# DB Plan Funding Strategies and the use of Credit Balances Workshop 11 

## 2015 ASPPA Annual Conference

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## Acknowledgment

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## Key

- Carryover Balance $=\mathrm{COB}$
- Prefunding Balance $=\mathrm{PFB}$
- Funding Target = FT
- Target Normal Cost = TNC
- Beginning of Year = BOY
- End of Year = EOY
- Presumed Adjusted Funding Target = PFT
- Employer/sponsor = you or me (if I say "you" or "me" I probably mean the plan sponsor)
- Minimum Required Contribution = MRC


## Assumptions

- During the following presentation and for all of the examples, assume the following:
- There have been no annuities purchased
- There have been no amendments or UCEBs
- The prior year AFTAP has been timely certified (before the first day of the $10^{\text {th }}$ month)
- The plan is not subject to collective bargaining agreement
- PYB after 12/31/07 is first effective year


## What are they?

- Carryover Balance (COB)
- The carryover balance is the leftover credit balance from pre-PPA years.
- Contributions/credits in excess of absolute minimum required amount.
- Final regulations clarified that a COB is automatically created if the credit balance was greater than $\$ 0$ at the end of the pre-effective plan year. 1.430(f)-1(b)(2)(i)



## What are they?

- Prefunding Balance (PFB)
- Present value of contributions in excess of required minimum contribution.
- Employer/sponsor must make specific election with regard to the amount of the excess that will be used to create or added to a prefunding balance. 1.430(f)-1(f)(1)(i)


## What are they?

- Prefunding balance (cont.)
- The maximum amount that may be elected to be added is the excess contributions on the valuation date plus interest at the effective rate to the first day of the next plan year.
$1.430(\mathrm{f})-1(\mathrm{~b})(1)(\mathrm{ii})(\mathrm{A}),(\mathrm{B})$, and (iv)(A)


## What are they?

- Prefunding Balance (cont.)
- The final regulations clarified that an election to add to a prefunding balance is an election to maintain a prefunding balance. 1.430(f)1(b)(1)(i)
- Alternatively, the sponsor may make a standing election to add the maximum amount possible to the prefunding balance. 1.430(f)-1(f)(1)(ii)



## What can they be used for?

- Toward satisfying the minimum required contribution (including quarterlies)
- Burn to allow use of balance(s) in following year
- Burn to eliminate funding shortfall (to avoid quarterly contributions in next year)
- Burn to increase the AFTAP (presumed)
- May be deemed or elective
- Burn to increase the AFTAP (the real one)
- May be deemed or elective

Note: Carryover balance must be used before prefunding balance.

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## Using Balances toward Minimum

- Employer/sponsor must elect to use the balance before the due date of the applicable minimum funding date. This is a change from proposed regulations.
1.430(f)-1(f)(2)(i)
- The balance may only be used if the prior year "funding ratio" was at least 80\%. In this case funding ratio means (AVA - PFB) $\div$ Funding Target. 1.430(f)-1(d)(3)


## Using Balances toward Minimum

- The amount available is "as of" the valuation date.
- Beginning of Year Valuation
- Use the balance as of the beginning of the year.
- End of Year Valuation
- Use the balance at the beginning of the year brought forward to the valuation date at the effective rate of interest. $1.430(\mathrm{f})-1(\mathrm{~b})(5)(\mathrm{i})$

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## Using Balances toward Minimum

- What is the amount available at the valuation date?
- Beginning of Year Valuation
- Amount at beginning of prior year less amount used and any elective reduction for the prior year. 1.430(f)-1(b)(3)(i)
- Remaining amount is brought to the beginning of the next year at the actual rate of return for that year. 1.430(f)-1(b)(3)(i)



## Using Balances toward Minimum

- Beginning of Year Valuation (cont.)
- New amount added to PFB
- Present value of contributions as of valuation date in excess of minimum required contribution plus interest at the effective rate to the first day of the next plan year. 1.430(f)-1(b)(1)(ii)
- The amount of excess contributions attributable to the use of a credit balance to offset the minimum is updated at the actual rate of return.



## Using Balances toward Minimum

- End of Year Valuation
- Amount available was brought forward from the first day of the plan year to the EOY at effective rate. 1.430(f)-1(b)(4)(i)
- Amount left would be amount determined above minus the amount used.
- That leftover amount is then brought back to the beginning of the year at the effective rate.



## Using Balances toward Minimum

- End of Year Valuation (cont.)
- The beginning of year amount is then brought to the beginning of the next year at the actual rate of return for the year. $1.430(\mathrm{f})-1(\mathrm{~b})(4)$ (ii)
- New amount added
- Present value of contributions as of valuation date in excess of minimum required contribution plus interest to the first day of the next plan year at the effective rate. 1.430(f)-1(b)(1)(iv)(A)



## Using the Balances toward minimum

- End of Year Valuation (cont.)
- New amount added
- The amount of excess contributions attributable to the use of a credit balance to offset the minimum is discounted to the beginning of the year at the effective rate and then updated at the actual rate of return to first day of the next plan year.
$1.430(\mathrm{f})-1(\mathrm{~b})(4)$ (ii) and (iii)

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## Using Balances toward the Minimum

- Caution 1: If an election was made in the current year to use a portion of the balance toward the MRC toward the prior year, and current year elective or deemed reductions occur, special adjustments are needed to redetermine the amount available for the prior year MRC. (example later) 1.430 (f)-1(d)(1)(ii)(D)



## Using Balances toward Minimum

- Caution 2: If an election was made in the current year to use a portion of the balance toward the MRC for the current year and a later elective or deemed reduction occurs, the amount available to use toward the MRC is retroactively reduced. (example later) 1.430(f)1(d)(1)(ii)(B)


## Example 1-BOY

- Beginning of year Val 1-1-14
- Facts:
- COB=15,000
- PFB=0
- 2014 Eff Rate=6\%
- 2014 Actual ROR=5\%
- MRC on Val Date $=10,000$
- Amount available to use: 15,000
- Election made to use 10,000 of COB



## Example 1-BOY

- Amount remaining for 1-1-2015 Val
- COB is 5,000 plus actual ROR interest
$-5,000$ * (1.05)
$-5,250$ is $1-1-2015$ COB


## Example 1A-BOY

- Now assume after electing to use the COB, the sponsor makes a contribution with a 1-1-14 present value of $\$ 15,000$.
- PV of excess contributions is $\$ 15,000$ but $\$ 10,000$ is attributable to the election to use the COB to offset the minimum. The remaining $\$ 5,000$ is a result of cash contributions in excess of the MRC.


## Example 1A-BOY

- Amount COB remaining for 1-1-15 Val
- COB $=(15,000-10,000)$ plus interest at the actual ROR $=5,000 * 1.05=5,250$
- Amount available to add to PFB at 1-1-15
- 10,000 plus interest at the actual ROR plus
$-5,000$ plus interest at the effective rate
$-10,000 * 1.05+5,000 * 1.06=$
$-10,500+5,300=15,800$ (total balances 21,050)


## Example 1A-BOY

- If no election to use COB and contributed $\$ 15,000$, COB = 15,750 and PFB would be $\$ 5,300$.
(total balances 21,050)



## Example 2-EOY

- Election made to use 5,300 of COB and 4,700 of PFB
- Amount remaining as of beginning of 2015 year
- COB is gone
- PFB at Val Date $=10,600-4,700=5,900$
- PFB left at beginning of 2014=5,900/1.06=5,566
- PFB as of 1-1-2015 = 5,566 * $1.05=5,844$



## Example 2A-EOY

- Now assume a contribution with an EOY value of $\$ 15,000$ is made.
- PV of excess contributions at val date is \$15,000.


## Example 2A-EOY

- Amount of COB remaining
- COB is gone
- Amount available for PFB at 1-1-15
- Of the 15,000 excess, 10,000 is due to the use of the balances.
$-10,000 / 1.06 * 1.05=9,906$ plus
-5,000
- Amount available to add to PFB $=14,906$
- Total PFB could be $(14,906+5,844)=20,750$


## Example 2A-EOY

- If they had not elected to use the balances, the COB would be 5,250 and the PFB would be $(10,500+5,000)=15,500$.
(total balances 20,750)



## Reduce to allow use in next year

- Funding ratio must be at least $80 \%$ in the prior year to allow use of balance. $1.430(\mathrm{f})-1(\mathrm{~d})(3)$
- Determination of the funded status only subtracts prefunding balance, not carryover balance.
- So, if PFB has been created and funding ratio falls below $80 \%$, employer/sponsor may want to consider reducing/or not creating as large of a PFB to allow the use of the balances in the following year. Remember, COB must be reduced first.
- Election to create a PFB has to be made by the minimum funding deadline for the year in which the excess contributions were made.


## Burn to avoid quarterly contributions

- If FTAP (AVA-COB/PFB) $\div$ FT is less than $100 \%$, but $\mathrm{AVA} \div \mathrm{FT}$ is greater than $100 \%$, then may want to reduce the balances to get the FTAP to at least 100\%.
- Said differently, if FT - (AVA - COB/PFB) is greater than 0 , but FT - AVA is less than 0 , then may want to reduce the balances to get the FTAP to at least 100\%.
- This would eliminate the quarterly contributions requirement in the following year.
- This election would have to be made by the end of the applicable plan year. 1.430(f)-1(f)(2)(iii)


## Example 3-avoid Quarterlies

- 1-1-14 AVA=100,000
- 1-1-14 FT=95,000
- 1-1-14 COB=15,000
- Funding shortfall exists, so will be subject to quarterlies in 2015.
- Funding Shortfall=

$$
95,000-(100,000-15,000)=10,000
$$



## Example 3-avoid Quarterlies

- Election made to reduce 1-1-14 COB by 10,000
- Funding Shortfall no longer exists
- Funding Shortfall=
-95,000-(100,000-5,000)=0
- No quarterlies in 2015


## Burn to increase Presumed AFTAP

- During the Presumption Period
- Determine of the presumed AFTAP
- Have to know the interim value of assets and the $C O B / P F B$ at the valuation date. CURVE


## Burn to increase Presumed AFTAP

- Determine the presumed AFTAP
- First three months it is prior year's AFTAP
- First day of the fourth month it is the presumed AFTAP minus $10 \%$, but only if prior year AFTAP was at least $60 \%$ but less than $70 \%$ or at least $80 \%$ but less than $90 \%$.



## Burn to increase Presumed AFTAP (first three months)

- Determine the interim value of assets
- Value of assets at valuation date - ignore:
- Contributions made after the Val Date
- Elections made after the Vale Date to add to PFB
- Elections made after the Val Date to use the COB/PFB $1.436-1(\mathrm{~g})(2)(\mathrm{ii})(\mathrm{B})(1)$


## Burn to increase Presumed AFTAP (first three months)

- Determine the Presumed Adjusted Funding Target
- Divide interim value of assets minus COB/PFB by the presumed AFTAP.
$1.436-1(\mathrm{~g})(2)(\mathrm{ii})(\mathrm{B})(1)$



## Burn to increase Presumed AFTAP -

(first three months)

- Required or deemed burn
- If AVA < 60\% PFT, no burn
- If AVA>Transitional \% of PFT (96\% for 2010), no burn- Transitional \% does not apply anymore
- If presumed AFTAP>80\%, no burn
- If $60 \%<$ Presumed AFTAP<80\% but AVA>80\%PFT, calculate burn. This is only applicable if the plan provides for accelerated payments.
- If Presumed AFTAP <60\% and AVA>60\%PFT, calculate burn. If accruals are frozen and plan does not pay accelerated payments, this is N/A.
- Burn is COB/PFB - (AVA - 80\%/60\%PFT)



## Burn to increase Presumed AFTAP - <br> (first day of fourth month)

- Do it all over again at as of the first day of the $4^{\text {th }}$ month unless actual AFTAP is done.
- Reflect prior deemed burn
- Reflect any contributions for the prior year and elections made to use the COB/PFB for the prior year as of first day of $4^{\text {th }}$ month. ${ }^{1.436-}$ 1(g)(2)(ii)(C)


## Burn to increase Presumed AFTAP

- If pfesirst day offor Afth month is thible the transition rule (prior years funding levels met transition rules) and presumed AFTAP is equal to or greater than the threshold, for the current year, don't subtract COB/PFB.
- This is important when calculating the inclusive presumed AFTAP to determine if a burn is required to allow an amendment to go into effect.

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| :---: | :---: | :---: |
|  | 1-1-09 AVA | 450,000 |
|  | 1-1-09 COB | 20,000 |
|  | AVA / FT | 75.00\% |
|  | AFTAP (truncated per SB instructions) | 71.66\% |
|  | Actual 2009 ROR | 25\% |
|  | 1-1-10 AVA | 750,000 |
|  | 1-1-10 COB + PFB | 125,000 |
|  | AVA - Balances | 625,000 |
|  | 1-1-10 Presumed AFTAP | 71.66\% |
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|  | Example 4-Presumed AFTAP |  |
| :---: | :---: | :---: |
|  | 1-1-10 Presumed FT | 872,174 |
|  | 80\% Presumed FT | 697,740 |
|  | Required Burn | 72,740 |
|  | Remaining Balance | 52,260 |
|  | AFTAP | 80.00\% |
|  | 4-1-10 Presumed AFTAP | 70.00\% |
|  | 1-1-10 AVA | 750,000 |
|  | 1-1-10 COB | 52,260 |
|  | AVA - Balances | 697,740 |
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## Example 4-Presumed AFTAP

80\% Presumed FT 797,417

60\% Presumed FT 598,063
Required Burn 0
Remaining Balance 52,260
1-1-14 AFTAP (as of 4-1-14) 70.00\%


## Timing of Elections

- Per final regulations, if during the presumption period, a portion of the balance was deemed to be burned, the amount available to use toward the prior year's minimum required contribution is based on the adjusted balance at the beginning of the prior year. 1.430(f)-1(d)(1)(ii)(A)


| Example 6-Recalc Available Balance <br> BOY (deemed reduction before election to use toward prior year MRC) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 1-1-1 | COB | 10,200 |
|  | 1-1-1 |  | 58,573 |
|  | 2014 | fective rate | 6.5\% |
|  | 2014 | ctual ROR | 7.0\% |
|  | $\begin{aligned} & \text { Deem } \\ & \text { COB/F } \end{aligned}$ | d reduction in B as of 4/1/15 | 68,500 |
|  | Spon <br> towa | elects to use 2014 MRC on |  |
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## Example 6-Recalc Available Balance BOY

Amount of balances available to use toward minimum
1-1-15 COB
10,200*1.07=10,914

1-1-15 PFB
58,573*1.07=62,673
Deemed reduction in COB 10,914

Deemed reduction in PFB 57,586
1-1-15 Remaining PFB 5,087
Adjusted back to 1-1-14 5,087/1.07=4,754
PFB available for MRC in $2014 \quad 4,754$



Example 7-Recalc Available Balance EOY
(deemed reduction before election to use toward prior year MRC)
1-1-13 COB 10,000

1-1-13 PFB 55,000

2013 effective rate 6.0\%

2013 Actual ROR 10.0\%
12-31-13 Balances
$65,000 * 1.06=68,900$
(for MRC)
Deemed reduction in
68,500
COB/PFB as of 4/1/14
Sponsor elects to use COB/PFB toward 2013 minimum on $5 / 1 / 14$

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## Example 7-Recalc Available Balance EOY

Amount of balances available to use toward minimum

| $1-1-14$ COB (for AFTAP) | $10,000 * 1.1=11,000$ |
| :--- | :--- |
| $1-1-14$ PFB (for AFTAP) | $55,000 * 1.1=60,500$ |

Deemed reduction in COB 11,000
Deemed reduction in PFB 57,500
1-1-14 Remaining PFB 3,000
Adjusted back to 1-1-13
3,000/1.1=2,727
PFB available for MRC in 2013
$2,727 * 1.06=2,891_{5}$

|  | Exam <br> BOY (ele <br> 1-1-14 <br> 1-1-14 <br> 2014 <br> 1-1-15 <br> Electio <br> towar <br> Electio <br> 2014 | e 8-Recalc Avail <br> ion to use for cur ction to use for prior <br> COB <br> PFB <br> tual ROR <br> COB <br> on $3 / 1 / 15$ to use 2015 MRC <br> on $4 / 1 / 15$ to use RC | ance before 40,000 0 25.0\% 50,000 40,000 <br> toward |
| :---: | :---: | :---: | :---: |
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## Example 8-Recalc Available Balance BOY

1-1-14 Value of $3 / 1 / 15$
election
1-1-14 COB after 3/1/15
election
40,000/1.25
=32,000
40,000-
32,000
=8,000
COB available for 2014 MRC is 8,000

## Example 9-Recalc Available Balance -

EOY (election to use for current year before election to use for prior year)

1-1-13 COB

1-1-13 PFB
0
2013 Actual ROR 25.0\%

2013 Effective Rate 6\%

12-31-13 COB for MRC
42,400
Election on $3 / 1 / 14$ to use 40,000 toward 2014 MRC
Election on 4/1/14 to use entire balance toward 2013 MRC

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## Example 9-Recalc Available Balance EOY

| $1-1-13$ Value of $3 / 1 / 14$ | $40,000 / 1.25$ |
| :--- | ---: |
| election | $=32,000$ |
| $1-1-13$ COB after $3 / 1 / 14$ | $40,000-$ |
| election | 32,000 |
|  | $=8,000$ |

12-31-13 COB available for
8,000*1.06 2013 MRC
=8,480

## Example 10-RecaIc Avalladाe Balance BOY

(deemed reduction reduces amount available for MRC)

| $1-1-14$ COB | 10,200 |
| :--- | :--- |
| $1-1-14$ PFB | 58,573 |

Sponsor elects to use 68,000 of COB/PFB toward 2014 minimum on $3 / 1 / 14$

Deemed reduction in 68,500
COB/PFB on 4/1/14
Amount now Available for 273
2014 MRC
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Example 11-Recalc Available Balance EOY (deemed reduction reduces amount available to use 1-1-13 COB for current year) 10,000
1-1-13 PFB 55,000
2013 Actual ROR 10\%
2013 Effective Rate 6\%
12-31-13 Amount Available 68,900 for MRC
Sponsor elects to use 50,000 toward 2013 MRC on $3 / 1 / 13$
Deemed reduction on 4/1/13 30,000
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## Example 11-Recalc Available Balance EOY

Amount now available for 2013 MRC
Deemed reduction in COB 10,000
Deemed reduction in PFB 20,000
Remaining 1-1-13 PFB 35,000
Amount now Available for 35,000*1.06
2013 MRC
=37,100

## Burned to increase AFTAP (the real one)

- Required Burn
- At the time of certification
- If there is enough COB and/or PFB to burn that would cause the AFTAP to increase to one of the thresholds, $60 \%$ or $80 \%$, then it must be burned. No election is necessary.
- However, if the plan does not offer accelerated payments, then no burn is required between $60 \%$ and $80 \%$. If no accelerated payments and plan is already frozen, no burn if less than 60\%.


## Burn to increase AFTAP (the real one)

## - Optional Burn

- To make sure presumed AFTAP will be over the threshold in the following year.
- If AFTAP is less than $90 \%$ but would be at least $90 \%$ if some or all of COB/PFB was burned, then may want to consider this.



## The Final Question...

- Are these credits worth it?
- If funding ratio is below 80\%, can't use them anyway
- If no balances, no burn, no election to reduce, no presumed AFTAP worries, no re-do of MRC if the sponsor does decide to elect to use the balance toward the minimum, more sleep?



## Example 12 With and Without Balances

|  |  |  | No Balances | Balances |
| :---: | :---: | :---: | :---: | :---: |
|  | 1-1-09 FT |  | 1,000,000 | 1,000,000 |
|  | 1-1-09 TN |  | 100,000 | 100,000 |
|  | 1-1-09 AV |  | 800,000 | 800,000 |
|  | 1-1-09 PF |  | 0 | 250,000 |
|  | Funding S | tfall (94\% test) | yes | yes |
|  | Funding S | tfall Amount | 140,000 | 390,000 |
|  | Shortfall A | rtization | 23,333 | 65,000 |
|  | Excess As |  | 0 | 0 |
|  | MRC as of | 1-09 | 123,333 | 165,000 |
|  | Minimum | ect to use PFB | 123,333 | 0 |
|  | Maximum |  | 800,000 | 800,000 |
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## Example 13 With and Without Balances



