Guide to Financial Statements – Study Guide

Overview (Topic 1)

Three major financial statements:

- The Income Statement
- The Balance Sheet
- The Cash Flow Statement

Objectives:

- Explain the underlying equation of each statement.
- Understand the structure and purpose of each statement.

Why are they important? (Topic 2)

(Slide 1)

Financial statements provide information about a company's financial health.

- *Managers* use them to strategize and identify areas that require their intervention.
- *Shareholders* use them to ensure their capital is well managed
- *Outside investors* use them to identify opportunities.
- *Lenders and suppliers* use them to assess the creditworthiness of businesses they plan to deal with.
- *The government* uses them for tax-collection and regulation purposes.

(Slide 2)

Understanding financial statements is important when

- Making sound investment decisions
- Dealing with companies
- Managing a department
- Starting your own business
- Managing your personal finances
- Taking a job with a company

(Slide 3)

Financial statements are commonly provided together, as part of a company's annual report.

You will often need to look at all three statements to fully answer a question or make a decision.

Income Statement (Topic 4)

(Slide 1)

The Income Statement:

- Specifies the financial results of a business over a defined period of time - usually a month, a quarter, or a fiscal year.
- States whether a business is making a profit or not.

(Slide 2)

Underlying equation:

Revenues - Expenses = Profit/Loss (Net Income)

(Slide 3)

(SAMPLE INCOME STATEMENT: Page 15)

Sales/Revenue:

- Includes money generated by the company by selling its products or services to customers
- Sometimes referred to as *sales*
- Only includes revenue associated with the company's main operations

(Slide 4)

Expense Categories:

1. Cost of Goods Sold
2. Operating Expenses (including depreciation)
3. Interest Expense
4. Income Tax

(Slide 5)

The income statement – in addition to the balance sheet – follows the accrual accounting system.

Accrual Accounting:

- Revenues are recorded when earned and expenses are recorded when incurred.
- Therefore, earned revenues may include sales on credit for which the company has yet to receive cash and expenses may include bills the company has not yet paid.

(Slide 7)

Cost of Goods Sold:

- Includes all expenses directly related to making and storing a company's goods
- *Examples:* raw materials, warehousing, direct labor costs
- Service companies do not have this section on their income statements, since they don't produce products.

By deducting cost of goods sold from sales/revenue you arrive at **gross profit**.

(Slide 8)

Operating Expenses:

- Include all costs incurred in operating the business that are not directly related to the production and storage of a company's goods.
- *Examples:* administrative salaries, research and development expenses, marketing costs

(Slide 9)

Cost of Goods Sold vs. Operating Expenses:

If an expense can be eliminated without affecting the production and storage of the company's products, then it's an operating expense and not part of the cost of goods sold.

(Slides 11 - 13)

Depreciation:

- Listed with operating expenses on the income statement.
- Instead of including the full price of a fixed (long-term) asset under operating expenses, its cost is spread over the years it will be used and listed under depreciation.
- *The reason:* The asset will benefit the company for several years – not just during the year it was purchased. Without depreciation, a company would be overstating its first-year expenses and understating its expenses over the following years during which the asset is used.

(Slide 14)

By subtracting operating expenses and depreciation from gross profit, you arrive at **operating earnings**. These earnings are also called **earnings before interest and taxes**, or **EBIT** for short.

(Slide 15)

Many companies and investors look at the **ratio of EBIT to revenues** as a measurement of profitability.

$$\frac{\textbf{EBIT}}{\textbf{Sales}} \times 100 = \textbf{\% Revenue that is Operating Earnings}$$

Companies use this number to compare changes in their profitability over time and to compare their profitability to other companies in their industry. If the percentage is smaller than a competitor, it means the company is less profitable; if it is bigger, then the company is more profitable.

(Slide 16)

Interest Expense – interest paid by the company for loans it incurred

Income Tax – tax levied by the government for income

<u>REVENUE – EXPENSES = NET INCOME</u>

Net Profit:
Revenue/Sales > Expenses

Net Loss:
Revenue/Sales < Expenses

(Slide 17)

OVERVIEW:

	Sales/Revenue
–	Cost of Goods Sold
=	Gross Profit
–	Operating Expenses
–	Depreciation
=	Operating Earnings (EBIT)
–	Interest Expense
–	Interest Expense
=	NET INCOME

(Slide 19)

Income Statement:

- *Equation:* **Revenues - Expenses = Profit/Loss**
- Summarizes the financial results of a business over a fixed period of time.
- Tells whether a company is making a profit or not
- Can help spot trends and turnarounds when compared to previous periods

Balance Sheet (Topic 6)

(Slide 1)

The Balance Sheet:

- Gives a snapshot of a company's financial situation at a particular point in time
- Is usually prepared at the end of a month, quarter, or fiscal year.
- Lists the company's different assets and how they have been funded - with the capital of creditors (liabilities), with the capital of the owners (equity), or with both.

(Slide 2)

Underlying equation:

Assets = Liabilities + Owners' Equity

(Slide 3)

Assets – include the value of everything a company uses to conduct business, such as cash, equipment, land, inventories, office equipment, and money owed to the company by customers and clients.

Liabilities – include existing debts a company owes to its creditors and lenders.

Owners' Equity – equals assets minus liabilities and represents the part of the company owned by its owners or shareholders. *(if a company has $4 million in assets and $3 million in liabilities, it has $1 million in owners' equity.)*

(Slide 4)

Example of the balance between assets and liabilities/owners' equity:

If a company buys $2 million worth of inventory with payment due in 60 days, assets increases by $2 million and liabilities also increase by $2 million. Once the company pays for the inventory, assets (cash) and current liabilities will, then, both be reduced by $2 million.
(Slide 6)

(SAMPLE INCOME STATEMENT: Page 16)

Assets are listed on the left side of the balance sheet and are generally organized into two categories:

Current Assets:

- Assets the company plans to convert to cash, sell, or use during the coming year
- *Examples:* cash, accounts receivable, inventory on hand

Fixed Assets

- Assets that the company does not plan to turn into cash within one year or that would take longer than one year to convert
- *Examples:* property, plants, machinery, patents

(Slide 7)

Again, like in the income statement, the company must account for the depreciating value of its assets. **Accumulated depreciation** is deducted from fixed assets.

(Slide 9)

Liabilities and owners' equity are listed on the right side of the balance sheet.

Liabilities are generally organized into two categories:

Current Liabilities:

- Money the company expected to pay within one year
- *Examples:* accounts payable and short-term borrowings

Long-term Liabilities

- Money the company needed to pay back in one or more years
- *Examples:* long-term bank loans, mortgages, bonds

(Slide 11)

Owners' Equity (all assets minus all liabilities) represents the part of the company owned by its shareholders and is generally organized into two categories:

Contributed Capital – capital invested by a company's owners/shareholders

Retained Earnings – earnings reinvested in the business after all dividends were paid

(Slide 14)

OVERVIEW:

Balance Sheet:

- *Equation:* **Assets = Liabilities + Owners' Equity**
- Provides a snapshot of a company's balance between its assets, liabilities and owners' equity at a specific point in time.

Cash Flow Statement (Topic 12)

(Slide 1)

The Cash Flow Statement:

- Records a company's cash inflows and cash outflows over a defined period of time
- Usually derived from the income statement and balance sheet.
- Shows where the company's cash originated, how the company used its cash, and if the company has enough cash to return its loans and continue to operate.

(Slide 2)

Important Difference from Other Two Statements:

- The income statement and balance sheet follow the accrual basis of accounting, where revenues are recorded when earned (whether or not cash was received) and expenses are recorded when incurred (whether or not they have been paid).
- The cash flow statement follows the **cash basis of accounting** where only actual cash inflows and outflows are recorded.

(Slide 4)

(SAMPLE CASH FLOW STATEMENT: Page17)

Three sections of cash flow statement:

1. Operating Cash Flow
2. Investing Cash Flow
3. Financing Cash Flow

Underlying equation:

	Net cash provided or used by operating activities
+	**Net cash provided or used by investing activities**
+	**Net cash provided or used by financing activities**
=	**Total net increase or decrease in cash**
+	**Beginning cash balance**
=	**Ending cash balance**

(Slide 5)

Operating Cash Flow:

- Includes cash generated by and required for the daily operations of a business
- *Inflow Example:* cash received from the sale of products or services
- *Outflow Example:* payments to suppliers, salaries to employees, rents, taxes
- Operating cash inflows minus operating cash outflows equal **net operating cash flow**.

Methods for calculating net operating cash flow:

(1) The Indirect Method (most widely used)
(2) The Direct Method

(Slide 6)

Indirect Method – adding and subtracting non-cash revenues and expenses from net income

Net income must be adjusted for the cash flow statement because, on the income statement, it was calculated under the accrual basis of accounting and, thus, non-cash items such accounts receivable were included in calculating it.

Non-cash items requiring adjustment under the indirect method usually fall into three categories:

1. Depreciation, depletion, and amortization
2. Gains and losses on the sale of fixed assets, such as equipment
3. Changes in current non-cash assets liabilities, such as accounts receivable and accounts payable

(Slide 7)

Depreciation, depletion, and amortization

Example: Depreciation
Depreciation is a non-cash expense deducted to arrive at net income. Therefore, we must add depreciation back to net income to arrive at net operating cash flow.

(Slide 8)

Gains and losses on the sale of fixed assets, such as equipment

Example: Non-cash gain from the sale of equipment
When a company sells a fixed asset, it records the gain or loss from the sale on the income statement under a special category called "other revenues/expenses." If the sale was non-cash (e.g. on credit), then we must now deduct this amount to adjust net income to a cash basis system.

(Slide 10)

Changes in current non-cash assets liabilities

Example 1: Accounts Receivable (A/R)
A/R represents uncollected revenues that are included as revenue on the income statement. Any increase in A/R over the period needs to be deducted from net income on the cash flow statement. Any decrease in A/R over the period needs to be added back to net income on the cash flow statement.

(Slide 12)

Example 2: Accounts Payable (A/P)
A/P represents expenses not yet paid that are included as expenses on the income statement. Any increase in A/P over the period needs to be added back to net income on the cash flow statement. Any decrease in A/P needs to be deducted from net income on the cash flow statement.

(Slide 14)

	Necessary Adjustments
Depreciation	add
Non-cash gains	deduct
Non-cash losses	add
A/R Increase	deduct
A/R Decrease	add
A/P Increase	add
A/P Decrease	deduct

(Slide 16)

Direct Method – adjusting each item on the income statement from an accrual basis to a cash basis.

(Slide 17)

Investing Cash Flow:

- Includes cash used for investing in long-term assets and cash received from the sale of such investments
- *Inflow Examples:* sale of property, debt, or equity
- *Outflow Examples:* purchase of property/equipment, loans made to other entities

(Slide 18)

Financing Cash Flow:

- Includes cash paid to or received from external sources such as lenders, investors, and shareholders
- *Inflow Examples:* include issuance of bonds, issuance of stock, bank loans
- *Outflow Examples:* dividends paid, payment of loans

(Slide 19)

	Net operating cash flow
+	**Net investing cash flow**
+	**Net financing cash flow**
=	**Net Cash Flow**

Net cash flow should equal the difference between the amounts of cash listed on the balance sheets from the beginning and the ending the period.

(Slide 20)

	Net Cash Flow
+	**Beginning cash balance**
=	**Ending cash balance**

(Slide 22)

OVERVIEW:

Cash Flow Statement:

- Tells you how much cash the company has generated and spent over a specific period of time

Finding Financial Statements (Topic 12)

(Slide 1)

All publicly traded companies in the U.S. are required by the SEC to distribute their annual reports to their investors and make them available to the public.

(Slide 2)

Resources for finding financial statements:

1. The SEC website – allows you to search and view the annual reports of all U.S. publicly traded companies through its EDGAR database.

To search for a company's annual report:

1. Go to the SEC home page and click on *Search for Company Filings*.
2. Choose *Companies & Other Filers.*
3. Type the name of the company in which you are interested.
4. Click *Find Companies*.
5. (Type *10-K* to view the most recent annual report.)

(Slide 3)

2. The Company's Website – most publicly traded companies make their reports available online under the *Investor Relations* section of their website.

(Slide 4)

3. Thomson Research - as a student at Baruch you have access to Thomson Research through the library's website.

This database is unique because:

- It includes historical SEC filings not included in EDGAR.
- It allows you to view only the parts of the report in which you are interested.
- It allows you to download the filing as a word document, PDF file, or Excel spreadsheet.

To search this database:

1. Type the name of the company in which you are interested.
2. Choose the type of report you want to view.

Ethics in Accounting (Topic 13)

(Slide 1)

It is the responsibility of corporations to ensure that financial integrity and investor trust are upheld.

(Slide 2)

Enron is an example of what can happen when a company does not meet this responsibility.

- One of the world's leading energy, commodities, and services companies
- America's 7th largest company, employing 21,000 staff in more than 40 countries
- Admitted to overstating company value in financial statements by $1.2 billion
- Accused of concealing debts and not listing them on the company's financial statements

(Slide 3)

- Investors and creditors withdrew from the company.
- The company declared bankruptcy.
- Thousands of employees lost their jobs and retirement accounts.
- Enron stockholders lost billions of dollars.
- New government regulations, such as the Sarbanes-Oxley Act, were passed by the U.S. government.

(Slide 4)

Professional accounting organizations – such as AICPA – require members to follow a code of conduct to maintain the public's confidence in the accounting industry.

(Slide 5)

Through the Robert Zicklin Center for Corporate Integrity, Baruch College is committed to introducing students to the important issue of ethics in financial reporting.

Conclusion (Topic 14)

(Slide 1)

The income statement tells you the bottom line over a specific period of time. Is the company turning out a profit or a loss?

The balance sheet gives you a snapshot of a company's financial situation (its assets, liabilities, and owners' equity) at a particular point in time.

The cash flow statement tells you how much cash the company possesses and its sources and uses of cash.

Sample Income Statement:

Volume Pizza Inc.

Income Statement for the Fiscal Year ending December 31st, 2003

Revenue/Sales	**$1,000,000**
Less: Cost of Goods Sold	**$500,000**
Gross Profit	**$500,000**
Less: Operating Expenses	**$150,000**
Depreciation	**$ 10,000**
Earnings before Interest and Taxes	**$340,000**
Less: Interest Expense	**$140,000**
Earnings before Income Tax	**$200,000**
Less: Income Tax	**$100,000**
Net Income	**$100,000**

Sample Balance Sheet:

Volume Pizza Inc.

Balance Sheet as of Octbober 10th, 2003

Assets	
Assets	
Current Assets	
Cash	$ 600,000
Accounts Receivable	$ 900,000
Inventory	$ 500,000
Total Current Assets	$2,000,000
Fixed Assets	
Property	$2,600,000
Machinery	$3,000,000
Less: Accumulated Depreciation	$ 600,000
Total Fixed Assets	$5,000,000
Total Assets	$7,000,000

Liabilities & Owners' Equity	
Liabilities	
Current Liabilities	
Accounts Payable	$ 200,000
Short-Term Debt	$1,000,000
Total Current Liabilities	$1,200,000
Long-Term Liabilities	
Long-Term Bank Loans	$ 500,000
Mortgages	$1,500,000
Total Long-Term Liabilities	$2,000,000
Total Liabilities	$3,200,000
Owners' Equity	
Contributed Capital	$3,000,000
Retained Earnings	$ 800,000
Total Owners' Equity	$3,800,000
Total Liabilities & Owners' Equity	$7,000,000

Sample Cash Flow Statement:

Volume Pizza Inc.

Cash Flow Statement for the Year Ended December 31, 2003

Operating Cash Flow	
Net Income	$ 100,000
Non-Cash Adjustments	
Depreciation	$ 10,000
Increase in A/R	$ (5,000)
Decrease in A/P	$ (35,000)
Net Cash Provided from Operations	$ 70,000
Investing Cash Flow	
Purchase of Equipment	$ (250,000)
Net Cash Provided from Investing	$ (250,000)
Financing Cash Flow	
Increase in Long-Term Loan	$1,000,000
Payment of Previous Loan	$ (150,000)
Net Cash Provided from Financing	$ 850,000
Total Cash Flow	$ 670,000
Cash at Beginning of Period	$ 525,000
Cash at End of Period	$1,195,000