendar date for the entire inforce block of business). The SVL does not specifically define how to calculate the reserve of a policy between anniversary dates. A company may assume that all policies have an anniversary six months prior to the statement date, rather than determining the reserve for each policy using its actual anniversary, which results in a calculation known as a mean reserve. The mean reserve equals the arithmetic average of the net (annual) premium, the prior anniversary terminal reserve, and the next anniversary terminal reserve.

All mean reserve calculations assume that the premium has been paid for an entire year, which is not always true in practice because many policyholders pay premiums monthly or quarterly or some other mode. For example, assume that a policyholder with a July 1 policy anniversary pays premiums semiannually (July 1 and January 1). The mean reserve at December 31 assumes that the January 1 premium due the next day has been paid. Because the reserve assumes the January 1 premium has already been paid, the company is holding a liability (the reserve) for the six months that the January 1 premium will support. Thus, the mean reserve by itself is an overstatement of the policy liability.

To balance the income statement and balance sheet, it is assumed on December 31 that the January 1 premium is paid and a gross deferred premium is reflected on the income statement in the amount of the January 1 premium. The loading attributable to the gross premium is shown as an expense. The deferred premium is held on the statutory balance sheet (Exhibit 13, line 14) on a net basis (i.e., the portion of the net annual premium that corresponds to the proportion deferred, 50% in this case). The difference between the gross premium and the net premium is commonly called "loading" and is meant to cover expenses and profits.

Assume that a policy has a gross annual premium of 150 with semiannual billing and a July 1 anniversary. Also assume premiums are paid when due. Thus, only one-half of the premium (75) has been paid at the valuation date of December 31. The annual statement in calendar year 1 will reflect a total premium incurred of 150 (including the 75 deferred premium and the 75 premium actually paid). Assume the net annual premium is 100. The loading equals the difference between the gross and net premium (50). The deferred net premium is equal to the gross deferred premium minus the loading attributable to the gross deferred premium. Thus:

Gross annual premium	150	
Net annual premium	100	
Annual loading	50	
Gross deferred premium	75	(50% of 150)
Net deferred premium	50	(50% of 100)

	Annual	Semiannual
Annual premium paid	150	75
Gross deferred premium		75
Loading on deferred premium		(25)
Net income	150	125

The load of 25 reflects a provision for commissions, other expenses, and profit.

The balance sheet reflects an asset of 50 (the gross deferred premium less loading), and the reserve is 50 higher than it would be if the gross deferred premium were not assumed to have been paid.

1.3.4 MID-TERMINAL RESERVES

Instead of mean reserves with deferred premiums, some companies hold mid-terminal reserves. Mid-terminal reserves are based on an interpolation of terminal reserves. The mid-terminal approach consists of the sum of two components. The first component is the mid-terminal reserve itself, i.e., the average of the previous anniversary and next anniversary terminal reserve. The second component of the approach is the net unearned valuation premium based on the billing frequency under the policy. Take, for example, a policy with a quarterly billing premium due December 1, where the annual net valuation premium equals 120.00. In such case the quarterly net valuation premium equals 30.00, two-thirds of which reflects the unearned portion (20). Under the mid-terminal approach, no net deferred premium is needed.

Mid-terminal reserves alone would significantly understate the reserve liability unless premiums are payable very frequently, such as weekly, because mid-terminal reserves assume that premiums are paid for coverage up to but not beyond the statement date. This is in contrast to mean reserves, which overstate reserves if premiums are payable more frequently than annually because the assumption made to calculate mean reserves is that the premium coverage period is to the next policy anniversary. To offset the understatement for mid-terminal reserves, a net unearned premium liability is set up as an adjustment.

For a large block of traditional life insurance policies with a reasonably smooth distribution of policy anniversaries throughout the calendar year, mean reserves and mid-terminal reserves reach roughly equivalent amounts.

1.4 CLAIM RESERVES, LOSS RESERVES, AND CLAIM LIABILITIES

There are two types of liability items for claims that have already occurred:

- Payments that will come due in the future for losses that have already occurred but for which the claims are not yet due, such as future disability income benefits where the disability has already occurred but the payments are due over the course of the disability and as future medical bills are incurred (present value of amounts not yet due, or PVANYD). This is referred to as a "claim reserve."
- Payments currently due for claims that have occurred. This is referred to as a "claim liability."

In the property/casualty environment, this distinction between claim reserves and claim liabilities is not made, and both types of liabilities are considered "loss reserves." Claim reserves on disability policies, like reserves for death benefits, are generally discounted to determine the present value of expected benefit payments. Similarly, expected benefit payments are determined using tables that assume future rates of termination of disability [death and recovery].

A simplified example of the reserving technique for computing reserves for disability claims can be found in Part IV of the Actuarial Breakout to this chapter. As in Table 1.1, above, a zero interest rate is assumed, for simplicity of illustration. For the effect of interest on this type of reserve, refer to the Actuarial Breakout, Part I, in Chapter 21, Part II.

For property/casualty insurance, and for many types of health insurance, it is common to use development table approaches to calculate claim liabilities. A development table is a statistical compilation of historical claim payments by claim incurral date, which is used to project future payments from claims that have been incurred prior to a financial close date. For example, if history indicates that a block of property damage claims that were incurred in Month 1 has generally completed 40% of its claim payouts by Month 4, then for property damage claims incurred in September 2002, if 100 were paid by December 31, then 150 would be the loss reserve, so that 100 divided by (100 + 150) would equal 40%. Note that in this approach no attempt is made to split the 150 of loss reserve between amounts due and amounts not yet due.

Because development tables are used widely in establishing loss reserves (and often accident and health claim reserves, due to their similarity of structure), the Actuarial Breakout section (Part V) of this chapter demonstrates the development table approach to establishing claim reserves and loss reserves and discusses some alternative development table approaches. The development table specifics will not be covered in detail in the product-specific chapters.

1.5 ANNUITIES IN PAYOUT STATUS

Annuities in payout status can generally be separated into two broad categories: "life-contingent" and "term-certain." A life-contingent annuity (which may have one or more annuitants) stops making payments once the last annuitant dies, while a term-certain annuity continues payment for the guaranteed period, regardless of whether the annuitant dies. Pure life-contingent annuities are relatively rare; most life-contingent annuities are combined with term-certain annuities. In these cases, annuity payments may continue after the last annuitant dies, until the end of a guaranteed period.

For a given amount of proceeds applied, the longer the period for which annuity payments are guaranteed, the less the periodic payments made under the annuity. For example, if a policy owner pays a 300,000 consideration for a life annuity, the beneficiary might have the following annual payment options:

- 2,700 annual income for a pure life annuity
- 2,640 annual income for a life annuity with the first 5 years of payments guaranteed
- 2,560 annual income for a life annuity with the first 10 years of payments guaranteed.

The reserve for an annuity in payout status takes into account the present value of the future annuity payments, based on an assumed interest rate. Mortality tables are used to determine when payments are assumed to stop as the result of the annuitant's death. This reserving approach is similar in nature to those for disability income reserves, as shown in the Actuarial Breakout to this chapter, Table 1.3, except that for life annuities, mortality is the only contingency to survivorship. Refer to Chapter 19 for further reserve calculation details for life-contingent annuities.

1.6 INDIVIDUAL DEFERRED ANNUITIES AND OTHER AMOUNTS ON DEPOSIT

In a fixed annuity contract, the insurance company agrees, for a cash consideration (in single or multiple payments), to make specified benefit payments during a fixed period or for the duration of a designated life or lives. Thus, an annuity contract does not need to be based on any life contingency.[10] The periodic benefit amounts payable under the contract must systematically liquidate the consideration, or principal, paid for the contract, as well as the interest credited on the contract.[11] An annuity includes a variable annuity contract under which a benefit amount is to be paid periodically until the fund is exhausted, but under which further payments may be made because of earnings at a higher rate.[12]

A deferred annuity is an annuity contract that has not reached its annuity starting date, when the periodic benefit payout begins. It has two phases: an accumulation phase and a payout phase. An immediate annuity has only a payout phase. Most annuity contracts contain a refund feature stated either in terms of a guaranteed number of annuity payments whether the annuitant lives or dies or in terms of a refund of the purchase price (or some portion) in the event of the annuitant's early death (prior to the annuity starting date). When the number and amount of future annuity payments are based on a contingency (e.g., the life of the annuitant), the contract contains an insurance element.

[10]Gen. Couns. Mem. 38,378 (May 16, 1980); Gen. Couns. Mem. 39,270 (Aug. 2, 1984) (a deferred annuity with permanent purchase term certain annuity guarantees qualifies as an annuity contract).

[11]Igleheart v. Comm'r, 174 F.2d 605, 606-7 (7th Cir. 1949), aff'g 10 T.C. 766 (1948); Comm'r v. Meyer, 139 F.2d 256, 258-59 (6th Cir. 1943).

[12]Regulations § 1.72-2(b)(2).

Prior to maturity, a deferred annuity contract is an investment contract for the accumulation of a principal sum to be applied to provide periodic payments after the annuity starting date. After the annuity starting date, payments may be liquidation of the accumulation amount together with interest (fixed-term annuity) or of the accumulation amount together with interest and mortality experience (life annuity).[13] Most individual deferred annuity contracts have surrender charges during the accumulation phase. The surrender charge typically begins at a percentage less than 10% of the account value at the contract issue date, and disappears between the seventh and tenth anniversaries.

The IRS has ruled in the context of insurance reserves under Section 807(c) that in order for a deferred annuity contract to constitute an annuity contract for tax purposes during the accumulation phase, it must provide for benefits that are fixed and determinable from the contract's inception. If the benefits relate to life contingencies, the contract must have permanent life annuity purchase rate guarantees in order for its reserves to be treated as life insurance reserves.[14]

Reserves for annuity contracts are generally computed using the Commissioners Annuity Reserve Valuation Method (CARVM) as defined in the SVL. To calculate a reserve using CARVM, which can be a complex calculation, one begins with the current account value, calculates the present value of future guaranteed benefits at each future anniversary, and takes the greatest of those present values. This calculation typically results in a reserve equal to or slightly greater than the net surrender value for a deferred annuity. For details on the CARVM calculation and its variations by deferred annuity product type, refer to Chapters 15–18. A generic description of the CARVM process can be found in the Actuarial Breakout (Part VI) of this chapter.

Life insurance companies often have other liabilities on their balance sheets that do not contain life or health contingencies but are simply amounts on deposit. In general, the reserve for amounts on deposit is equal to the account balance. The only potential variance from a deposit approach is where an option exists to convert the deposit balance into a life-contingent contract. For example, a deposit may be able to be used to purchase an annuity with favorable purchase rates.

Additional actuarial liabilities are commonly held for such items as surrender values in excess of reserves otherwise required or carried and for additional reserves based on cash flow testing and/or asset/liability matching requirements.[15]

1.7 STATE REGULATORY LAW AND OTHER STATE REGULATORY GUIDANCE

The valuation laws of the various states define the reserve methods, interest rate assumptions, and mortality tables to be used in computing reserves. This is generally referred to as "statutory" guidance. The basic rules governing reserves are found in the SVL. All 50 states have adopted the model SVL or a similar version of the law. The SVL defines CRVM for life insurance reserves and CARVM for

[13] *See* BACKGROUND ON THE TAXATION OF LIFE INSURANCE COMPANIES AND THEIR PRODUCTS (May 5, 1983), JOINT COMMITTEE PRINT, JCS-11-83. *See also* SSAP No. 50, *supra* note 5, at ¶ 20.

[14] Priv. Ltr. Rul. 8715038 (Jan. 13, 1987); Gen. Couns. Mem. 39,516 (June 10, 1986) and Gen. Couns. Mem. 38,378, *supra* note 11.

[15] SSAP No. 52, *supra* note 5, at ¶ 15.

annuities. The SVL does not define reserves for health insurance or for disability insurance. Guidance for reserves for these policies is found in the NAIC Minimum Reserve Standards for Individual and Group Health Insurance Contracts, which has been adopted in the APPM.[16]

The SVL defines the minimum reserves that must be held by a company.[17] Reserves are considered in the aggregate, so that a deficiency in one block of business may be offset by an excess in another block of business within a given "category."[18] A "category" is not explicitly defined in the SVL, but the SVL has categorized product lines for reserve purposes. Those various categories are expressed in the APPM.[19]

Reserves for any category of policies, contracts, or benefits may be calculated, at the company's option, according to any standard that produces greater aggregate reserves for the category than those calculated according to the minimum standards provided in the SVL, subject to a maximum valuation interest rate equal to the nonforfeiture interest rate in the Standard Nonforfeiture Law (SNFL).[20] If a state requires a higher or lower reserve than the NAIC interpretation of the SVL reflected in the APPM, or if a company voluntarily chooses to hold additional reserves to those required by the APPM, the difference between the amount as reported and the reserve required by the APPM must be included in the footnote reconciliation required by Appendix A-205.[21]

The SVL is interpreted by NAIC Model Regulations and Actuarial Guidelines. Additionally, for contracts issued on or after January 1, 2001, the APPM provides further guidance through its Statements of Statutory Accounting Principles (SSAPs), Interpretations (INTs), and Appendices (APPs). SSAP 51[22] provides:

> The reserving methodologies and assumptions used in computation of policy reserves shall meet the provisions of Appendices A-820 [the SVL in certain pertinent parts] and A-822 [asset adequacy analysis, generally cash flow testing] and the Actuarial Guidelines found in Appendix C of this Manual.[23] Further, policy reserves shall be in compliance with those Actuarial Standards of Practice promulgated by the Actuarial Standards Board.

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[16] NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS, *Appendix to* ACCOUNTING PRACTICES AND PROCEDURES MANUAL, at A-010.

[17] NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS, STANDARD VALUATION LAW §§ 4, 4a, 4b, and 10.

[18] *Id.* § 6.

[19] *Appendix to* ACCOUNTING PRACTICES AND PROCEDURES MANUAL *supra* note 17, at A-820, ¶ 3.

[20] STANDARD VALUATION LAW § 7(B), *supra* note 18. The Standard Nonforfeiture Law requires companies to provide cash values on individual life insurance policies in addition to nonforfeiture benefits as soon as they are available according to a formula specified in the law that takes into account the plan of insurance, the age of the policy, and the length of the policy's premium payment period.

[21] *Appendix to* ACCOUNTING PRACTICES AND PROCEDURES MANUAL, *supra* note 17, at A-205 as illustrated in INT 01-26.

[22] SSAP No. 51, *supra* note 5, at ¶ 15.

[23] The reference to Appendix C was made in 1999. Prior to 1999, the reference was to Part 9 of the NAIC *Financial Examiners Handbook*. See discussion under § 1.7.1, "Actuarial Guidelines."

Additional actuarial liabilities are commonly held for such items as:[24]

- Deficiency reserves
- Provision for either nondeduction of deferred fractional premiums or return of premiums at death of the insured
- Surrender values in excess of reserves otherwise required
- Substandard extra premiums, extra mortality on group conversions, and guaranteed insurability options
- Additional reserves required based on cash flow testing and/or asset/liability matching requirements, and
- Additional reserves for policies that contain conversion privileges or future contingent benefits.

The SVL itself does not require a company to establish a liability where the cash surrender value of a policy exceeds the reserve for that policy, although CARVM requires reserves to take into account the present value of any future cash surrender values. See discussion in Chapters 15–20. This liability requirement is found in the APPM[25] and is reflected in Exhibit 5, Part G, of the annual statement, which requires a company to hold as a miscellaneous reserve an amount "for surrender values in excess of reserves otherwise required and carried in this schedule." Further, the Valuation of Life Insurance Policies Model Regulation (Model Regulation XXX) provides that, for policies subject to the Model Regulation, in no case may total reserves (including basic reserves, deficiency reserves, and any reserves held for supplemental benefits that would expire upon contract termination) be less than the amount that the policyholder would receive (including the cash surrender value of the supplemental benefits, if any, referred to above), exclusive of any deduction for policy loans, upon termination of the policy.[26]

The requirement to hold a minimum reserve equal to the cash surrender value is generally considered to be a contract-by-contract requirement, and a contract-by-contract comparison is specifically required by Model Regulation XXX for policies subject to the regulation. Thus, a contract in which the cash surrender value is less than the CRVM reserve, for example, cannot reduce a liability for a contract in which the cash value exceeds the CRVM reserve. Some actuaries believe that an offset is allowed for policies not subject to Model Regulation XXX.

For a detailed overview of the SVL, please refer to Part I of the Appendix to this chapter.

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[24] SSAP No. 51, *supra* note 5, at ¶ 36 (2001 version).

[25] *See* SSAP No. 51, *supra* note 5, at ¶ 36; SSAP No. 52, *supra* note 5, at ¶ 15(a); SSAP No. 54, *supra* note 5, at ¶ 25(a).

[26] NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS, VALUATION OF LIFE INSURANCE POLICIES MODEL REGULATION (MODEL REGULATION XXX) § 6.C.