Balance Sheet: Investments and Financing

15.511 Corporate Accounting

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Professor SP Kothari

Sloan School of Management

Massachusetts Institute of Technology

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Questions from last class

- Do private companies file with the SEC?
  - Only if they have pubic debt outstanding.

Financial Statements – the Annual Report

- Management Discussion
- Auditor’s Report
- Consolidated Balance Sheet
- Consolidated Net Income
- Consolidated Statement of Stockholders Equity
- Consolidated Cash Flow Statements
- Notes to Accounts

Balance Sheet: Assets

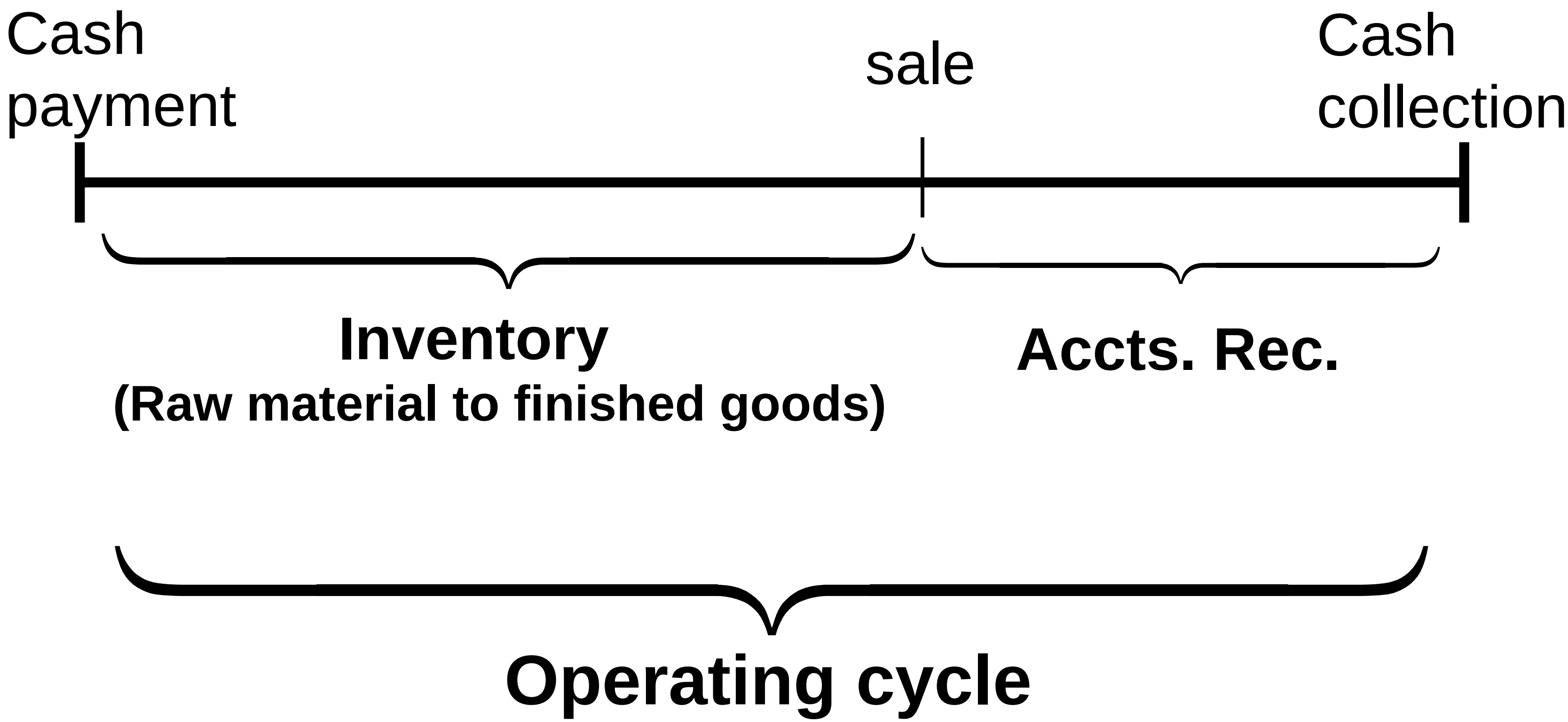
- **Assets**
  - Probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events.
  - The specific types of assets a firm owns depends on the nature of its business -- manufacturing (e.g., General Motors) vs. merchandising (e.g., K mart) vs. financial (e.g., Citicorp) vs. service (e.g., H & R Block) business.

Balance Sheet: Assets

- **Current assets**
  - Cash and other assets that are reasonably expected to be realized in cash or consumed during the normal operating cycle of the business or within one year, **whichever is longer**.
    - Cash and cash equivalents
    - Short-term investments -- at market value -- We will discuss this in detail later.
    - Accounts receivable -- Net realizable value
    - Inventory -- Lower of Historical Cost or Market Value (current replacement cost)
    - Prepaid expenses

The Operating Cycle

- Definition: an operating cycle is defined as the elapsed time between the start of production and the eventual receipt cash from customers from the sale of the product



Balance Sheet: Assets

- **Long-Term Investments**
  - Investments intended to be held for a period of time usually extending beyond one year.
  - Debt and equity securities such as stocks, bonds, and long-term notes receivable.
  - Tangible assets not currently used in operations, e.g., land held for investment purposes.

Balance Sheet: Assets

- **Property, Plant, and Equipment**
  - Assets of a durable nature that are to be used in the production or sale of goods, or rendering of services, rather than being held for sale.
    - Machinery, Factory Building, etc.
  - Carried at Cost (-) Accumulated Depreciation
  - Land on which the company conducts its operations is carried on the balance sheet at the original cost – no depreciation.
    - Distinguish from land held for investment purposes.

Balance Sheet: Assets

- **Intangible Assets**
  - Non-current, non-physical assets of a business, the possession of which provides uncertain future benefits to the owner
    - E.g., goodwill, trademarks, patents, copyrights, etc.
- Is accounts receivable an intangible asset?
  - Not for accounting purposes
- Intangible assets are carried on the balance sheet at cost (-) accumulated **amortization**.
- Cost = Whatever was **paid** to acquire them.
- Internally generated intangible assets are not shown as assets

Balance Sheet: Liabilities

- **Liabilities**
  - **Probable future economic sacrifices** arising from **present obligations** of a particular entity **to transfer assets or provide services** to other entities **in the future** as a **result of past transactions or events**.
- **Current Liabilities**
  - Obligations that are expected to be paid (or services expected to be performed) with the use of assets that are listed in the current section of the balance sheet.

Balance Sheet: Liabilities

- Examples of current liabilities
  - accounts payable, wages payable, interest payable, income taxes payable, deferred revenues.
- Current portion of long-term debts are classified as current liabilities.
- However, debt expected to be refinanced through another long-term debt are treated as long-term liabilities.
  - What is the intuition here?

Balance Sheet: Liabilities

- **Long-Term Liabilities**
  - Obligations usually expected to require payment over a period of time beyond one year.
  - Usually financing obligations, e.g., arising from issuance of bonds, long-term notes, and mortgages.
  - The maturity date, the rate of interest, and any security pledged to support the borrowing agreement should be clearly shown.

Balance Sheet: Owners’ Equity

- Stockholders' Equity
  - The residual interest in the assets that remain after deducting the liabilities.
- Contributed Capital
  - A measure of the capital contributed to the company by its owners.
  - Contribution can be through cash, noncash assets, or valuable services.
- Different classes of capital: Common stock and Preferred stock
- Retained earnings

Financial Statements: Retained Earnings & Shareholders' Equity

- Retained earnings
  - A measure of undistributed profits of a business
  - Do not include capital contributed by owners
- Retained earnings =

  Cumulative sum of profits earned from the inception of business –

  Cumulative sum of all "dividends" distributed to the owners from the inception of business
- How does retained earnings change over a period of time (e.g., a year)
  - Beginning balance in retained earnings
  - Add Net income earned during the period
  - Subtract Dividends distributed during the period
  - Ending balance in retained earnings

The Mechanics of Financial Accounting

Fundamental Accounting Equation

Assets = Liabilities + Owners' Equity

Contributed Capital

Retained Earnings

What type of account?

Identify assets, liabilities, or equity

- Equipment
- Retained Earnings
- Patent
- Common Stock
- Dividend Payable
- Accumulated depreciation
- Prepaid Expense

What type of account?

Identify assets, liabilities, or equity

- Supplies Inventory
- Accounts Receivable
- Land
- Goodwill developed by firm
- Unsettled damage suit
- Factory
- Increase in value of land
- Employee payroll taxes payable

Should we recognize the asset?

Assets arise from transactions and events

- A firm issues a $12m check to an insurance company for liability insurance over the next year.
- A firm issues a check for $500K as a deposit on a custom-built machine.
- A firm buys stock in another firm for $325K
- A firm acquires chemicals to be used as raw materials for $800K.

Should we recognize the asset?

Assets arise from transactions and events

- A well-known scientist is hired to manage the R&D function for 480K a year. Employment starts next month.
- The firm receives an order for $15K in products.
- The firm writes a check for $1M to obtain an option to purchase a tract of land.
- A firm receives notice from a supplier that it has shipped raw materials of $200K. The firm has title to the goods while in transit.
- The firm purchases a patent from its creator for $1.2M

Should we recognize the liability?

Liabilities arise from transactions and events

- The firm owes its attorneys $50K in legal expenses.
- The firm provides warranties on its products.
- The firm borrows $60K from the bank for a 90-day period.

Accounting Transactions

- What business transactions are recorded in the financial accounting system?
  - Exchange of assets and liabilities with other entities
  - As opposed to “executory” transactions
    - Supplier: I will supply 5,000 units six months from now.
    - Customer: I will pay when I receive the goods
    - Exchange of promises
- How do transactions affect the accounting equation?
  - The accounting identity is always maintained

Emily’s Bakery

(1) Emily contributes $10,000 in cash

- Assets = Liabilities + Owners’ Equity
- Cash Contributed Capital
- +$10,000 +$10,000

Transactions and the Accounting Equation

Cash	+	A/R	+	Equip.	=	L/P	+	C. Cap.	+	R/E
+10,000								+10,000		

(2) The **company** borrows $3,000 from a bank

- Assets = Liabilities + Owners' Equity
- Cash Loans Payable
- +$3,000 +$3,000

Transactions and the Accounting Equation

Cash	+	A/R	+	Equip.	=	L/P	+	C. Cap.	+	R/E
+10,000								+10,000		
+ 3,000						+ 3,000				

(3) Company purchases equipment for $5,000 cash

- Assets = L + OE
- Cash Equipment
- -$5,000 +$5,000

Transactions and the Accounting Equation

Cash	+	A/R	+	Equip.	=	L/P	+	C. Cap.	+	R/E
+10,000								+10,000		
+ 3,000						+ 3,000				
- 5,000				+ 5,000						

(4) Company performs service for $12,000. The customer pays $8,000 in cash and promises to pay the balance at a later date.

- Assets = L + Owners' Equity
- Cash Receivables Retained Earnings
- +$8,000 +4,000 +$12,000

Transactions and the Accounting Equation

Cash +	A/R +	Equip. =	L/P +	C. Cap.+	R/E
+10,000				+10,000	
+ 3,000			+ 3,000		
- 5,000		+ 5,000			
+ 8,000	+ 4,000				+12,000

(5) Company pays $9,000 for expenses (wages, interest, and maintenance)

- Assets = Liabilities + Owners' Equity
- Cash Retained Earnings
- -$9,000 -$9,000

Transactions and the Accounting Equation

Cash +	A/R +	Equip. =	L/P +	C. Cap.+	R/E
+10,000				+10,000	
+ 3,000			+ 3,000		
- 5,000		+ 5,000			
+ 8,000	+ 4,000				+12,000
- 9,000					- 9,000

(6) Company pays dividend of $1,000

- Assets = Liabilities + Owners' Equity
- Cash Retained Earnings
- -$1,000 -$1,000

Transactions and the Accounting Equation

Cash	+	A/R	+	Equip.	=	L/P	+	C. Cap.	+	R/E
+10,000								+10,000		
+ 3,000						+ 3,000				
- 5,000				+ 5,000						
+ 8,000		+ 4,000								+12,000
- 9,000										- 9,000
- 1,000										- 1,000
6,000		***4,000***		***5,000***		***3,000***		***10,000***	**+**	***2,000***

Balance Sheet as at December 31, 1997

Assets	Amount	Liabilities and Owners' Equity	Amount
Cash	6,000	Loans Payable	3,000
Receivables	4,000	Contributed Capital	10,000
Equipment	5,000	Retained Earnings	2,000
Total Assests	**$15,000**	**Total Liabilities and Owners' Equity**	**$15,000**

Transactions and Accounting Equation

Cash +	A/R +	Equip. =	L/P +	C. Cap. +	R/E
+10,000				+10,000	
+ 3,000			+ 3,000		
- 5,000		+ 5,000			
+ 8,000	+ 4,000				***+12,000***
- 9,000					***- 9,000***
- 1,000					***- 1,000***
6,000	4,000	5,000	3,000	10,000	+ 2,000

Income Statement
For the year ended December 31, 1997

Revenues:	Fees earned for service	$12,000
Expenses:	Wages, interest, maintenance	$ 9,000
Net income		$ 3,000

Transactions and Accounting Equation

Cash	+ A/R	+ Equip.	= L/P	+ C. Cap.	+ R/E
+10,000				+10,000	
+ 3,000			+ 3,000		
- 5,000		+ 5,000			
+ 8,000	+ 4,000				+12,000
- 9,000					- 9,000
- 1,000					- 1,000
6,000	4,000	5,000	3,000	10,000	+ 2,000

Statement of Cash Flows
For the year ended December 31, 1997
[To be revisited later in the course]

Operating activities:		
Sale of a service (4)	8,000	
Payments for expenses (5)	(9,000)	
Net cash from operating activities		(1,000)
Investing activities:		
Purchase of equipment (3)	(5,000)	
Net cash from investing activities		(5,000)
Financing activities:		
Borrowings (2)	3,000	
Owner contributions (1)	10,000	
Payment of dividends (6)	(1,000)	12,000
Increase in cash balance		6,000
Cash balance at the beginning of the year		0
Cash balance at the end of the year		6,000

Statement of Retained Earnings
For the year ended December 31, 1997

Beginning retained earnings balance	**0**
Plus: Net income	**3,000**
Less: Dividend to stockholder	**1,000**
Ending retained earnings balance	**$ 2,000**

Summary

- Balance sheet
  - Listing of
    - Resources owned by a firm (assets or investments)
    - Financing of the assets through obligations to external parties (liabilities)
    - Financing of the investments through residual claimants (shareholders' equity)
  - Preparing a balance sheet (and other financial statements) using transaction history

Home work problem: Initial Balance Sheet

Starting a Company

- (1) Issues 50,000 shares of $10 par value common stock at par value for cash.
- (2) Acquires land and building costing $225,000 with the payment of $50,000 cash and the assumption of a 20-year, 8-percent mortgage for the balance.
- (3) Purchases a used crane for $13,200 cash
- (4) Acquires raw materials costing $8,600 on account.

Initial Balance Sheet

Starting a Company

- (5) Returns defective raw materials purchased in (4) and costing $900 to the supplier. The account has not yet been paid.
- (6) Pays the supplier in (4) and (5) the amount due, less a 2-percent discount for prompt payment. The firm treats cash discount as a reduction in the acquisition cost of raw materials.
- (7) Obtains a fire insurance policy providing $500,000 coverage beginning next month. It pays the 1-year premium of $4,950.

Initial Balance Sheet

Starting a Company

- (8) Issues a check for $1,800 for 3 months rent in advance for office space.
- (9) Purchases a patent on a machine process for $90,000 cash.
- (10) Purchases office equipment for $2,700, making a down payment of $250 and agreeing to pay the balance in 30 days.
- (11) Pays $825 to Express Trucking Company for delivering the equipment purchased in (3).

Recording of transactions

Cash + OCA + PP&E + ONCA = CL + NCL + SE

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(10)

(11)