

Accounting Primer

Understanding Financial Statements

Business & Finance and Audit & Ethics Committees
Workshop
November 23, 2010

Agenda

- Overview
- The Accounting Equation
- Double Entry Accounting
- Concepts and Principles (rules of the road)
- The Balance Sheet
- The Income Statement
- The Cash Flow Statement
- Cash vs. Accrual
- Trial Balance

Overview

- Financial Statements are necessary sources of information about companies for a wide variety of users
- Users of financial statements do not need to know everything about accounting to use the information in the basic financial statements
- However, to effectively use financial statement information, it is helpful to know a few simple concepts and to be familiar with some of the fundamental characteristics of basic financial statements

The Accounting Equation

- The accounting equation derives from assets and claims on assets
 - Assets – what the District owns, such as buildings, inventory, equipment, investments
 - Liabilities – what the District owes, such as notes payable, trade accounts payable and bonds
 - Net assets (equity) – assets minus liabilities (includes net income)

The Accounting Equation

Assets:	Claims on Assets:
What the District owns	Liabilities: What the District owes
	Net assets (equity): What the District owns minus what it owes (including net income)

- The basic equation
 - $\text{Assets} = \text{Liabilities} + \text{Net Assets (equity)}$

Double Entry Accounting

- Debits = credits
 - For every transaction there are two components that make up the entry – a debit and a credit
- Debits increase assets or decrease claims on assets or increase expense
- Credits increase claims on assets or decrease assets or increase revenues

Double Entry Accounting

- General ledger is collection of all accounts including assets, liabilities, revenues and expenses
- Trial balance is a listing of balances of the general ledger accounts in order of assets, liabilities, net assets (equity), revenue and expense accounts

Concepts and Principles

“Rules of the Road”

1. Going-concern – the business will continue to operate
2. Time-period – divides business into equal periods of time, such as month, quarter or year

Concepts and Principles (continued)

“Rules of the Road”

3. Cost principle – in most cases assets are carried on the financial statements at cost, what you paid for them
4. Matching principle – if earnings and expenses are to be compared in a time-period, they need to be recorded when one benefits the other
5. Consistency principle – methods and procedures need to be kept the same over time allowing for better comparison of data

The Balance Sheet

- Typical balance sheet displays assets on the left side of the page and liabilities and net assets on the right side

Balance	Sheet
Assets =	Liabilities + Net assets (equity)

The Balance Sheet

- Assets are normally broken into two main categories: current and noncurrent
 - Current – usually anything that can be converted into cash within one year
 - Noncurrent – more permanent items like buildings and items that will not be converted to cash within one year
- Liabilities are similarly divided
 - Current – amounts owed within one year
 - Noncurrent – amounts owed beyond one year

The Balance Sheet

- Assume a District is started with \$100,000 of tax assessments

		Balance	Sheet	
CURRENT ASSETS			NET ASSETS	
Taxes receivable	\$100,000		Net income	\$100,000

The Balance Sheet

- The District collects the taxes

	Balance	Sheet
CURRENT ASSETS		NET ASSETS
Cash	\$100,000	Net income \$100,000
Taxes receivable	-0-	

The Balance Sheet


- Assume the District purchases \$50,000 of water supply (inventory) and pays \$25,000 in cash with a promise to pay the other \$25,000 in 30 days

Balance		Sheet	
CURRENT ASSETS		CURRENT LIABILITIES	
Cash	\$ 75,000	Accounts payable	\$ 25,000
Inventory	<u>50,000</u>	NET ASSETS	
	\$125,000	Net income	<u>100,000</u>
			\$125,000

The Balance Sheet

- Assume the District purchases \$50,000 of water supply (inventory) and pays \$25,000 in cash with a promise to pay the other \$25,000 in 30 days


	Balance	Sheet
CURRENT ASSETS		CURRENT LIABILITIES
Cash	\$ 75,000	Accounts payable \$ 25,000
Inventory	<u>50,000</u>	NET ASSETS
	\$125,000	Net income <u>100,000</u>
		\$125,000



The Balance Sheet

- The balance sheet is in balance

Balance		Sheet	
CURRENT ASSETS		CURRENT LIABILITIES	
Cash	\$ 75,000	Accounts payable	\$ 25,000
Inventory	<u>50,000</u>	NET ASSETS	
		Net income	<u>100,000</u>
	\$125,000		\$125,000



The Balance Sheet

- Now suppose the District buys a building for \$100,000 putting \$25,000 down and issuing \$75,000 in bonds

Balance		Sheet	
CURRENT ASSETS		CURRENT LIABILITIES	
Cash	\$ 50,000	Accounts payable	\$ 25,000
Inventory	<u>50,000</u>		
TOTAL CURRENT ASSETS	100,000	NONCURRENT LIABILITIES	
		Long-term debt	75,000
NONCURRENT ASSETS		NET ASSETS	
Building	<u>100,000</u>	Net income	<u>100,000</u>
	\$200,000		\$200,000

The Balance Sheet

- Now suppose the District buys a building for \$100,000 putting \$25,000 down and issuing \$75,000 in bonds

Balance		Sheet	
CURRENT ASSETS		CURRENT LIABILITIES	
Cash	\$ 50,000	Accounts payable	\$ 25,000
Inventory	<u>50,000</u>	NONCURRENT LIABILITIES	
TOTAL CURRENT ASSETS	100,000	Long-term debt	75,000
NONCURRENT ASSETS		NET ASSETS	
Building	<u>100,000</u>	Net income	<u>100,000</u>
	\$200,000		\$200,000

The Balance Sheet

- And the balance sheet is in balance

		Balance	Sheet		
CURRENT ASSETS			CURRENT LIABILITIES		
Cash	\$ 50,000		Accounts payable	\$ 25,000	
Inventory	<u>50,000</u>				
TOTAL CURRENT ASSETS	100,000		NONCURRENT LIABILITIES		
			Long-term debt	75,000	
NONCURRENT ASSETS			NET ASSETS		
Building	<u>100,000</u>		Net income	<u>100,000</u>	
	\$200,000	←		→	\$200,000

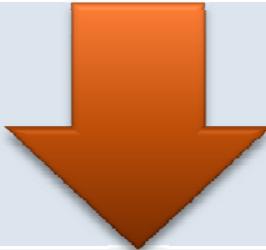
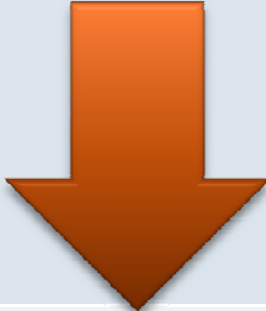
The Balance Sheet

- Valuing balance sheet items
 - Generally valued at cost, what you paid for it
 - Exceptions
 - Investments are valued at fair market value
 - Derivatives (interest rate swaps) are valued at fair market value

The Income Statement

- The income statement shows the District's revenues and expenses for some financial period
- Where the balance sheet may be thought of in terms of 'left-right' orientation, the income statement would be thought of in 'top-down' terms

The Income Statement

	For the 12 Months Ending	June 30, 20X1
Income:		
Water sales		
Property taxes		
	(a)	<u>\$ XXXXXXX</u>
Expenses:		
Cost of water		
Administrative expenses		
Depreciation		
Interest expense		
	(b)	<u>\$ XXXXXXX</u>
Net income	(a)–(b)	\$ XXXXXXX

Illustrative accounting entries to
record the revenues and expenses
for the fiscal year

We saw earlier that the District levied taxes to start operations. That entry would look like this . . .

<i>Transaction</i>	<i>Balance</i>	<i>Sheet</i>	<i>Income</i>	<i>Stmt</i>
	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>
1. Tax levy for fiscal year				
Taxes receivable	\$100,000			
Property tax revenue				\$100,000

Assume the following additional activity for the fiscal year . . .

<i>Transaction</i>	<i>Balance</i>	<i>Sheet</i>	<i>Income</i>	<i>Stmt</i>
	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>
2. Sold water inventory to member agencies				
Accts Receivable – water sales	\$100,000			
Water sales revenue				\$100,000
3. Record cost of water sold				
Cost of water sold			\$50,000	
Inventory		\$50,000		
4. Paid vendor balance for water purchases				
Accounts payable	\$25,000			
Cash		\$25,000		

Assume the following additional activity for the fiscal year . . .

<i>Transaction</i>	<i>Balance</i>	<i>Sheet</i>	<i>Income</i>	<i>Stmt</i>
	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>
5. Record administrative expenses of \$30,000, not yet paid				
Administrative expense			\$30,000	
Accounts payable		\$30,000		
6. Paid interest on long-term debt (\$75,000 at 5%)				
Interest expense			\$3,750	
Cash		\$3,750		
7. Recognized depreciation on building (\$100,000 divided by 20 year life)				
Depreciation expense			\$5,000	
Accumulated depreciation		\$5,000		

The Income Statement

For the 12 Months Ending	June 30, 20X1
Income:	
Water sales	\$ 100,000
Property taxes	<u>100,000</u>
	<u>200,000</u>
Expenses:	
Cost of water	50,000
Administrative expenses	30,000
Depreciation	5,000
Interest expense	<u>3,750</u>
	<u>88,750</u>
Net income	\$111,250

And The Balance Sheet At June 30, 20x1

		Balance	Sheet
CURRENT ASSETS			CURRENT LIABILITIES
Cash	\$ 21,250		Accounts payable
Inventory	-0-		\$ 30,000
A/R – Water	<u>100,000</u>		NONCURRENT LIABILITIES
TOTAL CURRENT ASSETS	121,250		Long-term debt
			75,000
NONCURRENT ASSETS			NET ASSETS
Building	100,000		Net Income
Accumulated depr	<u>(5,000)</u>		<u>111,250</u>
Plant, net	95,000		
	\$216,250		\$216,250

The Cash Flow Statement

For the 12 months ending June 30, 20x1		
Cash flows from operating activities:		
Cash received from tax levies		\$ 100,000
Cash paid for inventory		(50,000)
Net cash provided by operating activities		50,000
Cash flow from capital and related financing activities:		
Proceeds from long-term debt		75,000
Purchase of building		(100,000)
Interest paid on long-term debt		(3,750)
Net cash used in capital and related financing activities		(28,750)
Net increase in cash		21,250
Cash, beginning of year		-0-
Cash, end of year		\$ 21,250

Ties to cash on
balance sheet

Cash vs. Accrual

	Accrual	Cash
Income:		
Water sales	\$ 100,000	\$ -0-
Property taxes	<u>100,000</u>	<u>100,000</u>
	<u>200,000</u>	<u>100,000</u>
Expenses:		
Cost of water	50,000	50,000
Administrative expenses	30,000	-0-
Depreciation	5,000	-0-
Interest expense	3,750	3,750
Down payment on building	<u>-0-</u>	<u>25,000</u>
	<u>88,750</u>	<u>78,750</u>
Net income	\$111,250	\$ 21,250

Trial Balance

Acct#		Debit	Credit
100	Cash	\$ 21,250	
101	Inventory	-0-	
102	A/R – water	100,000	
103	Building	100,000	
104	Accumulated depreciation		\$ 5,000
200	Accounts payable		30,000
201	Long-term debt		75,000
300	Water sales		100,000
301	Taxes levied		100,000
400	Cost of water	50,000	
401	Administrative expenses	30,000	
402	Depreciation expense	5,000	
403	Interest expense	3,750	
		\$ 310,000	\$ 310,000

Assets

Liabilities

Revenues

Expenses

Debits = Credits