
Computation of Deferred Tax Liabilities

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This article is one of a series of financial management articles that examine financial statements and financial analysis. Income tax liabilities arise from differences between balance sheet values of certain assets and liabilities, and the tax basis of those same assets and liabilities. Deferred taxes reconcile the tax basis of balance sheet assets and liabilities with the basis currently being used to value assets and liabilities on a balance sheet, which is usually market value. The question to be answered is as follows: if all assets could be liquidated for exactly the amount shown on the balance sheet, what would be the resulting taxable income and tax liability? To illustrate deferred tax liabilities, this article will use balance sheets for a cash crop farm in west central Indiana.

Tables 1 and 2 illustrate a market value balance sheet with and without deferred tax liabilities. Table 1 contains a beginning, an ending, and an average balance sheet without deferred tax liabilities. Table 2 is identical to Table 1 except for its inclusion of the current portion of deferred taxes and the noncurrent portion of deferred taxes. Tables 3 and 4 present the computations of deferred tax liabilities. A 30 percent tax rate is used to compute deferred tax liabilities.

Table 1. Market Value Balance Sheet for White County Farms, 2019.

		Beginning	Ending	Average
ASSETS:				
Cash	(1)	2,110,287	2,296,378	2,203,333
Marketable Securities	(2)	0	0	0
Accounts Receivable	(3)	0	0	0
Fertilizer and Supplies	(4)	52,701	54,340	53,521
Investment in Growing Crops	(5)	0	0	0
Crops Held for Sale and Feed	(6)	961,117	897,660	929,389
Market Livestock	(7)	0	0	0
TOTAL CURRENT ASSETS (Add Lines 1 through 7)	(8)	3,124,105	3,248,378	3,186,242
Breeding Livestock	(9)	0	0	0
Machinery and Equipment	(10)	1,527,584	1,544,369	1,535,977
Buildings	(11)	87,292	82,927	85,110
Investments in Cooperatives	(12)	0	0	0
Land	(13)	5,861,250	5,888,250	5,874,750
TOTAL NONCURRENT ASSETS (Add Lines 9 through 13)	(14)	7,476,126	7,515,546	7,495,836
TOTAL ASSETS (Add Lines 8 and 14)	(15)	10,600,231	10,763,924	10,682,078
LIABILITIES AND OWNER EQUITY:				
Accounts Payable	(16)	0	0	0
Taxes Payable	(17)	0	0	0
Accrued Expenses	(18)	0	0	0
Current Portion: Deferred Taxes	(19)	0	0	0
Notes Due Within One Year	(20)	500,000	500,000	500,000
Current Portion of Term Debt	(21)	46,948	52,373	49,661
Accrued Interest	(22)	29,663	31,139	30,401
TOTAL CURRENT LIABILITIES (Add Lines 16 through 22)	(23)	576,611	583,512	580,062
Noncurrent Portion: Deferred Taxes	(24)	0	0	0
Noncurrent Portion: Notes Payable	(25)	433,522	493,748	463,635
Noncurrent Portion: Real Estate Debt	(26)	479,904	465,082	472,493
TOTAL NONCURRENT LIABILITIES (Add Lines 24 through 26)	(27)	913,426	958,830	936,128
TOTAL LIABILITIES (Add Lines 23 and 27)	(28)	1,490,037	1,542,342	1,516,190
OWNER EQUITY (Subtract Line 28 from Line 15)	(29)	9,110,194	9,221,582	9,165,888
TOTAL LIABILITIES AND OWNER EQUITY (Add Lines 28 and 29)	(30)	10,600,231	10,763,924	10,682,078

Table 2. Market Value Balance Sheet for White County Farms with Deferred Tax Liabilities, 2019.


		Beginning	Ending	Average
ASSETS:				
Cash	(1)	2,110,287	2,296,378	2,203,333
Marketable Securities	(2)	0	0	0
Accounts Receivable	(3)	0	0	0
Fertilizer and Supplies	(4)	52,701	54,340	53,521
Investment in Growing Crops	(5)	0	0	0
Crops Held for Sale and Feed	(6)	961,117	897,660	929,389
Market Livestock	(7)	0	0	0
TOTAL CURRENT ASSETS (Add Lines 1 through 7)	(8)	3,124,105	3,248,378	3,186,242
Breeding Livestock	(9)	0	0	0
Machinery and Equipment	(10)	1,527,584	1,544,369	1,535,977
Buildings	(11)	87,292	82,927	85,110
Investments in Cooperatives	(12)	0	0	0
Land	(13)	5,861,250	5,888,250	5,874,750
TOTAL NONCURRENT ASSETS (Add Lines 9 through 13)	(14)	7,476,126	7,515,546	7,495,836
TOTAL ASSETS (Add Lines 8 and 14)	(15)	10,600,231	10,763,924	10,682,078
LIABILITIES AND OWNER EQUITY:				
Accounts Payable	(16)	0	0	0
Taxes Payable	(17)	0	0	0
Accrued Expenses	(18)	0	0	0
Current Portion: Deferred Taxes	(19)	295,247	276,258	285,753
Notes Due Within One Year	(20)	500,000	500,000	500,000
Current Portion of Term Debt	(21)	46,948	52,373	49,661
Accrued Interest	(22)	29,663	31,139	30,401
TOTAL CURRENT LIABILITIES (Add Lines 16 through 22)	(23)	871,858	859,770	865,814
Noncurrent Portion: Deferred Taxes	(24)	583,108	587,926	585,517
Noncurrent Portion: Notes Payable	(25)	433,522	493,748	463,635
Noncurrent Portion: Real Estate Debt	(26)	479,904	465,082	472,493
TOTAL NONCURRENT LIABILITIES (Add Lines 24 through 26)	(27)	1,496,534	1,546,756	1,521,645
TOTAL LIABILITIES (Add Lines 23 and 27)	(28)	2,368,392	2,406,526	2,387,459
OWNER EQUITY (Subtract Line 28 from Line 15)	(29)	8,231,839	8,357,398	8,294,619
TOTAL LIABILITIES AND OWNER EQUITY (Add Lines 28 and 29)	(30)	10,600,231	10,763,924	10,682,078



Table 3. Current Portion of Deferred Taxes.

<u>January 1</u>	Market Value	Tax Basis	Difference
Accounts Receivable	0	0	0
Fertilizer and Supplies	52,701	0	52,701
Crops Held for Sale and Feed	961,117	0	961,117
Market Livestock	0	0	0
EXCESS OF CARRYING VALUE OVER TAX BASIS OF CURRENT ASSETS			1,013,818
Deferred Income Liability on Crop Insurance, Disaster Payments, and Contracts			0
TOTAL DEFERRED INCOME			1,013,818
Accounts Payable			0
Income Taxes Payable (State and Local Only)			0
Accrued Expenses			0
Accrued Interest			29,663
TOTAL DEFERRED EXPENSES			29,663
NET DEFERRED INCOME SUBJECT TO INCOME TAX			984,155
ESTIMATED DEFERRED TAX LIABILITY RELATED TO CURRENT ASSETS AND CURRENT LIABILITIES			295,247
 <u>December 31</u>			
	Market Value	Tax Basis	Difference
Accounts Receivable	0	0	0
Fertilizer and Supplies	54,340	0	54,340
Crops Held for Sale and Feed	897,660	0	897,660
Market Livestock	0	0	0
EXCESS OF CARRYING VALUE OVER TAX BASIS OF CURRENT ASSETS			952,000
Deferred Income Liability on Crop Insurance, Disaster Payments, and Contracts			0
TOTAL DEFERRED INCOME			952,000
Accounts Payable			0
Income Taxes Payable (State and Local Only)			0
Accrued Expenses			0
Accrued Interest			31,139
TOTAL DEFERRED EXPENSES			31,139
NET DEFERRED INCOME SUBJECT TO INCOME TAX			920,861
ESTIMATED DEFERRED TAX LIABILITY RELATED TO CURRENT ASSETS AND CURRENT LIABILITIES			276,258

As illustrated in Table 3, the current portion of deferred taxes largely arises from crop inventories. These inventories have a basis of zero because the expenses related to producing these crops have been deducted in the previous year. Inclusion of the current portion of deferred taxes reduces average working capital from \$2,664,866 to \$2,388,608 or approximately 10.4 percent. This farm still has substantial liquidity after accounting for the current portion of deferred taxes. However, it is important to note that the average tax liability is not small (\$285,753) and this money could have certainly been used to cushion losses or to assist with asset purchases.

 Table 4. Noncurrent Portion of Deferred Taxes.			
	Market Value	Tax Basis	Difference
<u>January 1</u>			
Raised Breeding Livestock	0	0	0
Purchased Breeding Livestock	0	0	0
Machinery and Equipment	1,527,584	763,792	763,792
Buildings	87,292	21,823	65,469
Investments in Cooperatives	0	0	0
Land	5,861,250	2,803,125	3,058,125
DEFERRED TAXABLE INCOME RELATED TO EXCESS OF MARKET VALUE OVER BASE VALUE			3,887,386
ESTIMATED DEFERRED TAX LIABILITY RELATED TO VALUATION EQUITY			583,108
<u>December 31</u>			
	Market Value	Tax Basis	Difference
Raised Breeding Livestock	0	0	0
Purchased Breeding Livestock	0	0	0
Machinery and Equipment	1,544,369	772,185	772,184
Buildings	82,927	20,732	62,195
Investments in Cooperatives	0	0	0
Land	5,888,250	2,803,125	3,085,125
DEFERRED TAXABLE INCOME RELATED TO EXCESS OF MARKET VALUE OVER BASE VALUE			3,919,504
ESTIMATED DEFERRED TAX LIABILITY RELATED TO VALUATION EQUITY			587,926

The noncurrent portion of deferred taxes is estimated in Table 4. Looking at Table 2, which contains the numbers illustrated in Table 4, average deferred taxes on noncurrent assets is \$585,517. A sizable portion of these taxes arises from the potential sale of land, which for this farm was primarily purchased more than 10 years ago. However, the deferred taxes for machinery and equipment are also quite large. Deferred taxes for machinery and equipment are due to the fact that tax depreciation is typically quite large compared to the actual decline in machinery and equipment value (i.e., economic depreciation). In recent years, tax depreciation has been relatively high due to accelerated depreciation rules and large section 179 expense deductions. The section 179 expense deduction allowed qualifying farmers to recover all or part of the cost of machinery and equipment in the year it was purchased on their tax forms. If used,

this deduction created a large reduction of the tax basis of machinery and equipment in the first year of ownership, and subsequently could result in large tax obligations if the machinery and equipment have to be sold.

This article illustrated deferred tax liabilities for a cash crop farm in west central Indiana. The recent low crop prices could make deferred taxes an important issue for farms with limited liquidity levels. If crop inventories from previous years need to be liquidated to meet cash flow requirements, taxes will have to be paid on the income from these sales. Taxes are also likely to be incurred if a farm is forced to sell assets that were purchased in recent years.