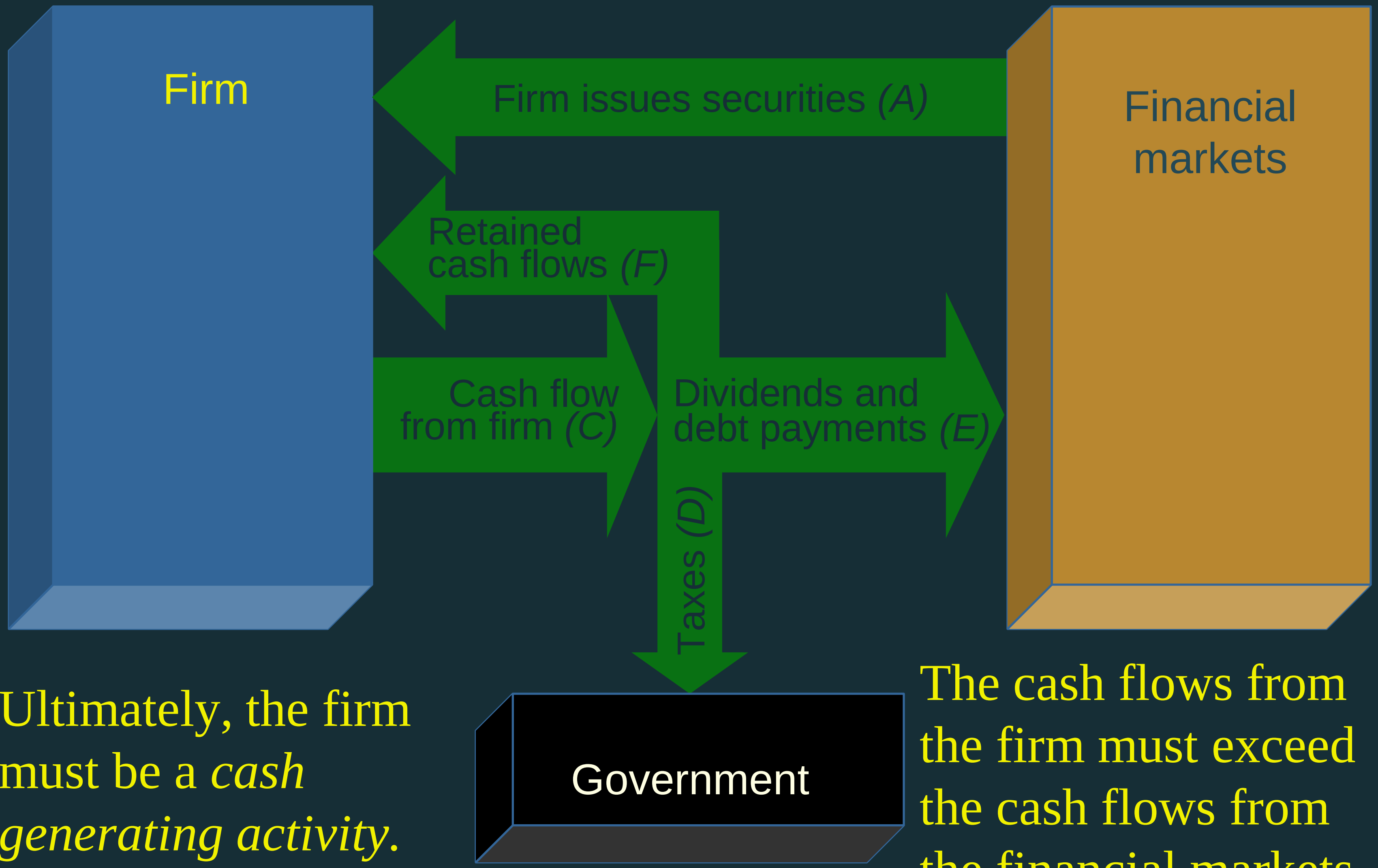
Week 2

1.3 The Importance of Cash Flow



Ultimately, the firm must be a *cash generating activity.*

The cash flows from the firm must exceed the cash flows from the financial markets.

1.4 The Goal of Financial Management

- What is the correct goal?
  - Maximize profit?
  - Minimize costs?
  - Maximize market share?
  - **Maximize shareholder wealth?**

1.5 The Agency Problem

- Agency relationship
  - Principal hires an agent to represent his/her interest
  - Stockholders (principals) hire managers (agents) to run the company
- Agency problem
  - Conflict of interest between principal and agent

Managerial Goals

- Managerial goals may be different from shareholder goals
  - Expensive perquisites
  - Survival
  - Independence
- Increased growth and size are not necessarily equivalent to increased shareholder wealth

Managing Managers

- Managerial compensation
  - Incentives can be used to align management and stockholder interests
  - The incentives need to be structured carefully to make sure that they achieve their intended goal
- Corporate control
  - The threat of a takeover may result in better management

2.1 The Balance Sheet

- An accountant's snapshot of the firm's accounting value at a specific point in time
- The Balance Sheet Identity is:

Assets ≡ Liabilities + Stockholder's Equity

U.S. Composite Corporation Balance Sheet

	2010	2009
Current assets:		
Cash and equivalents	$140	$107
Accounts receivable	294	270
Inventories	269	280
Other	58	50
Total current assets	$761	$707
Fixed assets:		
Property, plant, and equipment	$1,423	$1,274
Less accumulated depreciation	(550)	(460)
Net property, plant, and equipment	873	814
Intangible assets and other	245	221
Total fixed assets	$1,118	$1,035
Total assets	$1,879	$1,742

The assets are listed in order by the length of time it would normally take a firm with ongoing operations to convert them into cash.

Clearly, cash is much more liquid than property, plant, and equipment.

Balance Sheet Analysis

- When analyzing a balance sheet, the Finance Manager should be aware of three concerns:
  1. Liquidity
  2. Debt versus equity
  3. Value versus cost
  4. Balance Sheet does NOT include some of the most valuable things that a company has

Liquidity

- Refers to the ease and quickness with which assets can be converted to cash—without a significant loss in value
- Current assets are the most liquid.
- Some fixed assets are intangible.
- The more liquid a firm's assets, the less likely the firm is to experience problems meeting short-term obligations.
- Liquid assets frequently have lower rates of return than fixed assets.

Debt versus Equity

- Creditors generally receive the first claim on the firm's cash flow.
- Shareholder's equity is the residual difference between assets and liabilities.

Value versus Cost

- Under Generally Accepted Accounting Principles (GAAP), audited financial statements of firms in the U.S. carry assets at cost.
- Market value is the price at which the assets, liabilities, and equity could actually be bought or sold, which is a completely different concept from historical cost.

2.2 The Income Statement

- Measures financial performance over a specific period of time
- The accounting definition of income is:

  $$\text{Revenue} - \text{Expenses} \equiv \text{Income}$$

U.S.C.C. Income Statement

The operations section of the income statement reports the firm's revenues and expenses from principal operations.

Total operating revenues	$2,262
Cost of goods sold	1,655
Selling, general, and administrative expenses	327
Depreciation	90
Operating income	$190
Other income	29
Earnings before interest and taxes	$219
Interest expense	49
Pretax income	$170
Taxes	84
Current: $71	
Deferred: $13	
Net income	$86
Addition to retained earnings	$43
Dividends:	$43

U.S.C.C. Income Statement

The non-operating section of the income statement includes all financing costs, such as interest expense.

Total operating revenues	$2,262
Cost of goods sold	1,655
Selling, general, and administrative expenses	327
Depreciation	90
Operating income	$190
Other income	29
Earnings before interest and taxes	$219
Interest expense	49
Pretax income	$170
Taxes	84
Current: $71	
Deferred: $13	
Net income	$86
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U.S.C.C. Income Statement

Usually a separate section reports the amount of taxes levied on income.

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Cost of goods sold	1,655
Selling, general, and administrative expenses	327
Depreciation	90
Operating income	$190
Other income	29
Earnings before interest and taxes	$219
Interest expense	49
Pretax income	$170
Taxes	84
Current: $71	
Deferred: $13	
Net income	$86
Addition to retained earnings:	$43
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U.S.C.C. Income Statement

Net income is the "bottom line."

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Selling, general, and administrative expenses	327
Depreciation	90
Operating income	$190
Other income	29
Earnings before interest and taxes	$219
Interest expense	49
Pretax income	$170
Taxes	84
Current: $71	
Deferred: $13	
Net income	$86
Retained earnings:	$43
Dividends:	$43

Income Statement Analysis

- There are three things to keep in mind when analyzing an income statement:
  1. Generally Accepted Accounting Principles (GAAP)
  2. Non-Cash Items
  3. Time and Costs

GAAP

- The matching principle of GAAP dictates that revenues be matched with expenses.
- Thus, income is reported when it is earned, even though no cash flow may have occurred.

Non-Cash Items

- Depreciation is the most apparent. No firm ever writes a check for “depreciation.”
- Another non-cash item is deferred taxes, which does not represent a cash flow.
- Thus, net income is not cash.

Time and Costs

- In the short-run, certain equipment, resources, and commitments of the firm are fixed, but the firm can vary such inputs as labor and raw materials.
- In the long-run, all inputs of production (and hence costs) are variable.
- Financial accountants do not distinguish between variable costs and fixed costs. Instead, accounting costs usually fit into a classification that distinguishes product costs from period costs.

2.3 Taxes

- The one thing we can rely on with taxes is that they are always changing
- Marginal vs. average tax rates
  - Marginal – the percentage paid on the next dollar earned
  - Average – the tax bill / taxable income
- Other taxes

US Corporate Tax Rates

Taxable Income ($)	Tax Rate[27]
0 to 50,000	15%
50,000 to 75,000	$7,500 + 25% Of the amount over 50,000
75,000 to 100,000	$13,750 + 34% Of the amount over 75,000
100,000 to 335,000	$22,250 + 39% Of the amount over 100,000
335,000 to 10,000,000	$113,900 + 34% Of the amount over 335,000
10,000,000 to 15,000,000	$3,400,000 + 35% Of the amount over 10,000,000
15,000,000 to 18,333,333	$5,150,000 + 38% Of the amount over 15,000,000
18,333,333 and up	35%

Marginal versus Average Rates

- Suppose your firm earns $300,000 in taxable income.
  - What is the firm's tax liability?
  - What is the average tax rate?
  - What is the marginal tax rate?
- If you are considering a project that will increase the firm's taxable income by $1 million, what tax rate should you use in your analysis?

US effective rate is much lower than nominal tax rate.
Global companies have greater access to tax shelters.

2.4 Net Working Capital

- Net Working Capital ≡

  Current Assets – Current Liabilities

- NWC usually grows with the firm

U.S.C.C. Balance Sheet

$252m = $707- $455

	2010	2009
Current assets:		
Cash and equivalents	$140	$107
Accounts receivable	294	270
Inventories	269	280
Other	58	50
Total current assets	$761	$707

	2010	2009
Current Liabilities:		
Accounts payable	$213	$197
Notes payable	50	53
Accrued expenses	223	205
Total current liabilities	$486	$455

$275m = $761m- $486m

Here we see NWC grow to $275 million in 2010 from $252 million in 2009.

$23 million

This increase of $23 million is an investment of the firm.