Computation of Deferred Tax Liability — An Example



Department of Agricultural Economics — www.agmanager.info

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

Michael R. Langemeier

Professor, Agricultural Economics

An income tax liability arises from differences between balance sheet values of certain assets and liabilities and the tax basis of those same assets and liabilities. Farm financial statements, especially the balance sheet, should be prepared with recognition given to this income tax liability, or deferred taxes.

Deferred taxes reconcile the tax basis of a balance sheet with the basis currently being used for valuing assets and recording liabilities. That is, if all assets could be liquidated for exactly the amount shown on the balance sheet, and if all liabilities could be satisfied by payment of exactly the amount shown on the balance sheet, then what taxable income would result and what would be the tax liability?

The asset and liability values outlined in the example balance sheet (Table 1) are used to show the derivation of deferred taxes, or income tax liability, using the following two-step procedure.¹

Step 1. Computation of current portion of deferred taxes. (See Table 2 for example computations.) The total amount by which the balance sheet value of current assets exceeds their taxable basis is calculated. Deferred income, such as crop insurance proceeds — reported for financial statements, but not recorded for tax purposes and for which no asset value exists on the balance sheet — must be included. Subtract the amount of current liabilities that result in deductions for tax purposes, such as accounts

payable and accrued interest, from total deferred income calculated. The current portion of deferred taxes is then computed by multiplying an estimated total tax rate — which reflects federal, state, local, and social security taxing authorities — times the net deferred income.

Step 2. Computation of noncurrent portion of deferred taxes related to differences between market values and tax basis or base value of noncurrent assets. (See Table 3 for example computations.) Calculate the difference between the balance sheet market values of all noncurrent assets and their tax basis. Noncurrent assets include breeding livestock, machinery and equipment, real estate, and improvements. The tax basis will be zero for raised breeding livestock that have not been capitalized and depreciated for tax purposes. The noncurrent portion of deferred taxes is computed by multiplying the calculated deferred taxable income times the estimated total tax rate for capital asset sales.

The current and noncurrent portion of deferred taxes are recorded on the balance sheet as liabilities. If the total deferred income value, or taxable income, computed in steps 1 and 2 was negative, then a deferred tax refund would result, with the refund recorded as an asset on the balance sheet.

For more information on the computation of deferred taxes, see the publication *Financial Guidelines for Agricultural Producers*, revised January 2008.

¹The federal and state income tax rates outlined in the following tables were used as an example to demonstrate the methodology of computing deferred taxes. These income tax rates will vary for different farm businesses.

(Add Lines 28 and 29)

Balance Sheet (Farm Business Only)						
ASSETS	Jan. 1	Dec. 31	Average			
Cash(1)	\$ 48,293	\$ 54,717	\$ 51,505			
Marketable Securities(2)	0	0	0			
Accounts Receivable(3)	1,897_	1,999	1,948			
Fertilizer and Supplies(4)	26,009_	32,049	29,029			
Investment in Growing Crops(5)	0	0	0			
Crops Held for Sale and Feed(6)	156,323_	186,620	171,472			
Market Livestock(7)	80,656	81,369	81,013			
TOTAL CURRENT ASSETS(8)	\$ 313,178	\$ 356,754	\$ 334,966			
(Add Lines 1 through 7)						
Breeding Livestock(9)	\$ 56,773	\$ 57,259	\$ 57,016			
Machinery and Equipment(10)	242,339	268,556	255,448			
Buildings(11)	35,431	38,855	37,143			
Investments in Cooperatives(12)	22,103	24,248	23,176			
Land(13)	603,135	622,980	613,058			
TOTAL NONCURRENT ASSETS(14) (Add Lines 9 through 13)	\$ 959,781	\$1,011,898	\$ 985,840			
TOTAL ASSETS(15) (Add Lines 8 and 14)	\$1,272,959	\$1,368,652	\$ 1,320,806			
LIABILITIES AND OWNER EQUITY:						
Accounts Payable(16)	\$ 0	\$ O	\$ O			
Taxes Payable(17)		0	0			
Accrued Expenses(18)	4,217	4,300	4,259			
Current Portion: Deferred Taxes(19)	59,453	70,413	64,933			
Notes Due Within One Year(20)	122,666	128,257	125,462			
Current Portion of Term Debt(21)	15,483	16,217	15,850			
Accrued Interest(22)	2,000	2,000	2,000			
TOTAL CURRENT LIABILITIES(23) (Add Lines 16 through 22)	\$ 203,819	\$ 221,187	\$ 212,503			
Noncurrent Portion: Deferred Taxes(24)	\$ 57,345	\$ 60,616	\$ 58,981			
Noncurrent Portion: Notes Payable(25)	64,811	67,885	66,348			
Noncurrent Portion: Real Estate Debt(26)	135,742	142,182	138,962			
TOTAL NONCURRENT LIABILITIES(27) (Add Lines 24 through 26)	\$ 257,898	\$ 270,683	\$ 264,291			
TOTAL LIABILITIES(28) (Add Lines 23 and 27)	\$ 461,717	\$ 491,870	\$ 476,794			
OWNER EQUITY(29) (Subtract Line 28 from Line 15)	\$ 811,242	\$ 876,782	\$ 844,012			
TOTAL LIABILITIES AND OWNER EQUITY (30)	\$1,272,959	\$1,368,652	\$ 1,320,806			

Table 2. Current Portion of Deferred Taxes

January 1			
	Market Value	Tax Basis	Difference
Accounts Receivable Fertilizer and Supplies Crops Held for Sale and Feed Market Livestock	\$ 1,897 26,009 156,323 80,656	\$ 0 0 0 60,492	\$ 1,897 26,009 156,323 20,164
EXCESS OF CARRYING VALUE OVER TAX BASIS OF CURRE	NT ASSETS		\$ 204,393
Deferred Income Liability on Crop Insurance, Disaster Payments, and C	Contracts		\$ 0
TOTAL DEFERRED INCOME			\$ 204,393
Accounts Payable Income Taxes Payable (State and Local Only) Accrued Expenses Accrued Interest			0 0 4,217 2,000
TOTAL DEFERRED EXPENSES			\$ 6,217
NET DEFERRED INCOME SUBJECT TO INCOME TAX			\$ 198,176
ESTIMATED DEFERRED TAX LIABILITY RELATED TO CURRENT ASSETS AND CURRENT LIABILITIES			\$ 59,453
December 31	Market Value	Tax Basis	Difference
Accounts Receivable Fertilizer and Supplies Crops Held for Sale and Feed Market Livestock	\$ 1,999 32,049 186,620 81,369	\$ 0 0 0 61,027	\$ 1,999 32,049 186,620 20,342
EXCESS OF CARRYING VALUE OVER TAX BASIS OF CURRE	NT ASSETS		\$ 241,010
Deferred Income Liability on Crop Insurance, Disaster Payments, and C	Contracts		\$ O
TOTAL DEFERRED INCOME			\$ 241,010
Accounts Payable Income Taxes Payable (State and Local Only) Accrued Expenses Accrued Interest			\$ 0 0 4,300 2,000
TOTAL DEFERRED EXPENSES			\$ 6,300
NET DEFERRED INCOME SUBJECT TO INCOME TAX			\$ 234,710
ESTIMATED DEFERRED TAX LIABILITY RELATED TO CURRENT ASSETS AND CURRENT LIABILITIES			\$ 70,413

Table 3. Noncurrent Portion of Deferred Taxes

January 1			
<u>, </u>	Market Value	Tax Basis	Difference
Raised Breeding Livestock Purchased Breeding Livestock Machinery and Equipment Buildings Investments in Cooperatives Land	\$ 28,385 28,388 242,339 35,431 22,103 603,135	\$ 0 14,200 121,170 17,715 22,103 402,290	\$ 28,385 14,188 121,169 17,716 0 200,845
DEFERRED TAXABLE INCOME RELATED TO EXCESS OF MARKET VALUE OVER BASE VALUE			\$ 382,303
ESTIMATED DEFERRED TAX LIABILITY RELATED TO VA	ALUATION EC	QUITY	\$ 57,345
December 31	Value	Market Basis	Tax Difference
Raised Breeding Livestock Purchased Breeding Livestock Machinery and Equipment Buildings Investments in Cooperatives Land	\$ 28,630 28,629 268,556 38,855 24,248 622,980	\$ 0 14,315 134,280 19,425 24,248 415,525	\$ 28,630 14,314 134,276 19,430 0 207,455
DEFERRED TAXABLE INCOME RELATED TO EXCESS OF MARKET VALUE OVER BASE VALUE			\$ 404,105
ESTIMATED DEFERRED TAX LIABILITY RELATED TO VALUATION EQUITY			\$ 60,616

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Publications from Kansas State University are available on the World Wide Web at: www.ksre.ksu.edu

Publications are reviewed or revised annually by appropriate faculty to reflect current research and practice. Date shown is that of publication or last revision. Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, credit Michael R. Langemeier, *Computation of Deferred Tax Liability — An Example*, Kansas State University, November 2011.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

MF-2358 November 2011

K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, Gary Pierzynski, Interim Director.