

# A Real World Illustration Of SFAS 158

Stuart Shough, University of South Carolina, USA

## ABSTRACT

*This article presents an illustration of a defined benefit pension plan for an employer after having adopted SFAS 158, Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans. New requirements to report the funded status of a defined benefit plan are demonstrated using journal entries and T-accounts from the beginning of a plan to its conclusion.*

## INTRODUCTION

The FASB issued SFAS 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans* in September, 2006 to address concerns that existing standards for employers' accounting for defined benefit pension plans did not adequately communicate the funded status of those plans. Prior standards did not require employers to report the funded status, overfunded when the projected benefit obligation is less than the fair value of plan assets or underfunded when the projected benefit obligation is greater than plan assets, in the statement of financial position. Issuers of publicly traded equity securities were required to adopt the statement for the fiscal year ending after December 15, 2006 and nonpublic companies had an effective date for the year ending after December 15, 2007.

SFAS 158 requires employers to report either a net liability (projected benefit obligation is greater than the fair value of pension assets) or a net asset (projected benefit obligation is less than the fair value of pension assets). Previously employers only had to report a minimum liability that resulted when accumulated benefit obligation was greater than pension assets. Instead of a company disclosing the funded status of the pension plan, SFAS 158 requires the company to record the underfunded or overfunded status, thus increasing the transparency of the financial statements. SFAS 158 did not change how pensions are accounted for and reported in the income statement, however, accounts such as prior service cost and net gain that are used in computing pension expense were previously off-balance sheet accounts, they are now listed in accumulated other comprehensive income (AOCI).

Prior to SFAS 158 the recognition of a liability (accrued pension cost) was required when the net periodic pension expense exceeded the cash payments into the plan by the employer. If cash payments exceeded the net periodic pension expense, an asset (prepaid pension cost) was recognized. In addition to the accrued/prepaid pension cost, the employer had to recognize a minimum liability if the accumulated benefit obligation exceeded the fair value of plan assets.

By adopting SFAS 158 employers will not have the accrued/prepaid pension account or the recognition of a minimum liability. Instead, a net asset will be recognized if the plan assets exceed the projected benefit obligation or a net liability will be recognized if the projected benefit obligation exceeds the plan assets, as shown in the following example.

This article will present an example of one employee (could easily be extended to combined groups of similar employees to account for all participants of a plan) enrolled in a defined benefit pension plan for a 5-year period. The calculation of the projected benefit obligation, net periodic pension expense, net pension asset/liability, and journal entries (including income taxes) will be shown and explained for a 5-year period including selected T-accounts.

**EXAMPLE**

Sam Parker was hired by the ABC Company on January 1, 2008 and will retire on December 31, 2112. The company has a defined benefit pension plan that pays a lump sum upon retirement of \$1,000 for each year of service after the date of hire. On January 1, 2010, ABC Company amended the plan to pay \$1,500 for each year of service at retirement date, retroactive for one year of prior service.

Assume: The discount rate is 10%. The expected and actual return on plan assets will be 10% for all years other than 2009 which is 12%. In order to show income taxes, each year will have revenue of \$3,000 and no expenses other than net periodic pension expense.

Service cost is the only component of net pension expense for 2008.

Service cost	
(P.V. at 10% of \$1, 000 in 4 years= 0.683013 x \$1,000)	\$ 683.01
Net periodic pension expense for 2008	\$ 683.01

Service cost is calculated by taking the present value of the future cost of benefits earned by Sam during 2008 and increases the projected benefit obligation. ABC Company contributed \$700.00 to the plan in 2008.

Date	Account Titles and Explanation	Debit	Credit
2008	Pension Expense	683.01	
	Pension Asset/Liability		683.01
	<i>To record pension expense</i>		
	Pension Asset/Liability	700.00	
	Cash		700.00
	<i>To record funding the pension plan</i>		
	Income Tax Expense	926.80	
	Deferred Tax Liability		6.80
	Taxes Payable		920.00
	<i>To record income tax expense</i>		

<b>Pension Asset/Liability</b>		<b>Deferred Tax Asset</b>		<b>Deferred Tax Liability</b>		<b>Taxes Payable</b>	
700.00	683.01				6.80		920.00
16.99					6.80		920.00
<b>AOCI</b>		<b>Def Tax Benefit-AOCI</b>		<b>Pension Expense</b>		<b>Income Tax Expense</b>	
				683.01		926.80	
				683.01		926.80	
Off-Balance Sheet Accounts							
<b>PBO</b>		<b>Pension Assets</b>					
	683.01		700.00				
	683.01		700.00				

ABC Company would report a \$16.99 net pension asset as of December 31, 2008 since the pension plan is overfunded (projected benefit obligation is less than the fair value of plan assets).

Accounting income amounts to \$2,316.99 (sales \$3,000.00 – pension expense \$683.01) and income tax expense \$926.80 (\$2,316.99 x 40%).

Pension expense of \$683.01 is deducted for accounting income and \$700.00 pension expense deducted for taxable income. The difference of \$16.99 multiplied by the tax rate, 40%, creates a deferred tax liability of \$6.80.

Income tax expense would be shown in the income statement as current tax expense of \$920.00 and deferred tax expense of \$6.80.

The detail of accounting income and income tax expense for subsequent years will not be shown, but would be calculated as shown for 2008.

The components of net pension expense for 2009 are as follows:

Service cost		
P.V. at 10% of \$1, 000 in 3 years= 0.751315 x \$1,000		\$ 751.31
Interest cost on the beginning balance of PBO		
10% x \$683.01		68.30
Expected return on plan assets		
10% x \$700.00		<u>(70.00)</u>
Net periodic pension expense for 2009		\$ 749.61

Date	Account Titles and Explanation	Debit	Credit
2009	Pension Expense	749.61	
	Pension Asset/Liability		749.61
	<i>To record pension expense</i>		
	Pension Asset/Liability	14.00	
	Deferred Tax Benefit-AOCI	5.60	
	AOCI - Net Gain		14.00
	Deferred Tax Asset		5.60
	<i>To record unexpected gain from plan assets</i>		
	Pension Asset/Liability	700.00	
	Cash		700.00
	<i>To record funding the pension plan</i>		
	Income Tax Expense	900.16	
	Deferred Tax Liability	6.80	
	Deferred Tax Asset	13.04	
	Taxes Payable		920.00
	<i>To record income tax expense</i>		

Pension Asset/Liability		Deferred Tax Asset		Deferred Tax Liability		Taxes Payable	
16.99			5.60		6.80		920.00
700.00	749.61	13.04		6.80			920.00
14.00							
	18.62	7.44					1,840.00
AOCI		Def Tax Benefit-AOCI		Pension Expense		Income Tax Expense	
	14.00	5.60		683.01		926.80	
				749.61		900.16	
	14.00	5.60		1,432.62		1,826.96	
Off-Balance Sheet Accounts							
PBO		Pension Assets					
	683.01	700.00					
	68.30	84.00					
	751.31	700.00					
	1,502.62	1,484.00					

ABC Company would report a \$18.62 net pension liability in the 2009 balance sheet since the pension plan is underfunded (projected benefit obligation is greater than the fair value of plan assets).

The actual return on plan assets was \$84.00 (12% x \$700.00, the beginning balance of plan assets) and the expected return was \$70.00 resulting in an unexpected gain of \$14.00. Gains and losses from the return on plan assets that are higher or lower than expected gains and losses are deferred and not included in pension expense for the current year. The unexpected gain on plan assets would be reported as *other comprehensive income* in the comprehensive income statement and included in the total of *accumulated other comprehensive income* in the balance sheet.

In accordance with SFAS 87, if a net gain or net loss balance at the beginning of the year exceeds the higher of 10% of the projected benefit obligation or 10% of the plan assets, the excess is divided by the average remaining service period of active employees and included in pension expense for the period.

Interest cost is the increase in the projected benefit obligation due to the passage of time. Sam Parker is one year closer to retirement at the end of 2009.

The components of net pension expense for 2010 are as follows:

Service cost	
P.V. at 10% of \$1,500 in 2 years = $0.826446 \times \$1,500$	\$1,239.67
Interest cost on the beginning balance of PBO	
$10\% \times (\$1,502.62 + \$375.66)$	187.83
Expected return on plan assets	
$10\% \times \$1,484.00$	(148.40)
Amortization of prior service cost ( $\$375.66 / 3$ )	125.22
Net periodic pension expense for 2010	\$1,404.32

ABC Company amended the plan to pay \$1,500 for each year of service at retirement date, retroactive for one year of prior service at the beginning of 2010. This will require an entry in the amount of \$375.66 (P.V. at 10% of \$500.00 in 3 years =  $0.751315 \times \$500.00$ ) to record the prior service cost for 2009. An increase in prior service cost also increases the projected benefit obligation and pension asset/liability. In addition, the increase of prior service cost would be reported as *other comprehensive income* in the comprehensive income statement and included in the total of *accumulated other comprehensive income* in the balance sheet.

Interest cost for 2010 is based on the beginning balance of the projected benefit obligation plus the addition of prior service cost.

Amortization of prior service cost is included in pension expense and is calculated by dividing the prior service cost by the average remaining service life of the employees. The amortization of prior service cost would be reported as *other comprehensive income* in the comprehensive income statement and included in the total of *accumulated other comprehensive income* in the balance sheet.

Date	Account Titles and Explanation	Debit	Credit
2010	AOCI - Prior Service Cost	375.66	
	Deferred Tax Asset	150.26	
	Pension Asset/Liability		375.66
	Deferred Tax Benefit-AOCI		150.26
	<i>To record prior service cost for plan amendment</i>		
	Pension Expense	1,279.10	
	Pension Asset/Liability		1,279.10
	<i>To record pension expense</i>		
	Pension Expense	125.22	
	Deferred Tax Benefit-AOCI	50.09	
	AOCI - Prior Service Cost		125.22
	Deferred Tax Asset		50.09
	<i>To record amortization of prior service cost</i>		
	Pension Asset/Liability	1,500.00	
	Cash		1,500.00
	<i>To record funding the pension plan</i>		
	Income Tax Expense	638.27	
	Deferred Tax Asset		38.27
	Taxes Payable		600.00
	<i>To record income tax expense</i>		

<b>Pension Asset/Liability</b>		<b>Deferred Tax Asset</b>		<b>Deferred Tax Liability</b>		<b>Taxes Payable</b>	
	18.62		7.44				1,840.00
	375.66		150.26				600.00
1,500.00	1,279.10						
	173.38		69.34				2,440.00
<b>AOCI</b>		<b>Def Tax Benefit-AOCI</b>		<b>Pension Expense</b>		<b>Income Tax Expense</b>	
	14.00		5.60	1,432.62		1,826.96	
375.66	125.22		50.09	1,279.10		638.27	
				125.22			
236.44			94.57	2,836.94		2,465.23	
Off-Balance Sheet Accounts							
<b>PBO</b>		<b>Pension Assets</b>					
	1,502.62		1,484.00				
	375.66		148.40				
	187.83		1,500.00				
	1,239.67						
	3,305.78		3,132.40				

ABC Company would report a \$173.38 net pension liability in the 2010 balance sheet since the pension plan is underfunded (projected benefit obligation is greater than the fair value of plan assets).

The components of net pension expense for 2011 are as follows:

Service cost		
P.V. at 10% of \$1,500 in 1 year = 0.909091 x \$1,500		\$1,363.64
Interest cost on the beginning balance of PBO		
10% x \$3,305.78		330.58
Expected return on plan assets		
10% x \$3,132.40		(313.24)
Amortization of prior service cost (\$375.66 / 3)		<u>125.22</u>
Net periodic pension expense for 2011		\$1,506.20

Date	Account Titles and Explanation	Debit	Credit
2011	Pension Expense	1,380.98	
	Pension Asset/Liability		1,380.98
	<i>To record pension expense</i>		
	Pension Expense	125.22	
	Deferred Tax Benefit-AOCI	50.09	
	AOCI - Prior Service Cost		125.22
	Deferred Tax Asset		50.09
	<i>To record amortization of prior service cost</i>		
	Pension Asset/Liability	1,500.00	
	Cash		1,500.00
	<i>To record funding the pension plan</i>		
	Income Tax Expense	597.52	
	Deferred Tax Asset	2.48	
	Taxes Payable		600.00
	<i>To record income tax expense</i>		

<b>Pension Asset/Liability</b>		<b>Deferred Tax Asset</b>		<b>Deferred Tax Liability</b>		<b>Taxes Payable</b>	
	173.38	69.34				2,440.00	
1,500.00	1,380.98	2.48	50.09			600.00	
	54.36	21.73				3,040.00	
<b>AOCI</b>		<b>Def Tax Benefit-AOCI</b>		<b>Pension Expense</b>		<b>Income Tax Expense</b>	
236.44			94.57	2,836.94		2,465.23	
	125.22	50.09		1,380.98		597.52	
111.22			44.48	125.22			
				4,343.14		3,062.75	
Off-Balance Sheet Accounts							
<b>PBO</b>		<b>Pension Assets</b>					
	3,305.78	3,132.40					
	330.58	313.24					
	1,363.64	1,500.00					
	5,000.00	4,945.64					

ABC Company would report a \$54.36 net pension liability in the 2011 balance sheet since the pension plan is underfunded (projected benefit obligation is greater than the fair value of plan assets).

The components of net pension expense for 2012 are as follows:

Service Cost	\$1,500.00
Interest cost on the beginning balance of PBO	
10% x \$5,000.00	500.00
Expected return on plan assets	
10% x \$4,945.64	(494.56)
Amortization of prior service cost (\$375.66 / 3)	125.22
Net gain from 2009	( 14.00)
 Net periodic pension expense for 2012	 \$1,616.66

Date	Account Titles and Explanation	Debit	Credit
2012	Pension Expense	1,505.44	
	Pension Asset/Liability		1,505.44
	<i>To record pension expense</i>		
	Pension Expense	125.22	
	Deferred Tax Benefit-AOCI	50.09	
	AOCI - Prior Service Cost		125.22
	Deferred Tax Asset		50.09
	<i>To record amortization of prior service cost</i>		
	AOCI - Prior Service Cost	14.00	
	Deferred Tax Asset	5.60	
	Pension Expense		14.00
	Deferred Tax Benefit-AOCI		5.60
	<i>To record amortization of prior service cost</i>		
	Pension Asset/Liability	1,559.80	
	Cash		1,559.80
	<i>To record funding the pension plan</i>		
	Income Tax Expense	553.34	
	Deferred Tax Asset	22.74	
	Taxes Payable		576.08
	<i>To record income tax expense</i>		

Pension Asset/Liability		Deferred Tax Asset		Deferred Tax Liability		Taxes Payable	
	54.36	21.73					3,040.00
	1,505.44	5.60	50.09				576.08
1,559.80		22.74					
			0.02				3,616.08
AOCI		Def Tax Benefit-AOCI		Pension Expense		Income Tax Expense	
111.22			44.48	4,343.14		3,062.75	
14.00	125.22	50.09	5.60	1,505.44		553.34	
				125.22			
					14.00		
		0.01		5,959.80		3,616.09	
Off-Balance Sheet Accounts							
PBO		Pension Assets					
	5,000.00	4,945.64					
	1,500.00	494.56					
	500.00	1,559.80					
	7,000.00	7,000.00					

Rounding errors have not been corrected with the 2012 entries.

**SUMMARY**

Year	Pension Expense	Return on Plan Assets	Cash Payments
2008	\$ 683.01	\$ .00	\$ 700.00
2009	749.61	84.00	700.00
2010	1,404.32	148.40	1,500.00
2011	1,506.20	313.24	1,500.00
2012	<u>1,616.66</u>	<u>494.56</u>	<u>1,559.80</u>
Totals	\$5,959.80	\$1,040.20	\$5,959.80

On December 31, 2012, both off-balance sheet accounts, PBO and Pension Assets have a \$7,000 balance. The return on plan assets plus cash payments equal \$7,000.00, the amount of the pension benefit owed to Sam Parker. Both net income and comprehensive income for the 5-year period equal \$6,034.32 (recall revenue of \$3,000.00 each year and pension expense as the only expense each year).