



AMERICAN ACADEMY *of* ACTUARIES

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William Sweetnam, Esq.
Benefits Tax Counsel
Office of the Benefits Tax Counsel
U.S. Department of the Treasury
Room 1000
1500 Pennsylvania Avenue, N.W.
Washington, D.C. 20020

Dear Bill:

The American Academy of Actuaries' Pension Committee recently formed a task force to examine regulatory issues under section 412 of the Internal Revenue Code (IRC). As chair of the Pension Committee, I am writing to share with you the recommendations of that task force.

Specifically, the task force examined areas under section 412 that either lacked regulatory guidance, or for which existing guidance needed clarification. The task force then put together a number of proposals intended to provide clarity to actuaries about several of these areas. Those proposals are summarized in the attached document.

We would be delighted to meet in person to discuss these recommendations. In the meantime, please do not hesitate to contact Todd Tuten, the Academy's Director of Public Policy, if you have any questions or comments. He can be reached by telephone at (202) 223-8196, or by email at tuten@actuary.org.

Thank you in advance for your consideration of these recommendations.

Sincerely,

Donald J. Segal
Chair, Pension Committee
American Academy of Actuaries

cc: Paul Shultz
James Holland

Full Funding Limitation

The IRS has not issued any official guidance on how to calculate the OBRA '87 and RPA '94 override full funding limitations. We recommend that guidance specify the following treatment:

- The full funding limitation is the excess (if any) of the appropriate percentage of year-end liabilities over year-end assets. The appropriate percentage for OBRA '87 is 165% currently, increased as scheduled. The appropriate percentage for RPA '94 is 90%.
- Current liabilities are projected to year-end with interest at the current liability interest rate and accruals during the year, and are reduced for expected disbursements, pursuant to the methodology described in Rev. Rul. 96-21 for purposes of the RPA '94 transition rule calculation.
- Assets are projected to year-end with interest at the valuation rate, and are reduced for expected disbursements, again pursuant to the Rev. Rul. 96-21 methodology.
- For OBRA '87 purposes, assets are the lesser of the actuarial value, or the market value (reduced by the credit balance for minimum funding purposes).
- For RPA '94 override purposes, assets are equal to the actuarial value, without any reduction for the credit balance.

Mid-year amendments / changes in benefit structure

There is currently little formal guidance on how to reflect mid-year amendments or changes in benefit structure for the liability measures used in various aspects of funding calculations. We recommend that the IRS clarify that the valuation may reflect, in full, the effect of any mid-year amendment by making the election under Code section 412(c)(8). Further, where this election is not made (or for mid-year changes in benefit structure made pursuant to an earlier amendment that are not otherwise fully reflected in liabilities) we believe that most actuaries use one of two approaches. We recommend that both of these approaches (described below) be permitted. These two approaches would also apply to the current liability calculation for collectively bargained plans (but not to the calculation of accrued liability).

Approach I:

Current Liability (other than year-end)

In determining the current liability for purposes of the gateway test (412(l)(9)), the unfunded mortality increase amount (412(l)(10)), and the quarterly contribution exemption (412(m)(1)), the mid-year change would be disregarded because these are purely beginning-of-year numbers. For purposes of the unfunded current liability and funded current liability percentage components of the additional funding requirement calculation (412(l)(8)), the change would be reflected on a prorata basis on the theory that the components of the additional funding charge calculation should reflect the plan's funded status throughout the course of the year and should therefore be consistent with the approach for the ERISA accrued liability

Year-end ERISA accrued liability (full funding limitation)

For purposes of calculating the ERISA full funding limitation, the plan's unfunded liability is projected to year-end. Under Approach I, mid-year changes would be reflected in full. Since the full funding limitation is a year-end measure, it is reasonable to reflect in full all changes effective by year-end.

Year-end current liability

The year-end current liability is used to determine the OBRA '87 full funding limitation under Code section 412(c)(7)(A), the RPA '94 full funding limitation override under Code section 412(c)(7)(E), the maximum tax deductible contribution under Code section 404(a)(1)(D), and the Code section 412(m)(5)(D) limit on payments for plans subject to the liquidity requirement. Under approach I, these year-end current liability measures would reflect changes which become effective during the year in full (consistent with the calculation of the year-end ERISA accrued liability).

Establishment of Amortization Bases

Under approach I, liabilities are reflected in full once they are effective. Under this approach, we would establish a single amortization base reflecting the full effect of the plan change, calculated as of the date of change. As discussed above, since the base would be established in the middle of the year, the amortization charge in the first year

would be for a partial year (followed by 29 full-year amortization charges and then a final partial year charge).

Approach II:

Current Liability (other than year-end) - same as approach I

In determining the current liability for purposes of the gateway test (412(l)(9)), the unfunded mortality increase amount (412(l)(10)), and the quarterly contribution exemption (412(m)(1)), the mid-year change would be disregarded because these are purely beginning-of-year numbers. For purposes of the unfunded current liability and funded current liability percentage components of the additional funding requirement calculations (412(l)(8)), the change would be reflected on a prorata basis on the theory that the components of the additional funding charge calculation should reflect the plan's funded status throughout the course of the year and should therefore be consistent with the approach for the ERISA accrued liability.

Year-end ERISA accrued liability (full funding limitation)

For purposes of calculating the ERISA full funding limitation, the plan's unfunded liability is projected to year-end. Under Approach II, the year-end accrued liability would reflect changes on a pro-rata basis, consistent with the calculation of accrued liability for other purposes.

Year-end current liability

The year-end current liability is used to determine the OBRA '87 full funding limitation under Code section 412(c)(7)(A), the RPA '94 full funding limitation override under Code section 412(c)(7)(E), the maximum tax deductible contribution under Code section 404(a)(1)(D), and the Code section 412(m)(5)(D) limit on payments for plans subject to the liquidity requirement. Under approach II, these year-end current liability measures would reflect changes on a prorata basis, consistent with year-end ERISA accrued liability.

Establishment of Amortization Bases

Under Approach II, liabilities are reflected on a prorata basis. Either one of the following two methods for establishing amortization bases would be used:

- Establish a beginning-of-year amortization base in the year of the amendment reflecting the benefit change on a prorata basis. At the beginning of the following year, another amortization base would be established to recognize the remaining portion of the plan amendment.
- Establish a single amortization base reflecting the full effect of the plan change, calculated as of the date of change. Since the base would be established in the middle of the year, the amortization charge in the first year would be for a partial year (followed by 29 full-year amortization charges and then a final partial year charge).

Current Liability

There have been a number of questions about the calculation of current liability. Following is a summary of some of the questions and suggested treatment:

Traditional Defined Benefit Plans with Lump Sum Payments

Some traditional defined benefit plans offer a subsidized lump sum payment option that is material to the value of the plan. In these plans, the actuarial valuation may include an assumption that participants elect a lump sum payment upon termination of employment. Notice 90-11 states that, for purposes of determining the current liability, the actuarial present value must be determined using the current liability interest rate. In addition, RPA '94 added a requirement that a specified mortality table be used in the current liability calculation. However, it was not specifically stated that the rate should be used to convert a benefit to a form other than a non-decreasing life annuity, such as a lump sum.

Inasmuch as current liability is intended to be a proxy for plan termination liabilities and in order to be consistent in the current liability calculations and in order to properly calculate the value of the lump sum option, we recommend that both the plan interest rate and the plan mortality table should be used to value such benefits. An alternative would be to value the lump sum option using both the current liability interest rate and the required RPA '94 mortality table.

Non-Traditional Defined Benefit Plans, Such as Cash Balance Plans

Under a typical cash balance plan, a participant's benefit is based on the value of a hypothetical account balance that grows while an active participant, based on the accumulation of hypothetical allocations with interest. Generally, upon termination of employment, a participant may elect to commence payment immediately (as a lump sum or actuarially equivalent annuity) or may elect to defer payment. If payment is deferred, the hypothetical account balance will continue to grow at a specified interest rate until payment is elected.

The calculation of current liability for a cash balance plan has also not been specifically addressed. Therefore, we suggest the following calculation methodology:

1. Determine the annuity payable at decrement date based on the plan provisions for calculating actuarial equivalent monthly benefits at assumed retirement date, including any funding assumptions about interest credited during the deferral period.
2. For participants assumed to elect payment in annuity form, the annuity determined in step 1 is valued based on the current liability interest rate and the required RPA '94 mortality table.

3. For participants assumed to elect payment in lump sum form, as described above, the annuity determined under the plan is converted to a lump sum based on the plan's interest rate and the plan's mortality table. An alternative would be to value the lump sum form using both the current liability interest rate and the required RPA '94 mortality table.

Full Funding Limit Issues for Mid-Year Mergers

Statement of Problem

There is no official IRS guidance on calculating the full funding limit (FFL) for plans affected by a mid-year merger. There are at least three potential approaches for calculating the FFL in the event of a mid-year merger, outlined below.

Three Possible Approaches

To illustrate these three approaches, let's look at a simplified example, in which interest, benefit payments and the current liability limits are assumed to take no part. Two predecessor plans with calendar plan years, one containing liabilities and assets for all active participants and the other containing liabilities and assets for all inactive participants, are combined on June 30, 2001 into one successor plan. Here are the relevant values for 2001:

	Predecessor (actives)	Predecessor (inactives)	Successor
	1/1/2001	1/1/2001	7/1/2001
AAL	\$ 5,940,000	\$ 4,000,000	\$ 10,000,000
AVA	5,400,000	4,600,000	10,200,000
NC	10,000 monthly	zero	10,000 monthly
1/2 year minimum contribution, deposited in 1 st 6 months	200,000	zero	N/A

Merger Approach #1 — As If Three Short Plan Years

Even in the case of a mid-year merger in which one of the predecessor plans is merged into the other, resulting in a short plan year for the disappearing predecessor plan and a 12-month plan year for the ongoing plan, it would be possible to calculate the full funding limits for the two plan years in a manner that would mimic the result achieved if both predecessor plans disappeared and a new plan were created as the successor plan. In this approach, three preliminary FFL values are calculated (i) for the first predecessor plan for the partial plan year prior to the merger date [in our example: $5,940,000 + 60,000 - 5,400,000 = 600,000$], (ii) for the second predecessor plan for the partial plan year prior to the merger date [$4,000,000 - 4,600,000 = \text{zero}$] and (iii) for the successor plan for the partial plan year after the merger date [$10,000,000 + 60,000 - 10,200,000 = \text{zero}$]. Any permissible contribution up to the FFL in parts (i) and (ii) made prior to the merger will affect the FFL in part (iii) by increasing the assets as of the merger date. The FFL for the 12-month plan year of the ongoing plan will be the sum of the contribution made to the ongoing plan prior to the merger date up to the FFL in part (i) or (ii), whichever is applicable, plus the FFL in part (iii). The FFL for the short plan year of the disappearing predecessor plan will be the FFL in part (i) or (ii), whichever is the disappearing plan.

The sum of the FFL/contribution values for the two plans is independent of which is the ongoing or disappearing plan, and it is not necessarily equal to the sum of the FFL values that would have applied to the two predecessor plans if the merger had not occurred.

In our example, if the predecessor plan covering actives is the ongoing plan, the FFL for the 12-month plan year of the ongoing plan is $200,000 + \text{zero} = 200,000$, while the FFL for the short plan year of the disappearing plan is zero. On the other hand, if the predecessor plan covering inactives is the ongoing plan, the FFL for the 12-month plan year of the ongoing plan is $\text{zero} + \text{zero} = \text{zero}$, while the FFL for the short plan year of the disappearing plan is \$600,000 and thus does not apply. The 200,000 contribution plan to that plan is sufficient to meet the minimum funding requirement.

Merger Approach #2 — One Long and One Short Plan Year

In this approach, the two FFL values are computed directly, taking into account only the contributions made to the disappearing predecessor plan for the period after the beginning of the plan year. The FFL for the 12-month plan year of the ongoing plan will be the expected unfunded actuarial liability (and, if applicable, the appropriate percentage of the expected unfunded current liability) as of the end of that 12-month plan year, taking into account the arrival of liabilities and assets from the disappearing predecessor plan in the merger. Similarly, the FFL for the short plan year of the disappearing predecessor plan will be the expected unfunded actuarial liability (and, if applicable, the appropriate percentage of the expected unfunded current liability) as of the end of that short plan year. The sum of the FFL/contribution values for the two plans is not independent of which is the ongoing or disappearing plan, and it is not necessarily equal to the sum of the FFL values that would have applied to the two predecessor plans if the merger had not occurred.

In our example, if the predecessor plan covering actives is the ongoing plan, the FFL for the 12-month plan year of the ongoing plan is $(5,940,000 + 4,000,000) + (120,000 + \text{zero}) - (5,400,000 + 4,600,000 + \text{zero}) = 60,000$, with 140,000 of the contribution made to the ongoing plan prior to the merger being non-deductible. The corresponding FFL for the short plan year of the disappearing predecessor plan is $4,000,000 - 4,600,000 = \text{zero}$. On the other hand, if the predecessor plan covering inactives is the ongoing plan, the FFL for the 12-month plan year of the ongoing plan is $[4,000,000 + (5,940,000 + 60,000)] + [\text{zero} + 60,000] - [4,600,000 + (5,400,000 + 200,000)] = \text{zero}$, and the FFL for the short plan year of the disappearing predecessor plan is $5,940,000 + 60,000 - 5,400,000 = 600,000$. Note that by merging the overfunded plan into the underfunded plan (i.e., by having the overfunded plan be the disappearing predecessor plan), the surplus from the overfunded plan can be applied toward the funding requirement for the underfunded plan for the entire 12-month plan year.

Merger Approach #3 — Calculate Total FFL as if Merger Occurred at Next Valuation

In this approach, the minimum funding requirement for the disappearing predecessor plan is calculated just as in Merger Approaches #1 and #2, which do not differ for the

disappearing predecessor plan. The minimum funding requirement for the ongoing plan is calculated from the valuations of the two predecessor plans at the beginning of the plan year, as if the merger did not take place, with the results for the two predecessor plans merely added together. Each of the component plans that make up the merged plan has its own separate FFL for the 12-month period including the merger, but the funded status of one component plan has no effect on the FFL of the other. This approach must be used when automatic IRS approval is desired for a method change made at the time of a merger, and it is described in more detail in Section 4.07 and 4.08 of Rev. Proc. 2000-40. The sum of the FFL/contribution values for the two plans is independent of which is the ongoing or new plan, and it is equal to the FFL that would have applied to the two predecessor plans if the merger had not occurred.

Under this approach, required funding, including charges to the funding standard account and the full funding credit are determined as follows:

- For the disappearing plan, based on a short six-month plan year, with no recognition of the funded status of the plan into which it will be merged.
- For the ongoing plan, the sum of two amounts:
 - i. An amount determined based on the ongoing plan's requirements for a full twelve-month plan year, with no recognition of the plan that is being merged into it (neither assets nor liabilities), plus
 - ii. An amount determined with respect to the plan that is being merged into the ongoing plan, based on a six-month plan year, recognizing its funded status and funding requirements as of the merger date, based on a projection from the beginning of the year but recognizing actual contributions received during the first half of the year. This calculation totally ignores the funded position of the ongoing plan into which it is being merged. Effectively this is equal to the amount that would be determined for the disappearing plan for the full calendar year reduced by the amount determined for the disappearing plan for the initial short six-month plan year.

Applying this approach to our example, assuming the predecessor plan covering actives is the ongoing plan:

- The minimum funding requirement for the short plan year of the disappearing plan for inactives is zero (i.e., zero net charges to funding standard account and full funding limit equal to zero).
- The minimum funding requirement for the 12-month plan year of the ongoing plan is 400,000 [for 12 months of the first predecessor plan] + zero [for 12 months of the second predecessor plan] – zero [for the short plan year of the disappearing plan for inactives] = 400,000. The full funding limit is effectively determined separately for the ongoing plan (ignoring the plan being merged in) and for the merged plan. Surplus from one plan does not offset funding requirements for the other plan.

Applying this approach to our example, assuming the predecessor plan covering inactives is the ongoing plan:

- The minimum funding requirement for the short plan year of the disappearing plan for actives is 200,000.
- The minimum funding requirement for the 12-month plan year of the ongoing plan is $400,000 + \text{zero} - 200,000$ [for the short plan year of the disappearing plan for actives] = 200,000.

Under these circumstances, the FFL of one of the predecessor plans has no effect on the FFL of the other predecessor plan until the next valuation performed for the plan year after the merger takes place. Unlike the multiple employer plan situation, however, an FSA credit balance from one predecessor plan within the merged plan can be used to offset a funding deficiency from the other predecessor plan within the merged plan.

Rationale for Proposed Solution

Merger Approach #1 incorporates an artificial break in plan years as of the merger date, which does not exist in the ongoing plan and does not reflect the reality of the mid-year merger. Merger Approach #3 must be used when automatic IRS approval is desired for a method change made at the time of a merger. When a method change is being made that does not qualify for automatic IRS approval under Rev. Proc. 2000-40, our recent experience has been that Merger Approach #3 will not raise any IRS objections, while Merger Approach #2 will be questioned by some (but not all) IRS reviewers. Nevertheless, Merger Approach #2 most closely reflects the theoretical definition of the FFL as the "expected unfunded liability at the end of the plan year" – keeping in mind the fact that as of the end of the 12-month plan year of the ongoing plan, all of assets of both predecessor plans are available to cover all the liabilities of both predecessor plans. For many years, Merger Approach #2 was the most commonly used by enrolled actuaries, although some have adopted other approaches in response to informal statements by IRS personnel at EA Meetings in the mid-1990s and more recently in response to Rev. Proc. 2000-40. Therefore, we propose that Merger Approach #2 be adopted as the standard for mid-year mergers. However, to the extent that any contributions made prior to the merger would have been deductible for the short plan year of the plan to which it was deposited, they should continue to be deductible, notwithstanding the occurrence of the merger.

Establishing New FSA Bases For Plans In Surplus In The Current Or Prior Plan Year

Background

A number of questions have arisen about the calculation of new FSA amortization bases for a plan in surplus (i.e., a plan with actuarial assets in excess of accrued liability) as of either the prior or current valuation date. For this discussion, we will focus on a plan that uses an immediate gain actuarial cost method, for which there have been no changes in assumptions, methods or plan provisions since the prior valuation. Thus, the only potential new base would be related to an experience loss or gain.

The fundamental test in the establishment of FSA bases is the "basic funding formula" contained in IRS Reg. §1.412(c)(3)-1(b)(1): the present value of future benefits must equal the present value of future normal cost, plus the unamortized portion of any charge bases minus credit bases, plus the actuarial value of assets reduced by the credit balance [and reconciliation account]. For a plan that is not in surplus, this formula can be restated as the following "balance test":

$$\text{net amortization base outstanding balance ("NABOB")} = \text{unfunded liability} + \text{credit balance} + \text{reconciliation account}$$

Balance Test Problems

At first glance, it might seem that this balance test formula could be used to determine what new FSA bases to establish as of any valuation date. There is a problem, however, because Rev. Rul. 81-213 defines the unfunded liability as the excess, *if any*, of the accrued liability over the actuarial value of assets. In other words, Rev. Rul. 81-213 establishes a minimum value of zero for the actual unfunded liability used in the determination of the experience loss or gain for a plan year. Without that limitation, an experience gain base might be developed for a plan in surplus, equal to the entire excess of assets over accrued liability, less the credit balance.

That would be a counterintuitive result for a plan with a large surplus, so many actuaries have looked at the minimum value of zero on the unfunded liability and concluded that a plan in surplus in the current year, with no amortization bases remaining from prior years, needs instead to establish a new experience loss base equal to the credit balance as of the end of the prior year.

Most actuaries rebel, however, at the thought of establishing a loss base that seems totally unrelated to the plan's actual experience – especially if the plan's experience was more favorable than expected – so there is another group of actuaries who argue that whenever a plan is in surplus in the current year, no new bases should ever be established. That's generally a good rule of thumb, but it still causes problems when the credit balance is larger than the surplus.

Proposed Solutions

We have developed three possible solutions to this problem. We have presented them in the preferred order.

Alternative 1

Our preferred solution is to remove the words “if any” from the definition of unfunded liability. Under this approach the outstanding balance of amortization credits might exceed the balance of amortization charges for a plan in surplus. The primary argument for this approach is its simplicity. The experience loss/(gain) base would always equal the actual experience loss/(gain), and the balance equation would always work.

There may be some concern that under this approach, a plan with a substantial surplus would develop a large credit balance simply as a result of the amortization of large gain bases. Accordingly we have developed two other alternatives that avoid this problem.

Alternative 2

This approach is identical to Alternative 1 except that the amortization credit is limited to prevent the creation of a credit balance attributable to excess surplus amortization. The calculations is as follows:

1. Determine the “excess surplus” as the excess, if any, of surplus over the sum of the credit balance and reconciliation account balance.
2. Assign the excess surplus first to the credit base with the longest remaining amortization period and then successively to the credit base with the next shorter amortization period until it has been completely assigned.
3. The amortization of the excess surplus is the amortization of the bases (or the portion of the bases) to which the excess surplus has been assigned.
4. Reduce the amortization determined in step 3 by the plan’s normal cost (but not below zero), by assigning normal cost first to the bases with the shortest remaining amortization period.
5. Any remaining amortization amounts attributable to excess surplus are offset by special one-time charges. In order to maintain the equation of balance, credit bases are established as of the next valuation date equal to the special charges, brought forward with interest. The amortization period for the new credit bases are equal to the remaining amortization period for the credit base that gave rise to the special charge (but not less than five years from the subsequent valuation date).

As under current rules, all bases would be eliminated whenever the plan has a full funding credit. The next base established (the gain/loss based for an immediate gain method) would be calculated so as to preserve the equation of balance.

Example:

(A) Valuation interest rate:			7.5%
(B) Unfunded liability / (surplus)			(80,000)
(C) Normal cost			10,000
(D) Credit balance			5,000
(E) Amortization bases	Balance	Period	Amortization
(F) Charge base 1	50,000	10	6,776
(G) Credit base 1	(25,000)	7	(4,391)
(H) Credit base 2	(30,000)	4	(8,332)
(I) Credit base 3	(70,000)	3	(25,040)
(J) Net amortization charges	(75,000)		(30,987)
(K) Excess surplus: -(J)	75,000		
<i>Portion of (K) assigned to</i>	Balance	Period	Amortization
(L) Credit base 1: lesser of (K) or – (G)	25,000	7	4,391
(M) Credit base 2: lesser of (K) – (L) or – (H)	30,000	4	8,332
(N) Credit base 3: lesser of (K) – (L) – (M) or – (I)	20,000	3	7,154
(O) Total	75,000		19,877
(P) Special one-time charge = excess over normal cost: (O) – (C)			9,877
<i>Assignment of (P) to credit bases</i>			
(Q) Credit base 1: Lesser of (P) or (L)			4,391
(R) Credit base 2: Lesser of (P) – (Q) or (M)			5,486
(S) Credit base 3: Lesser of (P) – (Q) – (R) or (N)			0
(T) Net FSA Charges before credit balance = (C) + (J) + (P)			(11,110)
<i>Carry-forward of amortization bases to the next valuation date</i>	Balance	Period	Amortization
(U) Charge base 1	\$46,466	9	6,776
(V) Credit base 1	(22,155)	6	(4,931)
(W) Credit base 2	(23,293)	3	(8,332)
(X) Credit base 3	(48,332)	2	(25,040)
(Y) Offset base for special charge 1 = – (Q) x 1.075	(4,720)	6	(935)
(Z) Offset base for special charge 2 = – (R) x 1.075	(5,897)	5	(1,356)
(AA) Net charges carried forward	(57,931)		(33,818)

Note, the credit balance in the example above would grow from \$5,000 to \$17,318. This increase is due solely to the more rapid amortization of credit bases than of charge bases, not due to amortization of surplus.

Alternative 3

We have prepared a third alternative in case Alternative 1 is deemed unacceptable and Alternative 2 is deemed too complicated. Under this approach we use the balance test formula as the basis for establishing new bases, except to impose a minimum of zero on the NABOB instead of on the unfunded liability. Applying the balance test in this way provides that the NABOB, after establishing any new bases including the experience loss/(gain) base, must equal the larger of zero or the following amount:

$$\begin{aligned} & \text{accrued liability} - \text{actuarial value of assets} + \\ & \text{credit balance} - \text{funding deficiency} + \text{reconciliation account} \end{aligned}$$

Simplified Examples, Illustrating Need For Change

The examples on the following pages show illustrative results for a plan starting to come out of a surplus position and then for a similar plan with a much larger surplus. All prior amortization bases had previously been wiped out, but there is a remaining credit balance which is greater than the surplus in the first example and less than the surplus in the second example. There is no full funding credit because the market value of assets is significantly less than the actuarial value.

Three alternative approaches are illustrated. The first column shows an experience loss base equal to the credit balance. The second column shows the result when no new bases are added as long as the plan is in surplus. The third column shows the proposed solution, based on the NABOB as of the beginning of the plan year.

Looking at the last line of the first example, it is clear that the first two approaches have a fatal flaw under certain circumstances. If each actuarial assumption were exactly realized, an experience gain or loss would be generated for this plan at the end of the year, contrary to the requirement contained in the IRS reasonable funding method regulations at §1.412(c)(3)-1(c)(2). For this reason, only the proposed solution should be considered acceptable for future valuations. The second example indicates that this issue does not have a meaningful impact on plans that remain in surplus at the end of the year.

Example I: Plan With Credit Balance Greater Than Surplus

1/1 Basic Valuation Results:

1. interest rate	7.5%
2. market assets	\$ 77,811
3. actuarial assets	93,373
4. actuarial liability	93,143
5. normal cost	4,478
6. unfunded liability/(surplus)	(230)
7. credit balance	1,897
8. prior amortization bases	none

Alternative Approaches in Common Use

	<u>Loss = Credit Balance</u>	<u>Loss = Zero</u>	<u>Loss by NABOB</u>
1/1 Minimum Contribution Alternatives:			
9. NABOB: 6 + 7 (*)	N/A	N/A	\$ 1,667
10. experience loss base	\$ 1,897	\$ 0	1,667
11. amortization charge	436	0	383
12. balance test: 10 - 7	0	(1,897)	(230)
13. minimum contribution, beginning of year: 5 + 11 - 7	3,017	2,581	2,964

12/31 Expected Results if All Assumptions Met:

14. credit balance	0	0	0
15. unfunded liability: (5 + 6 - 13) x 1.075 (*)	1,323	1,792	1,380
16. NABOB: (10 - 11) x 1.075 (*)	1,570	0	1,380
17. loss/(gain): 14 + 15 - 16	(247)	1,792	0

(*) minimum zero

The results in line 17 indicate that the first two alternatives should not be considered acceptable, since they incorporate a built-in experience gain or loss.

Example II: Plan With Large Surplus

1/1 Basic Valuation Results:

1. interest rate	7.5%
2. market assets	\$ 87,811
3. actuarial assets	103,373
4. actuarial liability	93,143
5. normal cost	4,478
6. unfunded liability/(surplus)	(10,230)
7. credit balance	1,897
8. prior amortization bases	none

Alternative Approaches in Common Use

	<u>Loss = Credit Balance</u>	<u>Loss = Zero</u>	<u>Loss by NABOB</u>
1/1 Minimum Contribution Alternatives:			
9. NABOB: 6 + 7 (*)	N/A	N/A	\$ 0
10. experience loss base	\$ 1,897	\$ 0	0
11. amortization charge	436	0	0
12. balance test: 10 - 7	0	(1,897)	(1,897)
13. minimum contribution, beginning of year: 5 + 11 - 7	3,017	2,581	2,581

12/31 Expected Results if All Assumptions Met:

14. credit balance	0	0	0
15. unfunded liability: (5 + 6 - 13) x 1.075 (*)	0	0	0
16. NABOB: (10 - 11) x 1.075 (*)	1,570	0	0
17. loss/(gain): 14 + 15 - 16	(1,570)	0	0

(*) minimum zero

The results in line 17 indicate that the first alternative should not be considered acceptable, since it incorporates a built-in experience gain or loss.