

Chapter 9¹

Accounting for Short-Term or Current Liabilities

Learning Objectives

- Define short-term and current liabilities.
- Define long-term and noncurrent liabilities.
- Distinguish between short-term and long-term liabilities.
- Describe the loan amortization schedule and its role in decomposing long-term liabilities into their current and noncurrent components.
- Prepare entries to account for note payable.
- Compute and record employee payroll withholdings or liabilities and their payment.
- Compute and record employer payroll expenses, liabilities and their payment.
- Describe FICA, FWT, SWT, FUTA and SUTA.
- Account for estimated liabilities, including health and retirement benefits, bonuses and warranties.
- Explain how to account for contingent liabilities.
- Compute the times interest earned ratio.
- Describe the process for accruing and paying estimated corporate income taxes.
- Provide an example of a timing difference resulting in a deferred income tax liability.

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Introductory Financial Accounting – Cataldo (WCU ACC201)

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A *liability* is a probably future payment of company assets or services, that the company is presently obligated to make, and resulting from past transactions or events. Critical factors are:

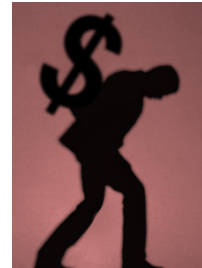
1. A past transaction or event.
2. A present obligation.
3. A future payment of assets or services.

No liability is reported when one or more of these characteristics are absent.

For example, wages become payable to employees only after work has been performed. The performance of work by an employee represents a past event, resulting in a present obligation, and requiring a future payment, on payday.

Liability Classification

Liabilities are classified as short-term or long-term. Alternatively, they may be referred to as current or noncurrent. Short-term or current liabilities are obligations requiring payment in one year or one operating cycle (e.g., wages), whichever is longer. Long-term or noncurrent liabilities are obligations requiring payment in more than one year (e.g., the noncurrent portion of a 30-year mortgage) or one operating cycle, whichever is longer. Generally, think in terms of one year or less for current or short-term classification.



Uncertainties Associated with Liabilities

Three important questions must be asked to reduce the uncertainties associated with accounting for liabilities, as follows:

1. Who gets paid?
2. When do they get paid?
3. How much do they get paid?

Known liabilities, also referred to as *definitely determinable liabilities*, include accounts payable, notes payable, sales taxes payable, salaries or wages payable, unearned revenues, and leases.

Current (*Short-Term*) Liabilities

Current liabilities include accounts payable, short-term notes payable, wages payable, warranty liabilities, lease liabilities, taxes payable, and unearned revenues.

Noncurrent (*Long-Term*) Liabilities

Noncurrent liabilities include long-term notes payable, warranty liabilities, lease liabilities, and bonds payable. It is common for some long-term liabilities to require a break down into both current and noncurrent components.

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Current v. Noncurrent Liabilities – A Loan Amortization Schedule Example

To illustrate how a liability is decomposed into its current and noncurrent components for balance sheet presentation, assume that a firm borrows \$10,000 for 18 months at 12 percent per year (1 percent per month). The money is borrowed at time period zero.

	12%					
	<u>Payment</u>	<u>Interest</u>	<u>Principal</u>	<u>Balance</u>	<u>Current</u>	<u>Noncurrent</u>
0				\$10,000	\$4,320	\$5,680
1	\$1,379	\$1,200	\$179	\$9,821	\$4,838	\$4,983
2	\$1,379	\$1,179	\$200	\$9,621	\$5,419	\$4,202
3	\$1,379	\$1,154	\$225	\$9,396	\$6,069	\$3,327
4	\$1,379	\$1,128	\$251	\$9,145	\$6,797	\$2,347
5	\$1,379	\$1,097	\$282	\$8,863	\$7,613	\$1,250
6	\$1,379	\$1,064	\$315	\$8,547	\$8,548	\$0
7	\$1,379	\$1,026	\$353	\$8,194	\$8,194	\$0
8	\$1,379	\$983	\$396	\$7,798	\$7,799	\$0
9	\$1,379	\$936	\$443	\$7,355	\$7,355	\$0
10	\$1,379	\$883	\$496	\$6,859	\$6,859	\$0
11	\$1,379	\$823	\$556	\$6,303	\$6,303	\$0
12	\$1,379	\$756	\$623	\$5,680	\$5,680	\$0
13	\$1,379	\$682	\$697	\$4,983	\$4,983	\$0
14	\$1,379	\$598	\$781	\$4,202	\$4,202	\$0
15	\$1,379	\$504	\$875	\$3,327	\$3,327	\$0
16	\$1,379	\$399	\$980	\$2,347	\$2,347	\$0
17	\$1,379	\$282	\$1,097	\$1,250	\$1,250	\$0
18	\$1,400	\$150	\$1,250	\$0	\$0	\$0

At the date of the loan, the current portion of the \$10,000 is \$4,320 and the noncurrent portion is \$5,680, as illustrated in the loan amortization schedule, below. Payments are \$1,379 each month (\$1,400 in the loan payoff month or month 18).

Note that the current and noncurrent portions represent principal, only. The interest on future payments has not been earned by the bank, so there is no present obligation without the passage of time (past transaction).

Accounts Payable

Accounts payable or trade accounts payable are amounts owed to suppliers for products or services purchased on credit. This material was introduced in Chapters 4 and 5.

Sales Taxes Payable

Nearly all states and many cities levy taxes on retail sales. Sales taxes are state as a percent of sales price. The seller collects sales taxes from customers when sales occur and remits these collections (often monthly) to the proper government agency. Until the

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pay these collections to the proper government agency, they continue to record the liability as sales tax payable.

The journal entry to record a \$5,000 cash sale, subject to a 6% sales tax follows:

3-Mar	Cash	\$5,300	
	Sales		\$5,000
	Sales Tax Payable		300
To record cash sale and 6% sales tax.			

The journal entry to be made when the \$300 sales tax is paid to the appropriate government agency follows:

31-Mar	Sales Tax Payable	\$300	
	Cash		\$300
To record payment of sales tax.			

Unearned Revenues

Unearned revenues (or deferred revenues or collections in advance and prepayments) are amounts received in advance from customers for future products or services yet to be performed. For example, your prepayment of \$100 for a concert not yet held would be accounted for, as follows:

5-Mar	Cash	\$100	
	Unearned Ticket Revenue		\$100
To record sale of concert tickets.			

On March 15th, the concert takes place and the revenue is earned:

15-Mar	Unearned Ticket Revenue	\$100	
	Ticket Revenue		\$100
To record concert ticket revenue earned.			

Any balance in unearned revenue account represents a liability, since the product or service has been paid for in advance, but not yet earned.

Short-Term (Current) Notes Payable

A *short-term note payable* is a formal, written promise to pay some specified amount on some future specified date within the longer of one year or the company's operating cycle. Most notes payable are interest bearing. These are negotiable instruments, so they can be transferred to another party through an endorsement. They can arise from a variety of transactions, including (1) replacement of an account payable with a note payable or (2) borrowings from a bank or financial institution, described below.

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Replacing an Account Payable with a Note Payable

Assume that a creditor requires a customer or client to substitute an interest-bearing note payable for a past-due account payable. The Oehlers Corporation owes the Barndt Partnership \$600 in accounts payable and negotiates a \$100 cash payment and a \$500 note payable, bearing interest at a rate of 12 percent, 60-day note, to replace the non-interest bearing account payable. The agreement and transaction takes place on March 15, and is recorded by Oehlers, as follows:



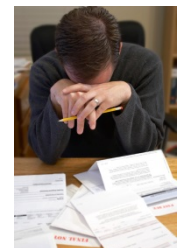
15-Mar	Account payable - Barndt	\$600	
	Cash		\$100
	Note payable - Barndt		500
To record conversion of account payable to 60-day note payable at 12 percent.			

When the note comes due, Oehlers pays Barndt, as follows:

14-May	Note payable - Barndt	\$500	
	Interest expense	10	
	Cash		\$510
To record payment of note and interest ($\$500 \times 12\% \times 60/360$).			

Signing a Note Payable for a Bank Loan

Assume a similar fact pattern, but Oehlers borrows \$500 cash from a bank for 60 days at 12 percent interest. To record the cash receipt:



15-Mar	Cash	\$500	
	Note payable - Bank		\$500
To record \$500 borrowed from the bank for 60 days at 12 percent.			

When the principal and interest are paid, the following journal entry would be made:

14-May	Note payable - Bank	\$500	
	Interest expense	10	
	Cash		\$510
To record payment of note and interest ($\$500 \times 12\% \times 60/360$).			

End-of-Period Accruals for Notes Payable

In both of the above cases, the borrowings occurred on March 15. If Oehlers wanted to prepare monthly financial statements or financial statement at the end of March, an adjusting journal entry would be required to accrue interest expense for the first 15 of the 60 days or term of the note from the bank loan, through month-end, as follows:

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31-Mar	Interest expense	\$2.50	
	Interest payable		\$2.50
To record 15/60 days of interest expense for 60-day, 12 percent notes payable.			

Recall that after the financial statements are prepared for March, the revenue and expense (nominal or temporary) accounts are closed out to the income summary account. Therefore, if Oehlers wanted to prepare monthly financial statements or financial statement at the end of April, an adjusting journal entry would be required to accrue interest expense for the next 30 of the 60 days or term of the note from the bank loan, through month-end, as follows:

30-Apr	Interest expense	\$5.00	
	Interest payable		\$5.00
To record 30/60 days of interest expense for 60-day, 12 percent notes payable.			

The interest payable account, at the end of April, is, now, \$7.50 (\$2.50 plus \$5.00).

On May 14, Oehlers would make the following journal entry to record payment of both principal and interest:

14-May	Note payable - Bank	\$500.00	
	Interest payable	7.50	
	Interest expense	2.50	
	Cash		\$510.00
To record payment of note and interest ($\$500 \times 12\% \times 60/360$).			

Payroll Liabilities



Payroll taxes are withheld from an employee's gross pay by their employer. The employer must be forwarded to governments, periodically.

This is very similar to the procedure for sales taxes, covered earlier in this chapter. Amounts are withheld, liability account balances are established, and these liability balances are eliminated, when

payments are made.

Payroll and Employee Payroll Taxes

Gross pay represents total compensation before deductions withheld by the employer for taxes. Employers are required to withhold employee contributions to Social Security, federal withholding and state withholding tax, at a minimum. If you have ever been employed, you know this, as gross pay is reduced by these taxes that are withheld, resulting in *net pay*, as follows:

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	Gross pay	\$XXX
less:	FICA payable	\$XX
less:	FWT payable	\$XX
less:	SWT payable	\$XX
equal:	Net pay	\$XX

The journal entry for basic salary payments, payroll deduction or amounts withheld, and net pay follows:

Salary expense (gross pay)	\$XXX
FICA payable	\$XX
FWT payable	\$XX
SWT payable	\$XX
Cash (net pay)	\$XX
<i>To record employee payroll.</i>	

Employee FICA Taxes

The entire history of Federal Insurance Contributions Act (FICA) tax rates follows:

Tax		Tax		Tax		Tax	
<u>Year(s)</u>	<u>FICA</u>	<u>Year(s)</u>	<u>FICA</u>	<u>Year(s)</u>	<u>FICA</u>	<u>Year(s)</u>	<u>FICA</u>
1937-49	1.00%	1962	3.13%	1973-77	5.85%	1986-87	7.15%
1950-53	1.50%	1963-65	3.63%	1978	6.05%	1988-89	7.51%
1954-56	2.00%	1966	4.20%	1979-80	6.13%	1990-	7.65%
1957-58	2.25%	1967-68	4.40%	1981	6.65%		
1959	2.50%	1969-70	4.80%	1982-84	6.70%		
1960-61	3.00%	1971-72	5.20%	1985	7.05%		

Note that, over time, the percentage contributed has increased from 1 percent (1937 through 1949) to 7.65 percent (1990-). These rates are likely to rise, again, at some future point in time. Increased tax rates represent one solution to concerns that Social Security with “go broke.”

FICA taxes are imposed on employees at a rate of 7.65 percent. It decomposes into a 6.2 percent OASDI (Old Age, Survivors and Disability Insurance) component and a 1.45 percent Medicare component. The OASDI component only applies to a wage base amount that is inflation-indexed each year. This 6.2 percent is not applied to any wages or salaries in excess of this wage base. Generally, since the amount received from Social Security upon retirement has a maximum or ceiling, the wage base also applies a wage base or maximum or ceiling on the amount to which this tax applies. The ceiling used to also apply to the Medicare component, but this wage base or ceiling was eliminated years ago.



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Employer FICA Taxes

Employers also pay FICA taxes, at the same rate that employees pay. Therefore, the employee pays 6.2 percent and the employer pays 6.2 percent for a total of 12.4 percent for OASDI. The employee pays 1.45 percent and the employer pays 1.45 percent for a total of 2.9 percent Medicare. Therefore, employer and employee pay 12.4 percent plus 2.9 percent for a total of 15.3 percent in combined OASDI and Medicare taxes. FICA taxes, however, are only applied to a maximum wage base. The wage base is inflation-indexed (or increased), periodically. The entire history of FICA tax wage bases follows:

Tax Year	Wage Base	Tax Year	Wage Base	Tax Year	Wage Base	Tax Year	Wage Base	Tax Year	Wage Base	Tax Year	Wage Base
1937-50	\$3,000	1974	\$13,200	1982	\$32,400	1990	\$51,300	1998	\$68,400	2006	\$94,200
1951-54	\$3,600	1975	\$14,100	1983	\$35,700	1991	\$53,400	1999	\$72,600	2007	\$97,500
1955-58	\$4,200	1976	\$15,300	1984	\$37,800	1992	\$55,500	2000	\$76,200	2008	\$102,000
1959-65	\$4,800	1977	\$16,500	1985	\$39,600	1993	\$57,600	2001	\$80,400	2009	\$106,800
1966-67	\$6,600	1978	\$17,700	1986	\$42,000	1994	\$60,600	2002	\$84,900	2010	\$106,800
1968-71	\$7,800	1979	\$22,900	1987	\$43,800	1995	\$61,200	2003	\$87,000	2011	\$106,800
1972	\$9,000	1980	\$25,900	1988	\$45,000	1996	\$62,700	2004	\$87,900	2012	\$110,100
1973	\$10,800	1981	\$29,700	1989	\$48,000	1997	\$65,400	2005	\$90,000	2013	\$113,700

The FICA wage base for 2014 is \$117,000. In addition, there is an additional 0.09% Medicare tax up to a new, additional Medicare wage base of \$200,000.

Employee Income Taxes

In addition to Social Security taxes, the employee has the employer withhold Federal withholding taxes (FWT) and state withholding taxes (SWT). These amounts are reported to the employee on a Form W-2 and the employee uses this form to file his or her Form 1040 and state income tax forms to determine any tax liability or refund. You may have received a Form W-2 from prior employers. An example of a Form W-2 is provided.

This is a Form W-2 Wage and Tax Statement for the year 2008. It includes fields for Employer identification number (2222), Employer's name, address, and ZIP code, and various tax amounts such as Social Security wages, Medicare wages, Social Security tax withheld, Medicare tax withheld, and Federal income tax withheld. The form is issued by the Department of the Treasury—Internal Revenue Service.

The employer files tax forms when sending amounts withheld from employees for FICA and FWT. Internal Revenue Service (IRS) Form 941 is filed quarterly with the IRS, by the employer. It summarizes combined FWT and FICA tax deposits made to the IRS. FWT is based on a Form W-4, filed by the employee with the employer. The employee reports the number of exemptions to the



This is Form 941 Employer's Quarterly Federal Tax Return. It includes fields for Employer identification number, Employer's name, address, and ZIP code, and various tax amounts such as Total income tax withheld, Total deposits for quarter, and Total taxes (paid lines 6 and 10). The form is issued by the Internal Revenue Service.

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employer and the employer uses tables (Circular E) to develop the amount recommended for withholding by the IRS. Effectively, these tables annualize employee earnings and “back into” the amount to be withheld by each employee on this pay-as-you-go (PAYGO) system. An example of a Form 941 is provided.

Employer Payments of Amounts Withheld

When employers make payments to the IRS for FICA and FWT and to the state for SWT, the liability established for these amounts withheld is eliminated, as follows:

FICA payable	\$XX
FWT payable	\$XX
SWT payable	\$XX
Cash (net pay)	\$XX
To record payment of employee payroll taxes withheld.	

Other Employer Payroll Taxes

In addition to the taxes withheld from the employee’s gross pay, and the matching Social Security taxes that employers pay, employers pay Federal Unemployment Taxes (FUTA) and State Unemployment Taxes (SUTA). Again, the federal portion is sent and reported to the IRS (Form 940), while a similar process is followed for state payments and forms. The SUTA rates for states vary, and some states also require employee contributions for unemployment. The unemployment benefits paid by each state also varies. The basic journal entry for the employer’s portion of FICA, FUTA and SUTA follows:

Payroll taxes	\$XXX
FICA payable	\$XX
FUTA payable	\$XX
SUTA payable	\$XX
To record employer payroll taxes.	

When these employer contributions are paid to the IRS and states, the following journal entry is made:

FICA payable (employer)	\$XX
FUTA payable	\$XX
SUTA payable	\$XX
Cash	\$XX
To record payment of payroll taxes.	

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Estimated Liabilities

Estimated liabilities include health and pension benefits, vacation benefits, bonus plans, warranty liabilities, and contingent liabilities. These are known obligations of an uncertain amount that can be reasonably estimated.

Health and Pension Benefits



Many firms provide employees with medical insurance and retirement benefits. Employees may or may not contribute to these benefits. The entry to accrue the employer contribution to these employee benefits follows:

Employee benefits expense	\$XXX	
Employee medical insurance payable		\$XXX
Employee retirement program payable		\$XXX
To record employee benefits.		

Vacation Benefits



Many firms pay vacation benefits or provide for paid absences. Assume, for example, that a salaried employee earns 2 weeks of paid vacation per year. Therefore, for an employee earning \$41,600 per year, the vacation pay for 50 weeks earns 2 weeks of vacation, at a cost of \$32 per week to the firm, as follows:

	Annual salary	\$41,600	\$41,600	
divided by:	Weeks	<u>÷52</u>	<u>÷50</u>	
equals:	Cost of 1 week of vacation	<u>\$800</u>	<u>\$832</u>	<u>-\$32</u>

The weekly vacation pay would be recorded, as follows:

Vacation benefits expense	\$32	
Vacation benefits payable		\$32
To record weekly vacation pay accrued.		

Vacation benefits expense in an operating expense and vacation benefits payable is a current liability. When the employee takes the vacation, vacation benefits payable account balances are reduced with a debit and cash is credited.

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Bonus Plans



Some firms provide bonuses to employees. Bonuses may be based on the firm's net income. Assume, for example, that a firm pays employees a bonus of 10 percent of net income, where net income is expected to approximate \$220,000. The computation of the anticipated bonus expense follows:

B =	0.10 (\$220,000 - B)
	\$22,000 - 0.10B
1.1B =	\$22,000
B =	\$20,000

The year-end journal entry to record this employee benefit follows:

Employee bonus expense	\$20,000	
Employee bonus payable		\$20,000
To record projected bonus cost.		

Warranty Liabilities

A warranty obligates a seller to replace or correct a product or service for a specified time period. The seller uses anticipated warranty costs, based on past experience, to estimate the probability and amount of warranty expense. This expense (debit) is matched to the period in which the sale occurs (matching principle) and the liability (credit) is recorded.

For example, assume that a used automobile is sold for \$24,000, with a two-year or 24,000 mile warranty. Based on past experience, the dealer anticipates warranty cost to approximate 5 percent of the car's sales price (\$24,000 x 5%) or \$1,200. The dealer would record the below:

Warranty expense	\$1,200	
Estimated warranty liability		\$1,200
To record estimated warranty expense.		

To further illustrate, assume that the customer returns the automobile for replacement of a failed part - work covered under the warranty, as follows:

Estimated warranty liability	\$500	
Auto parts inventory		\$500
To record cost of warranty repairs.		

The above reduces the liability associated with this sale from \$1,200 to \$700. Additional warranty work may or may not be required for this sale, but, over time, management expertise should improve and estimated warranty expenses, booked at

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the time of sale, should be very, very close to the actual warranty work required over the warranty period.

Contingent Liabilities

A contingency is an outcome that is dependent on some event. A contingent liability is an obligation that is dependent on a future outcome arising from a past transaction or event. The future outcome is uncertain. Lawsuits and litigation related outcomes represent an excellent example where accounting for these contingent liabilities must be considered.

The accounting treatment for a contingent liability is dependent on the likelihood of the outcome, where the firm might have to (1) record the liability, (2) disclose the contingent liability in the notes to the financial statements, or (3) disclose nothing, as follows:

<u>Future event is</u>	<u>Amount is</u>	<u>Action to take</u>
Probable	Estimable	Record liability
	Not Estimable	Disclose in notes
Possible		Disclose in notes
Remote		No disclosure

Conditions for the 3 possible accounting treatments for a contingent liability follow:

- If the future event is (1) probably (likely) and the amount can be reasonably quantified or estimated, record the liability (e.g., warranties, vacation pay and income taxes). Of course, if the amount cannot be reasonably quantified or estimated, you have no measure or amount to record, but can still disclose the contingent liability in the note to the financial statements.
- If the future event is (2) possible (could occur), disclose the contingent liability in the note to the financial statements.
- If the future event is (3) remote (unlikely), do not record the amount or disclose the contingent liability in the note to the financial statements.

Reasonably possible contingent liabilities (see above) require application of the *full-disclosure principle* of accounting. Liabilities and loss contingencies can include environmental damages (e.g., the oil spills caused by British Petroleum or Exxon), tax assessments, insurance losses, and government investigations.



Exxon

Appendix A

Times Interest Earned Ratio

Interest expense is generated from current and non-current portions of notes and bonds payable. The underlying debt and the required, periodic payments of interest represent a risk to the firm. The risk is that of being unable to make an interest payment when due.

Assume, for example, that we have to pay 10% per year, semi-annually, for \$1,000,000 in corporate bonds. Payments of \$50,000 must be made on January 1 and July 1 each and every year, until the bonds are retired. This expense is fixed, while sales and gross profits generated from sales are variable. If sales decline, gross profits decline. At some point, declining sales and related gross profits to decline to a point where the firm is unable to make its fixed interest expense payments.

Because interest payments are fixed and sales and gross profits from sales are variable, the time interest earned ratio has been developed to provide a measure of the risk associated with declining sales. The formula follows:

$$\text{Times interest earned} = \frac{\text{Income before interest expense and income taxes}}{\text{Interest expense}}$$

The following table provides some examples of the impact of variable sales and expenses, in the form of income before interest, on the times interest earned ratio:

	<u>Case 1</u>	<u>Case 2</u>	<u>Case 3</u>
Sales	\$200	\$400	\$600
Expenses (variable)	<u>\$150</u>	<u>\$300</u>	<u>\$450</u>
Income before Interest	\$50	\$100	\$150
Interest expense (fixed)	<u>\$20</u>	<u>\$20</u>	<u>\$20</u>
Net income	<u>\$30</u>	<u>\$80</u>	<u>\$130</u>
Times interest earned	<u>2.5</u>	<u>5.0</u>	<u>7.5</u>

Appendix B

Corporate Income Taxes

Corporations pay income taxes. Like individuals, corporations must pay taxes as the taxable year progresses, also referred to pay-as-you-go or PAYGO. They make these payments in the form of estimated tax payments. Estimated tax payments for corporations are made under what are referred to as *safe harbor* rules. As long as corporations follow these rules and make these minimum estimated tax payments, they are “safe” from penalties for late payment.²

Below is an example of the application of accrual accounting and the matching principle and periodicity assumption, where a firm accrues the amount they anticipate for corporate income taxes and the end of each of the first three months of their calendar year operations, as follows”:

31-January	Income tax expense	\$500	
	Income taxes payable		\$500
To record the accrual of January income taxes.			

28-February	Income tax expense	\$1,500	
	Income taxes payable		\$1,500
To record the accrual of February income taxes.			

31-March	Income tax expense	\$750	
	Income taxes payable		\$750
To record the accrual of March income taxes.			

The firm pays estimated corporate income taxes for the first quarter on the due date of April 15, as follows:

15-April	Income taxes payable	\$2,750	
	Cash		\$2,750
To record the payment of estimated taxes for the first quarter.			

² Individuals with income from sources other than wages or salaries are also required to make estimated tax payments under PAYGO and have comparable *safe harbor* rules to avoid late payment penalties.

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Deferred income tax liabilities or deferred income tax assets can arise when a corporation legitimately uses one accounting method for tax accounting purposes and a different accounting method for financial accounting purposes. The following table is used to illustrate:

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Asset Cost	\$10,000	\$10,000	\$10,000	\$10,000
MACRS Depreciation	<u>33.33%</u>	<u>44.44%</u>	<u>14.81%</u>	<u>7.41%</u>
Tax (MACRS)	\$3,333	\$4,444	\$1,481	\$741
Financial (GAAP)	<u>\$2,500</u>	<u>\$2,500</u>	<u>\$2,500</u>	<u>\$2,500</u>
Depreciation Expense Timing Difference	\$833	\$1,944	-\$1,019	-\$1,759
Tax Rate	<u>40%</u>	<u>40%</u>	<u>40%</u>	<u>40%</u>
Deferred Tax	<u>\$333</u>	<u>\$778</u>	<u>(\$408)</u>	<u>(\$704)</u>
Cumulative Deferred Tax	<u>\$333</u>	<u>\$1,111</u>	<u>\$704</u>	<u>(\$0)</u>

Assume that a firm purchases an asset for \$10,000. For financial accounting purposes, the firm decides to depreciate the asset using straight-line depreciation over 4 years, and further assumes that the salvage value of the asset will be zero at the end of its 4 year life. Under tax law, however, the asset must be depreciated using the Modified Accelerated Cost Recovery System known as MACRS.

The above table summarizes the *timing* differences arising from the use of these different accounting methods, where the depreciation expense under MACRS is \$3,333 for year 1, and the depreciation expense under GAAP is \$2,500 for year 1. The difference in depreciation expense is \$833 higher on the corporation's tax return and results in the deferral of 40% tax on this amount or \$333. An additional deferral of tax in the amount of \$778 occurs in year 2. During year 3 and 4, this condition reverses and the cumulative deferred tax is zero by the end of the 4 year life of the asset.

Notice that the tax is not eliminated through the use of different methods of accounting for the depreciation of this asset. It is only deferred. This deferral must be "booked" to the financial statements so that liabilities are not understated.

Appendix C

Historical U.S. Corporate Income Taxes Rates

A summary of the entire history of U.S. corporate income tax rates follows:

<u>Year</u>	<u>Rate Brackets or Exemptions</u>	<u>Rate(a) (Percent)</u>
1909-1913	\$5,000 exemption	1
1913-1915	No exemption after March 1, 1913	1
1916	None	2
1917	None	6
1918	\$2,000 exemption	12
1919-1921	\$2,000 exemption	10
1922-1924	\$2,000 exemption	13
1925	\$2,000 exemption	13
1926-1927	\$2,000 exemption	14
1928	\$3,000 exemption	12
1929	\$3,000 exemption	11
1930-1931	\$3,000 exemption	12
1932-1935	None	14
1936-1937	First \$2,000	8
	Over \$40,000	15
1938-1939	First \$25,000	12.5-16
	Over \$25,000	19 (b)
1940	First \$25,000	14.85-18.7
	\$25,000 to \$31,964.30	38
	\$31,964.30 to \$38,565.89	37
	Over \$38,565.89	24
1941	First \$25,000	21-25
	\$25,000 to \$38,461.54	44
	Over \$38,461.54	31
1942-1945	First \$25,000	25-29
	\$25,000 to \$50,000	53
	Over \$50,000	40
1946-1949	First \$25,000	21-25
	\$25,000 to \$50,000	53
	Over \$50,000	38

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1950	First \$25,000 (Normal Rate)	23
	Over \$25,000 (Add Surtax of 19%)	42
	Excess Profits Tax	30
1951	First \$25,000 (Normal Rate)	28.75
	Over \$25,000 (Add Surtax of 22%)	50.75
	Excess Profits Tax	30
1952	First \$25,000 (Normal Rate)	30
	Over \$25,000 (Add Surtax of 22%)	52
	Excess Profits Tax	30
1953-1963	First \$25,000 (Normal Rate)	30
	Over \$25,000 (Add Surtax of 22%)	52
1964	First \$25,000 (Normal Rate)	22
	Over \$25,000 (Add Surtax of 28%)	50
1965-1967	First \$25,000 (Normal Rate)	22
	Over \$25,000 (Add Surtax of 26%)	48
1968-1969	First \$25,000 (Normal Rate)	22
	Over \$25,000 (Add Surtax of 26%)	48
	With 10% Surcharge	
	First \$25,000 (Normal Rate)	24.20
1970	Over \$25,000 (Add Surtax of 26%)	52.80
	First \$25,000 (Normal Rate)	22
	Over \$25,000 (Add Surtax of 26%)	48
	With 2.5% Surcharge (c)	
1971-1974	First \$25,000 (Normal Rate)	22.55
	Over \$25,000 (Add Surtax of 26%)	49.20
	First \$25,000 (Normal Rate)	22
	Over \$25,000 (Add Surtax of 26%)	48
1975-1978	First \$25,000 (Graduated Normal Rate)	20
	Next \$25,000 (Graduated Normal Rate)	22
	Over \$50,000 (Add Surtax of 26%)	48
1979-1981 (d)	First \$25,000	17
	\$25,000 to \$50,000	20
	\$50,000 to \$75,000	30
	\$75,000 to \$100,000	40
	Over \$100,000	46
1982	First \$25,000	16
	\$25,000 to \$50,000	19
	\$50,000 to \$75,000	30
	\$75,000 to \$100,000	40
	Over \$100,000	46
1983-1984	First \$25,000	15
	\$25,000 to \$50,000	18
	\$50,000 to \$75,000	30
	\$75,000 to \$100,000	40
	Over \$100,000	46
1985-1986	First \$25,000	15
	\$25,000 to \$50,000	18

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	\$50,000 to \$75,000	30
	\$75,000 to \$100,000	40
	\$100,000 to \$1,000,000	46
	\$1,000,000 to \$1,405,000 (e)	51
	Over \$1,405,000	46
1987(f)-1993	First \$50,000	15
	\$50,000 to \$75,000	25
	\$75,000 to \$100,000	34
	\$100,000 to \$335,000 (g)	39
	Over \$335,000	34
1994-	First \$50,000	15
	\$50,000 to \$75,000	25
	\$75,000 to \$100,000	34
	\$100,000 to \$335,000 (g)	39
	\$335,000 to \$10,000,000	34
	\$10,000,000 to \$15,000,000	35
	\$15,000,000 to \$18,333,333 (h)	38
	Over \$18,333,333	35

(a) In addition to the rates shown, certain types of 'excess profits' levies were in effect in 1917-1921 and 1933-1945.

(b) Less adjustments: 14.025% of dividends received and 2.5% of dividends paid.

(c) The Tax Reform Act of 1969 extended the Surcharge at a 5 percent rate from January 1, 1970 through June 1, 1970. On an annualized basis, the Surcharge would be 2.5 percent.

(d) The Revenue Act of 1978 repealed the corporate normal tax and surtax and in their place imposed a graduated rate structure with five brackets.

(e) The Deficit Reduction Act of 1984 placed an additional 5 percent to the tax rate in order to phase out the benefit of the lower graduated rates for corporations with taxable income between \$1,000,000 and 1,405,000. Corporations with taxable income above \$1,405,000, in effect, pay a flat marginal rate of 46 percent.

(f) Rates shown effective for tax years beginning on or after July 1, 1987. Taxable income before July 1, 1987 was subject to a two tax rate schedule or a blended tax rate.

(g) An additional 5 percent tax, not exceeding \$11,750, is imposed on taxable income between \$100,000 and \$335,000 in order to phase out the benefits of the lower graduated rates.

(h) An additional 3 percent tax, not exceeding \$100,000, is imposed on taxable income between \$15,000,000 and \$18,333,333 in order to phase out the benefits of the lower graduated rates.

Source: Treasury Department; Commerce Clearing House (CCH); Tax Foundation