

# FINANCIAL STATEMENT ANALYSIS

## Lecture 2

### ISSUES IN FINANCIAL ANALYSIS

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#### FINANCIAL STATEMENTS – BASIS OF ANALYSIS

Financial statements reflect business activities. At the end of a period, typically a quarter or a year, financial statements are prepared to report on financing and investing activities at that point in time, and to summarize operating activities for the preceding period. This is the role of financial statements and the object of analysis. The key financial statements include;

1. Income statement/ statement of financial performance/ statement of comprehensive income
2. Balance sheet/ statement of financial position
3. Statement of cash flows
4. Statement of change in equity/ statement of shareholders' equity

#### 1. Income Statement/ Statement of Financial Performance/ Statement of Comprehensive Income

An income statement measures a company's financial performance between balance sheet dates. It is a representation of the operating activities of a company. The income statement provides details of revenues, expenses, gains, and losses of a company for a time period. The bottom line, **earnings** (also called *net income*), indicates the profitability of the company. Earnings reflect the return to equity holders for the period under consideration, while the line items of the statement detail how earnings are determined (Subramanyam, 2014).

An income statement has three main elements as described below:

- **Revenues.** Revenues are the gross receipts earned by the company from selling its goods or services. The revenue section is typically the first part and the simplest in an income statement. Often, there is just a single number that represents all the money a business entity brought in during a specific time period. Occasionally, a business will break down revenue in terms of geographical regions, income from sales and non-sales income etc.

Revenues are also referred as income and according to the international accounting standards, Income is described as increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants. [F 4.25(a)]

- **Expenses.** Expenses consist of expenditure that flows through the income statement. There are many types of expenses and the most common ones include the cost of sales, selling, general, and administrative (SG&A) expenses, Depreciation and amortization expenses and Research & Development (R&D) expenses.

According to the international accounting standards, expenses are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants. [F 4.25(b)]

- **Profits or losses.** In its simplest form, profit is equal to total revenues minus total expenses. When revenues are more than expenses a profit will be realized while if expenses are more than revenue, the business will make a loss. However, there are several commonly used profit subcategories investors should be aware of. Gross profit is calculated as revenues minus cost of sales. It basically shows how much money is left over to pay for operating expenses (and hopefully provide profit to stockholders) after a sale is made. Operating profit is equal to revenues minus the cost of sales and SG&A. This number represents the profit a company made from its actual operations, and excludes certain expenses and revenues that may not be related to its central operations. Net income generally represents the company's profit after all expenses, including financial expenses, have been paid. This number is often called the "bottom line" and is generally the figure people refer to when they use the word "profit" or "earnings" (myinvestingnotes.blogspot, n.d.)

### Simplified format of an Income Statement/ Statement of Financial Performance

#### XYZ Company

#### Statement of financial performance

For The Year Ended December 31, 202X

Sales			xx
Sales returns			<u>(x)</u>
Net sales			x
Opening stock		X	
Purchases	X		
Carriage inwards	x		
Purchases returns	<u>(x)</u>		
Goods Available For Sale		X	
Closing stock		<u>(x)</u>	
Cost Of Goods Sold			<u>(xx)</u>
Gross profit			xx
<b>Other Income</b>			
Discount received			X
Interest received			<u>X</u>

<b>Expenses</b>		x
Wages	X	
Rent	X	
Electricity	X	
Bad debts	X	
General expenses	X	
Depreciation machinery	<u>X</u>	(x)
Net profit		<u>X</u>

The income statement shows the financial results of operations for a period of time. From the income statement, one can determine the level of profit or loss because amounts received from selling goods and services and other items of income are matched against all the costs and expenses incurred in the delivery of these goods and services.

## 2. Balance Sheet/ Statement of Financial Position

The balance sheet presents the financial position of a business as of a specific date. It is a report on the financial resources (assets) available to the business to carry out its economic activities as well as claims (liabilities) against its resources. The difference between assets and liabilities is the owner's equity. This follows the fundamental accounting equation:  $\text{Assets} = \text{Liabilities} + \text{Owner's Equity}$ .

The accounting equation (also called the balance sheet identity) is the basis of the accounting system:  $\text{Assets} = \text{Liabilities} + \text{Equity}$ . The left-hand side of this equation relates to the resources controlled by a company, or assets. These resources are investments that are expected to generate future earnings through operating activities. To engage in operating activities, a company needs financing to fund them. The right-hand side of this equation identifies funding sources.

A balance sheet has three main elements as described below:

- **Asset.** An asset is a resource owned or controlled by an individual, corporation, or government with the expectation that it will generate a positive economic benefit. Common types of assets include current, non-current, physical, intangible, operating, and non-operating assets.

According to the international accounting standards, an asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity. [F 4.4(a)]

- **Liability.** A liability is a financial obligation of a company that results in the company's future sacrifices of economic benefits to other entities or businesses. A

liability can be an alternative to equity as a source of a company's financing. Liabilities are classified into two;

Current liabilities are debts that you have to pay back within the next 12 months. Examples include Accounts payable, i.e. payments you owe your suppliers, Principal and interest on a bank loan that is due within the next year, Salaries and wages payable in the next year, Notes payable that are due within one year, Income taxes payable, Mortgages payable, Payroll taxes etc.

Long-term liabilities are debts that aren't due for more than 12 months. Examples include Principal and interest payments due more than a year from now, Bonds, debentures and long-term loans, Deferred tax liabilities, Lease payments that aren't due for more than a year, Pension obligations, Mortgage, equipment and other capital payments that aren't due for more than a year etc.

According to the international accounting standards, a liability is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits. [F 4.4(b)]

- **Equity.** Equity is the amount of capital invested or owned by the owner of a company. The equity is evaluated by the difference between liabilities and assets recorded on the balance sheet of a company. The worthiness of equity is based on the present share price or a value regulated by the valuation professionals or investors. This account is also known as owners or stockholders or shareholders equity.

There are two types of equity:

**Book Value.** In accounting, equity is listed in its book value and calculated by the financial statement record and the balance sheet equation. The equation used to evaluate book value is  $\text{Equity} = \text{Assets} - \text{Liabilities}$ . Though the assets are the sum-up of all the company's both non-current and current assets. Other details incorporated in the main account assets are fixed assets, cash, inventory, accounts receivable, property plant, intangible assets, etc. Similar, the liabilities are sum up of current and non-current liabilities on the balance sheet. Other accounts are short-term debt, credit, deferred revenue, accounts payable, long-term debt, fixed financial commitment and capital leases.

Market Value. In finance, equity is indicated as market value, which might be significantly lower or higher than the book value. The difference is because the accounting statement is looking at the past (past expenditures), while financial statement is looking ahead and forecast what the financial status of a company be.

For a public traded company, the market value of its equity is calculated as Market Value= Share Price X Shares Outstanding. Whereas, for a private company to analyse the market value an investment bankers, boutique valuation firm or accounting firm are hired.

According to the international accounting standards, equity is the residual interest in the assets of the entity after deducting all its liabilities. [F 4.4(c)]

### Simplified format of a Balance Sheet/ statement of financial position

#### XYZ Company

#### Statement of financial position

As at December 31, 202X

	Cost	Dep	NBV
<b>Fixed assets</b>			
Land	x		X
Premises	x	X	X
Machinery	x	X	X
Motor vehicles	x	X	<u>X</u>
			X
<b>Current assets</b>			
Stock		X	
Debtors	x		
Provision for bad debts	<u>(x)</u>	X	
Prepayments		X	
Bank		X	
		X	
<b>Current liabilities</b>			
Creditors	x		
Accrued expenses	<u>x</u>	<u>(x)</u>	
Net current assets			<u>X</u>
Total net assets			<u>Xx</u>
<b>Financed by</b>			
Capital			X
Net profit			<u>X</u>
			<u>Xx</u>

A balance sheet/ statement of financial position is a summary of the three key elements as captured in form of: business assets (what the business owns), capital or equity and liabilities (what the business owes). At any particular moment, it shows you how much money you would have left over if you sold all your assets and paid off all your debts (i.e. it also shows 'owner's equity'). The 'statement of financial position' provides a snapshot of your assets and liabilities — and therefore net worth at a single point in time (unlike other financial statements, such as income statement, which give you information about your business over a period of time).

### 3. The Statement of Cash Flows /Cash Flow Statement

**Statements of cash flows** are a critical component to the financial statements of a business entity because accounting profit is one of the many indicators of performance and therefore other measures of performance should be used. The statement of cash flows focuses on the sources and uses of cash and are a useful indicator of a business entity liquidity and solvency.

The *Statement of Cash Flows* reports the cash receipts, cash payments, and net change in cash resulting from the *operating, investing, and financing activities* of an enterprise during a period.

The *Statement of Cash Flows* is prepared in a format that reconciles the beginning and ending cash balances.

*Note that beginning and ending balances for cash are found on the Balance Sheet. Thus, the cash flow statement is really a report which shows all of the debits and credits to cash during an accounting cycle in a particular format.*

The *Statement of Cash Flows* is designed to answer the following questions:

- Where did cash come from during the period (i.e., source of debits to cash)?
- Where did cash go during the period (i.e., source of credits to cash)?
- What was the change in cash balance during the period?

“Cash Flows” reported on the *Statement of Cash Flows* are cash and *cash equivalents*.

#### Classifications of cash flows

Cash flows fall into three categories:

##### Operating activities

This is the key part of the statement of cash flows because it shows whether, and to what extent, companies can **generate cash from their operations**. It is these operating cash flows

which must, in the end pay for all cash outflows relating to other activities, i.e. paying loan interest, dividends etc.

Most of the components of cash flows from operating activities will be those items which **determine the net profit or loss of the enterprise**, i.e. they relate to the main revenue-producing activities of the enterprise. The international accounting standard 7 (IAS 7) gives the following as examples of cash flows from operating activities.

- (a) Cash receipts from the sale of goods and the rendering of services
- (b) Cash receipts from royalties, fees, commissions and other revenue
- (c) Cash payments to suppliers for goods and services
- (d) Cash payments to and on behalf of employees

Certain items may be included in the net profit or loss for the period which do *not* relate to operational cash flows, for example the profit or loss on the sale of a piece of plant will be included in net profit or loss, but the cash flows will be classed as **financing**.

### **Investing activities**

The cash flows classified under this heading show the extent of new investment in **assets which will generate future profit and cash flows**. The standard gives the following examples of cash flows arising from investing activities.

- (a) Cash payments to acquire property, plant and equipment, intangibles and other non-current assets, including those relating to capitalised development costs and self-constructed property, plant and equipment
- (b) Cash receipts from sales of property, plant and equipment, intangibles and other non-current assets
- (c) Cash payments to acquire shares or debentures of other enterprises
- (d) Cash receipts from sales of shares or debentures of other enterprises
- (e) Cash advances and loans made to other parties
- (f) Cash receipts from the repayment of advances and loans made to other parties

### **Financing activities**

This section of the statement of cash flows shows the share of cash which the enterprise's capital providers have claimed during the period. This is an indicator of **likely future interest and dividend payments**. The standard gives the following examples of cash flows which might arise under these headings.

- (a) Cash proceeds from issuing shares
- (b) Cash payments to owners to acquire or redeem the enterprise's shares
- (c) Cash proceeds from issuing debentures, loans, notes, bonds, mortgages and other short or long term borrowings
- (d) Cash repayments of amounts borrowed

## Reporting cash flows from operating activities

The standard offers a choice of method for this part of the statement of cash flows.

- (a) **Direct method:** disclose major classes of gross cash receipts and gross cash payments
- (b) **Indirect method:** net profit or loss is adjusted for the effects of transactions of a non-cash nature, any deferrals or accruals of past or future operating cash receipts or payments, and items of income or expense associated with investing or financing cash flows

The **direct method** discloses information, not available elsewhere in the financial statements, which could be of use in estimating future cash flows. However, the **indirect method** is simpler, more widely used.

### NB

Note that the following items are treated in a way that might seem confusing, but the treatment is logical if you **think in terms of cash**.

- (a) **Increase in inventory** is treated as **negative** (in brackets). This is because it represents a cash **outflow**; cash is being spent on inventory.
- (b) An **increase in receivables** would be treated as **negative** for the same reasons; more receivables means less cash.
- (c) By contrast an **increase in payables is positive** because cash is being retained and not used to settle accounts payable.

## Format of the Cash Flow Statement

Under GAAP, there are two acceptable formats for the cash flow statement. They are the **Direct Method** and the **Indirect Method**. 95% of the time businesses use the indirect method because it is easier to prepare.

### Indirect method

XYZ Company  
Statement of Cash Flows  
For The Year Ended December 31, 202X

#### Cash flows from operating activities

Net income		xx
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	x	
(Profit)Losses on disposal of fixed assets	<u>x</u>	
Operating cash flows before movement in working capital		xx
Decrease (increase) in accounts receivable	X	
Decrease (increase) in inventories	X	
Decrease (increase) in prepaid expenses	X	

Increase (decrease) in accounts payable	X	
Increase (decrease) in payroll-related liabilities	X	
Increase (decrease) in other non-debt short-term liabilities	<u>X</u>	<u>XX</u>
<b>Net cash provided by (used by) operating activities</b>		<b>XX</b>
<b>Cash flows from investing activities</b>		
<b>Cash inflows</b>		
Sale of equipment	X	
Sale of investments	X	
Dividends from joint ventures and associates	x	
Interest received	x	
<b>Cash outflows</b>		
Purchase of fixed assets	(X)	
Purchase of investments	<u>(X)</u>	
<b>Net cash provided by (used by) investing activities</b>		<b>XX</b>
<b>Cash flows from financing activities</b>		
<b>Cash inflows</b>		
Proceeds from long term loans	X	
Proceeds from short term loans	X	
Sale of common stock	X	
<b>Cash outflows</b>		
Repayments of long term loans	(X)	
Repayments of short term loans	(X)	
Payment of dividends	<u>(X)</u>	
<b>Net cash provided by (used by) financing activities</b>		<b>XX</b>
<b>Net increase in cash</b>		<b>XX</b>
<b>Cash at beginning of the period</b>		<b><u>XX</u></b>
<b>Cash at the end of the period</b>		<b><u>XX</u></b>
<b>Non-cash investing and financing activities</b>		
Purchasing equipment with long term debt		XX

#### 4. Statement of Shareholders Equity

Statement of Shareholders Equity also referred to as Statement of Changes in Equity is a financial record that reconciles the opening and closing balances of equity in a company during a particular reporting period. It explains the connection between a company's income statement and balance sheet and also includes all those transactions not captured in these two financial statements, such as dividend payment, equity withdrawal, accounting policies changes, and corrections of prior period errors, etc.

The primary purpose of Statement of Changes in Equity is to provide details about all the movements in the equity account during an accounting period, which is otherwise not available anywhere else in the financial statements. As such, it helps the shareholders and investors in making more informed decisions about their investments. Further, it also allows the analysts and other readers of the financial statements to understand what factors resulted in the change in the equity capital.

### Components of changes in shareholders equity

Typically, a statement of shareholders equity summarizes changes in the following equity components:

- **Common stock**, which represents the legal capital of the company and it equals the product of shares issued and the stated value of each share.
- **Additional paid-up capital (also called share premium)**, which is the excess of paid-up capital over the legal capital.  $\text{Additional paid-up capital} = (\text{issue price} - \text{stated price}) \times \text{total number of shares issued}$ .
- **Treasury stock**, which represents the value of shares repurchased by the company. It is a contra-account to the paid-up capital.
- **Capital reserve(s)**.
- **Retained earnings**: accumulated earnings since the start of the company net of dividends paid or any restatement adjustments.
- **Gains and losses on cash flow hedge**: unrealized portion of change in fair value.
- **Gains and losses on available for sale securities**: i.e. the unrealized portion of change in fair value.
- **Revaluation surplus**: represents the effect of revaluation of fixed assets.

Following are the most common changes in shareholders' equity:

- **Issue of new share capital**: it increases the common stock and additional paid-up capital component.
- **Net income (loss) for the period**: it increases (decreases) retained earnings.
- **Payment of cash dividends**: it decreases retained earnings.
- **Purchase of treasury stock**: it increases treasury stock component and eventually decreases total net shareholders equity.
- **Sale of treasury stock**: it decreases treasury stock component and affects retained earnings and additional paid-up capital and ultimately increases total shareholders equity.
- **Issue of bonus shares**: affects common stock, additional paid-up capital and retained earnings.
- **Revaluation of fixed assets**: increases revaluation surplus.
- **Reversal of revaluation of fixed assets**: may decrease revaluation surplus.

- Effect of foreign-exchange translation: increase/decrease in foreign-exchange reserve.
- Effect of changes in value of available-for-sale securities: increase/decrease in available-for-sale securities reserve.
- Restatement of financial statements, for e.g. due to change in accounting principle: changes in retained earnings.

**XYZ Company**  
**Statement of Shareholders Equity**  
**For The Year Ended December 31, 202X**

	Note	Common stock	Additional paid-in capital	Capital reserve	Treasury stock	Retained earnings	Revaluation surplus	Total
in million								
Balance as at 1-Dec-202x		x	x	x	-	x	x	x
Issue of bonus shares	A	x	x	-	-	(x)	-	-
Issue of new shares	B	x	x	-	-	-	-	x
Net income	C	-	-	-	-	x	-	x
Transfer to capital reserve	D	-	-	x	-	(x)	-	-
Dividends	E	-	-	-	-	(x)	-	x
Share buyback	F	-	-	-	(x)	-	-	(x)
Reversal of revaluation	G	-	-	-	-	-	(x)	(x)
Balance as at 31-Dec-202x		x	x	x	(x)	x	x	x

**Additional Information**

Financial statements are not the sole output of a financial reporting system. Additional information about a company is also communicated. A thorough financial statement analysis involves examining this additional information.

## Management's report

Companies with publicly traded debt and equity securities are required to file a Management's report. Management must highlight any favorable or unfavorable trends and identify significant events and uncertainties that affect a company's liquidity, capital resources, and results of operations.

They must also disclose prospective information involving material events and uncertainties known to cause reported financial information to be less indicative of future operating activities or financial condition.

The purposes of this report are to reinforce:

- (1) senior management's responsibilities for the company's financial and internal control system
- (2) the shared roles of management, directors, and the auditor in preparing financial statements

## Auditor Report

An external auditor is an independent certified public accountant hired by management to provide an opinion on whether or not the company's financial statements are prepared in conformity with generally accepted accounting principles. Financial statement analysis requires a review of the auditor's report to ascertain whether the company received an unqualified opinion. Anything less than an unqualified opinion increases the risk of analysis.

## Explanatory Notes

Explanatory notes that accompany financial reports play an integral part in financial statement analysis. Notes are a means of communicating additional information regarding items included or excluded from the body of the statements. The technical nature of notes creates a need for a certain level of accounting knowledge on the part of financial statement analysts. Explanatory notes include information on:

- *Accounting policies.* Describe significant principles followed.
- *Accounting changes.* The nature and justification of a change in accounting principle, and the effect of the change.
- *Related parties.* The nature of the relationship with a related party, and the amounts due to or from the other party.
- *Contingencies and commitments.* Describe the nature of any reasonably possible losses, and any guarantees, including maximum liabilities.
- *Risks and uncertainties.* Note the use of significant estimates in accounting transactions, as well as various business vulnerabilities.
- *Nonmonetary transactions.* Describe nonmonetary transactions and any resulting gains or losses.
- *Subsequent events.* Disclose the nature of subsequent events and estimate their financial effect. E.g. lawsuit or bad debt occurring after a reporting period but before financial statements are issued.

- *Business combinations.* Describe the type of combination, the reason for the acquisition, the payment price, liabilities assumed, goodwill incurred, acquisition-related costs etc.
- *Fair value.* Disclose the amount of fair value measurements, the reasons for the fair value election (if applicable), and various reconciliations.
- *Cash.* Note any uninsured cash balances.
- *Receivables.* Note the carrying amount of any financial instruments that are used as collateral for borrowings, and concentrations of credit risk.
- *Investments.* Note the fair value and unrealized gains and losses on investments.
- *Inventories.* Describe any cost flow assumptions used, as well as any lower of cost or market losses.
- *Fixed assets.* Note the methods of depreciation used, the amount of capitalized interest, asset retirement obligation and impairments.
- *Goodwill and intangibles.* Reconcile any changes in goodwill during the period, and any impairment losses.
- *Liabilities.* Described larger accrued liabilities.
- *Debt.* Describe loans payable, interest rates, and maturities occurring over the next five years.
- *Pensions.* Reconcile various elements of the company pension plan during the period, and describe investment policies.
- *Leases.* Itemize future minimum lease payments.
- *Stockholders' equity.* Describe the terms of any convertible equity, dividends in arrears, and reconcile changes in equity during the period.
- *Segment data.* Identify company segments and the operational results of each one.
- *Revenue recognition.* Note the company's revenue recognition policies.

## QUESTIONS

1. Explain why financial statements are important to the decision-making process in financial analysis.
2. Discuss the limitations of financial statements that an analyst may encounter during analysis.
3. Explain at least seven additional sources of financial reporting information (beyond financial statements) that are useful for analysis

## References

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