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Accounting

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Introduction

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Welcome to the official accounting eBook from the Corporate Finance Institute. In this 40-page summary, we walk through all the important bookkeeping and accounting principles. From general transaction-keeping conventions to the full accounting cycle and finally to important accounts in the financial statements, this eBook touches on all the major topics in accounting and managing a company's financials. We hope you find this book useful in reaching your future goals.

Sincerely,
The Corporate Finance Institute

PART 01

Bookkeeping

What is Bookkeeping?

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Bookkeepers are individuals that manage all the financial data for companies. Under the general notion that knowledge is power, bookkeepers to a certain degree have a high level of power within a company given their access and knowledge of all its financials. With proper bookkeeping, companies are able to track all information in the company's books to help make key decision, which include operating, investing, and financing matters. Without bookkeepers, companies would have no clue about their current financial position and any transactions that occur within the company. Just as much as bookkeeping is important to the company's internal users, accurate bookkeeping is also crucial to external users: investors, financial institutions, or the government who needs access to reliable information to make better investment or lending decisions. Simply put, our whole economy relies on accurate and reliable bookkeeping for both internal and external users.

Many small companies don't actually hire full-time accountants to work for them because the costs are usually higher. Instead, small companies generally hire a bookkeeper or outsource their bookkeeping duties to a professional bookkeeping firm. An important thing to note here is that many people who have ambitions on starting a new business sometimes overlook the importance of trivial stuff such as records of every penny spent. Running a business, however, is a marathon and not a sprint and to help achieve longevity, bookkeeping is essential! Proper bookkeeping and a proper financial trail give companies a reliable measure of how well or how poor they are doing. It also provides guidance on general strategic decisions and a benchmark for profit goals. In short, bookkeeping, once a business is up and running, is your best friend so spending the extra time and money on maintaining proper records is critical.

Accrual vs Cash Basis of Accounting

In order to properly implement bookkeeping, companies need to first choose the accounting method they will follow. Companies can choose between two basic accounting methods: the cash basis of accounting or the accrual basis of accounting. The difference between these types of accounting is based on when you, the company, actually record the sale (money inflow) or purchase (money outflow) in the books.

	Cash Basis	Accrual Basis
Definition	Record transactions only when cash is actually received or paid	Record transactions when it occurs, even if cash is not received or paid
Example situation: You purchased 100 units of a product and will pay for it next month.	No transaction recorded	Transaction recorded through an accounts payable (liability) account. More later.

Accounts

There are many different accounts that are used to keep track of financial transactions. The main general accounts are as follows:

- Asset
- Liabilities
- Shareholder's Equity
- Revenue
- Expense

Assets, liabilities, and shareholder's equity are the main accounts in a financial statement called the balance sheet, or the statement of financial position. The balance sheet shows a company's financial position at a certain point in time. Assets include everything that the company owns, whether it be cash, inventory, buildings, equipment, and automobiles. Liabilities include everything that the company owes to others at a future date, such as bank loans, vendor bills, etc. Finally, shareholder's equity includes claims that owners have on the assets based on their portion of ownership. A common equity account is common and preferred shares.

Revenue and expense accounts are the main accounts seen in an income statement. The income statement shows a company's performance for a certain duration in time, usually its fiscal year (from January to December). Whenever bookkeepers record a transaction, multiple accounts are affected, whether they are different accounts (assets and liabilities) or within the same general account (changes in two different asset accounts).

The Accounting Equation

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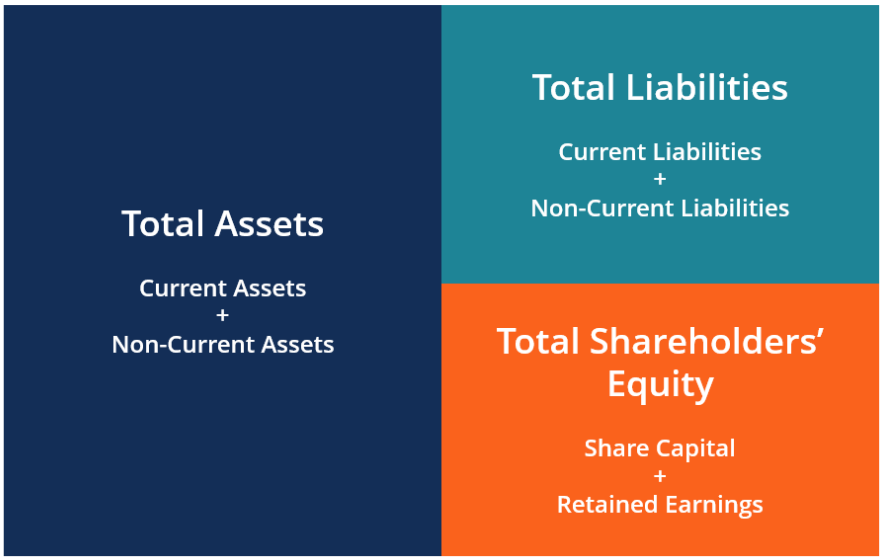
Whenever a company records a transaction, three key financial components must always be kept in balance: assets, liabilities, and equity. This is referred to as the accounting equation:

Assets = Liabilities + Equity

For example, if a company purchased a vehicle for $50,000 in cash, assets would both go up and down by $50,000. The company has gained an asset (i.e. the vehicle) while losing as asset (i.e. cash) by purchasing the car. Hence, the accounting equation remains intact. In another example, if a company borrows $100,000 from a bank, the company's cash asset account goes up as well as the company's liability account. Because both assets and liabilities go up by $100,000, the accounting equation remains intact. All transactions must follow this general rule to implement proper financial reporting. If the accounting equation is not balanced, you know that something has gone wrong and need to make the necessary changes.



Debits and Credits

When most people hear the term debits and credits, they think of debit cards and credit cards. Debit cards refer to straight up cash payments while credit cards are a form of borrowing. In addition, most non-accountants think of debits as subtractions from their bank accounts and credits as additions to their accounts. In accounting, however, debits and credits refer to completely different things.

Debits and Credits are simply accounting jargons that trace their roots to hundreds years ago and are still used in today's double-entry accounting system. A double-entry accounting system means that every transaction that a company makes is recorded in at least two accounts, where one account will get a "debit" entry while another account will get a "credit" entry.

These entries are recorded as journal entries in the company's books. Debits and credits can mean either increasing or decreasing for different accounts, but their T-Account representations look the same in terms of left and right positioning.

Journal Entries

Journal entries are by far one of the most important skills to master as a professional accountant or a bookkeeper. Without proper journal entries, companies' financial statements would be inaccurate. An easy way to understand journal entries is to think of Isaac Newton's third law of motion, which states that for every action, there is an equal and opposite reaction. So, whenever a transaction occurs within a company, there must be at least two accounts being affected.

Going back to the previous example, if a company bought a car, the company's assets would go up by the value of the car. However, there needs to be an additional account that changes (i.e. the equal and opposite reaction). The other account that is affected is the company's cash, which goes down because they used the cash to purchase the car. Finally, just like how the size of the forces on the first object must equal that of the second object, so must the debits and credits of every journal entry.

How to Approach Journal Entries

A journal is the company's official book wherein all transactions are recorded in chronological order. Although many companies nowadays use accounting software to book journal entries, journals were the predominant method of booking entries in the past. In every journal entry that is recorded, the debits and credits must be equal to ensure that the accounting equation (A = L + SE) remains in balance. When doing journal entries, we must always consider four factors:

1. Which accounts are affected by the transaction
2. For each account, determine if it is increased or decreased
3. For each account, determine by how much it changed
4. Make sure that the accounting equation stays in balance

Journal Entry Examples

The best way to master journal entries is through practice. Here are numerous examples that illustrate some common journal entries. The first example is a complete walkthrough of the process.

Example 1:
Borrowing money journal entry

ABC Company borrowed $300,000 from the bank

- The accounts affected are cash (asset) and bank loan payable (liability)
- Cash is increasing because we are receiving cash from the bank and bank loan payable is increasing because the company is increasing its liability to pay back the bank at a later date
- The amount in question is $300,000
- A = L + SE, A is increased by 300,000 and L is also increased by 300,000, keeping the accounting equation intact

Therefore, the journal entry would look like:
DR Cash: 300,000
CR Bank Loan Payable: 300,000

Example 2:
Purchasing equipment journal entry

Purchased equipment for $650,000 in cash
The accounts affected are cash (asset) and equipment (asset)

DR Equipment: 650,000
CR Cash: 650,000

Example 3:
Purchasing inventory journal entry

Purchased inventory costing $90,000 for $10,000 in cash and the remaining $80,000 on account.

DR Inventory: 90,000
CR Cash: 10,000
CR Accounts Payable: 80,000

Example 4:
Acquiring land journal entry

Purchased land costing $50,000 and buildings costing $400,000. Paid $100,000 in cash and signed a note payable for the balance.

DR Land: 50,000
DR Buildings: 400,000
CR Cash: 100,000
CR Note payable: 350,000

How to Track Journal Entries

A significant component of accounting involves financial reporting. Financial reporting is the act of presenting a company's financial statements to management, investors, the government, and other users to make better business decisions.

In order to determine the final monetary value of accounts that are listed on financial statements in the company's year end, multiple journal entries are recorded and tracked in an account called a T-Account, which is a visual representation of a general ledger account. The appropriate debits and credits are listed under the appropriate columns under these T-Accounts to determine the final value to be reported.

T-Accounts

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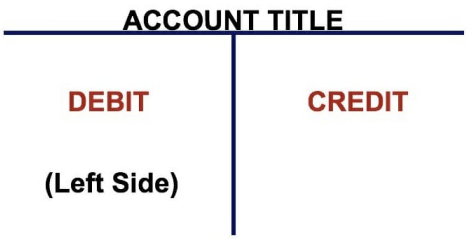
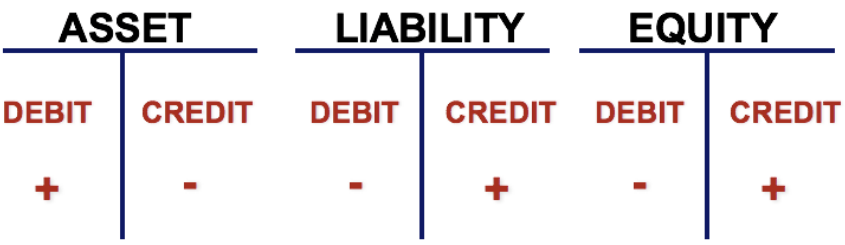
In accounting, T-Accounts will be your new best friend. A T-Account is a visual representation of individual accounts that looks like a "T" so that all additions and subtractions to the account can be easily tracked. Each separate account will have its own individual T-Account. A typical T-Account looks like the following:



T-Accounts Explained

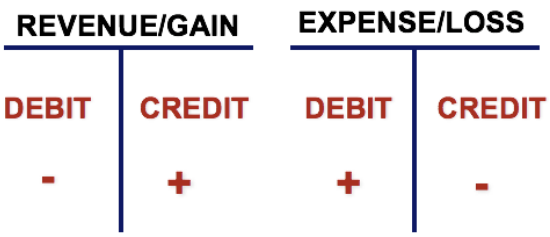
The left side of the T-Account is always the debit side and the right side is always the credit side no matter what the account is. For different accounts, debits and credits can mean either an increase or a decrease, but in a T-Account, the debit is always on the left side by convention. Let's take a more in-depth look at the T-accounts for different accounts – assets, liabilities, and shareholder's equity – which are the major components of the Balance Sheet, or Statement of Financial Position.



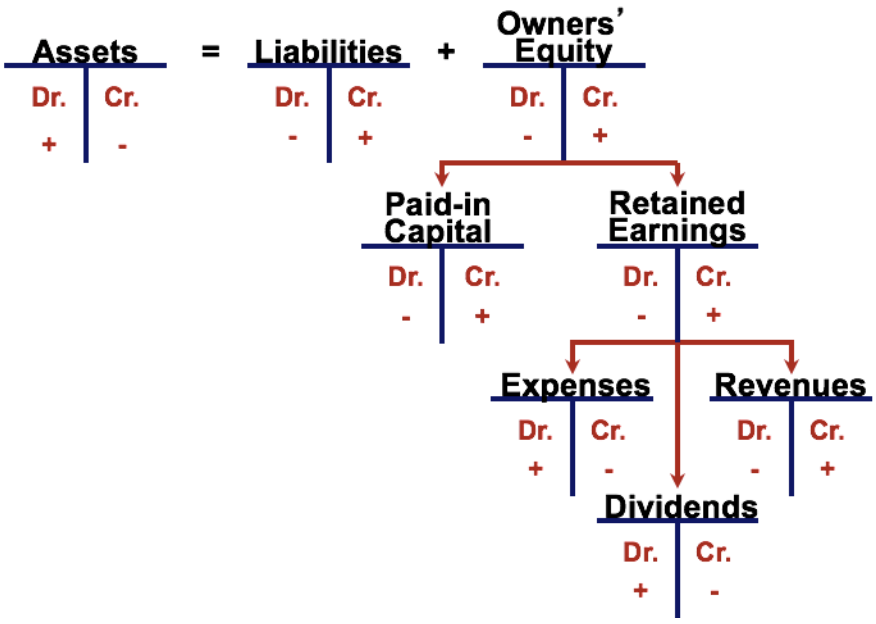
For asset accounts, which include cash, accounts receivable, inventory, PP&E, and others, the left side of the T-Account (debit side) is always an increase to the account. The right side (credit side) is conversely, a decrease to the asset account. For liabilities and equity accounts, the debit and credit sides of the T-Account are the same, however, the debit side signifies a decrease to the account and the credit side signifies an increase to the account.

T-Accounts for Income Statement Accounts

T-Accounts are also used for income statement accounts, which include revenues, expenses, gains, and losses.



Once again, debits to revenue/gain decrease the account while credits increase the account. The contrary is true for expenses and losses. Putting all the accounts together, we can examine the following:



Using T-Accounts, tracking multiple journal entries within a certain period of time becomes more feasible. Every journal entry is posted to its respective T-Account on the correct side by the correct amount. For example, if a company issued shares for $500,000, the journal entry would be composed of a Debit to Cash and a Credit to Common Shares. If the company issued additional shares for $400,000 the balance would accumulate in the respective T-Accounts.

Adjusting Entries

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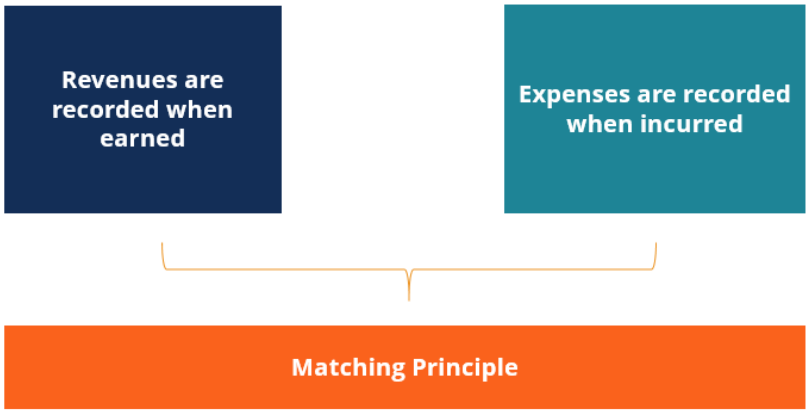
Why do we need to adjust journal entries?

Adjusting entries are required at the end of each fiscal period to align the revenues and expenses to the "right" period due to the matching principle in accounting. In general, there are two types of adjusting journal entries: accruals and deferrals. Adjusting entries generally occur before financial statements are released. The two main categories where adjustments arise are:

- Accruals: Revenues earned or expenses incurred that have not been previously recorded
- Deferrals: Receipts of assets or payments of cash in advance of revenue or expense recognition



An example of adjusting entries

Consider XYZ Company that took out a loan from a bank on December 1, 2017. The first interest payment is to be made on June 30, 2018 and the company is preparing its financial statements for the year ending December 31, 2017. Even though the interest payment is to be made on June 30 in the following year, to properly report the company's financial status, the company must accrue the interest expense for the month of December and include that value even though the expense was not actually paid (i.e. an exchange in cash). This is an accounting system called the accrual basis of accounting.

The accrual basis of accounting states that expenses are matched with its related revenues and are reported when the expense is incurred, not when cash changes hand. Therefore, adjusting the entries are required because of the matching principle in accounting.

Four types of adjusting journal entries
There are four specific types of adjustments:

1. Accrued expenses
2. Accrued revenues
3. Deferred expenses
4. Deferred revenues

Deferred and accrued revenue

	Deferred Revenue	Accrued Revenue
Definition	When cash is received prior to earning revenue by delivering goods or services, the company records a journal entry to recognize unearned revenue.	When revenues are earned but not yet recorded at the end of the accounting period because cash changes hands after the service is performed or goods delivered.
Situational examples	• Gift cards • Airline miles • Subscriptions to newspaper and magazines	• A customer acquired goods and agreed to pay the following month • A company earned interest revenue from the bank on its checking account and had not yet recorded it
Adjustment Journal Entry	XYZ Company delivered services in September for an $800 payment that was made three months ago. DR Unearned Revenue: 800 CR Sales Revenue: 800	XYZ Company delivered services on the last day of the month and sent an invoice for $4,400. DR Accounts Receivable: 4,400 CR Sales Revenue: 4,400

Deferred and accrued expenses

	Deferred Expense	Accrued Expense
Definition	Amounts paid for in advance of using assets that benefit more than one period	The process of recognizing expenses before the cash is paid
Situational examples	• Prepayment of advertising, insurance, or rent becomes used up over time	• Utility bill received in the mail for the month just completed • Employees earned wages before the month ended, to be paid in the following month
Adjustment Journal Entry	One month of XYZ Company's insurance expired in June. The original payment of $800 covers June through September. DR Insurance Expense: 200 CR Prepaid Insurance: 200	XYZ Company's employees earned $550 during June and are paid in July. DR Wages Expense: 550 CR Wages Payable: 550 DR Wages Payable: 550 CR Cash: 550

General Ledger

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The general ledger serves as the eyes and ears of bookkeepers and accountants and show all financial transactions that have occurred within a business. Essentially, it is a huge compilation of all transactions within a company recorded on a specific document or accounting software, which is the predominant method nowadays. For example, if you want to see how cash has changed over the course of the business and all its relevant transactions, you would look at the general ledger, which shows all the debits and credits of cash. Although all of this was done on paper back in the day, many companies today use accounting software such as QuickBooks, Sage, or Simply Accounting to easily maintain their ledgers.

Cash

Date	Description	Increase	Decrease	Balance
Jan. 1, 20X3	Balance forward			$ 50,000
Jan. 2, 20X3	Collected receivable	$ 10,000		60,000
Jan. 3, 20X3	Cash sale	5,000		65,000
Jan. 5, 20X3	Paid rent		$ 7,000	58,000
Jan. 7, 20X3	Paid salary		3,000	55,000
Jan. 8, 20X3	Cash sale	4,000		59,000
Jan. 8, 20X3	Paid bills		2,000	57,000
Jan. 10, 20X3	Paid tax		1,000	56,000
Jan. 12, 20X3	Collected receivable	7,000		63,000

Summary of the Accounting Cycle

With all the relevant skills and general accounts mastered, one of the main duties of a bookkeeper is to keep track of the full accounting cycle from start to finish. The cycle will repeat itself every fiscal year as long as the company remains in business. The accounting cycle incorporates all accounts, journal entries, T-Accounts, debits and credits, adjusting entries into a full cycle. The process involves eight steps:

1. Transactions

Financial transactions start the process. If there are no financial transactions, there's nothing to keep track of. Transactions may include a debt payoff, purchases or acquisitions of assets, sales revenue or any expenses incurred.

2. Journal Entries

With the transactions set in place, the next step is to record these entries in the company's journal in chronological order. Debiting one or more accounts and crediting one or more accounts, the debits and credits must always balance.

3. Posting to the General Ledger

The journal entries are then posted in the general ledger where a summary of all the transactions to individual accounts can be seen.

4. Trial Balance:

At the end of the accounting period (this may be quarterly, monthly, or yearly depending on the company), a total balance is calculated for the accounts.

5. Worksheet:

When the debits and credits on the trial balance don't match, the bookkeeper must look for errors and adjustments and are tracked on a worksheet.

6. Adjusting Entries

At the end of the company's accounting period, adjusting entries must be posted to account for accruals and deferrals.

7. Financial Statements

The balance sheet and the income statement can be prepared using the correct balances.

8. Closing

The revenue and expense accounts are closed and zeroed out for the next accounting cycle. This is because revenue and expense accounts are income statement accounts, which show the company's performance for a specific time period. Balance sheet accounts are not closed because they show the company's financial position at a certain point in time.

Petty Cash

Although there is normally only one cash account in most company's statement of financial position, petty cash is a current asset account under the more general "cash" account. Petty cash refers to the notion that every business needs cash on a regular basis, whether to pay for office supplies, mail services or meals. Therefore, businesses keep some cash on hand, called petty cash, for any unexpected expenses.

Obviously, companies don't want to have lots of cash just sitting around in the office. Petty cash amounts vary between companies but may be anywhere from $50 to $1,000. Companies that spend more or less cash than expected may adjust their petty cash balances accordingly. Petty cash can often be used to reimburse employees for small expenses as well.

No matter the balance, it is important for companies to set up a good internal controls system that can keep track of all cash inflows and outflows from the petty cash account. For example, anyone that comes into contact with petty cash should be required to write their name, date, time and specific amount and description of the transaction. All these details are usually completed through a petty cash voucher/worksheet. The best way to control petty cash is to designate one person in the office to manage the amount. Petty cash vouchers can come in many different forms but all generally require similar information. An example of a petty cash voucher may look like this:

Petty Cash Report

Department _____ Date _____

Manager _____ Starting Balance _____

Date	Paid To / Rec'd From	Purpose	Amount	Balance

Bank Reconciliations

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A bank reconciliation is a document that matches the cash balance in the company's books to the corresponding amount on its bank statement. Bank reconciliations are completed at regular intervals to ensure that the company's cash records are correct. Bank reconciliations also help detect fraud and any cash manipulations.

When banks send companies a bank statement that contains the company's beginning cash balances, transactions during the period, and ending cash balance, almost always, the company's ending cash balance and the bank's ending cash balance will never be the same. Some reasons for this difference may be due to any deposits in transit such as cash and cheques that have been received and recorded but have not yet been recorded in the bank records, outstanding cheques, or bank service fees.

Bank Reconciliation Procedure:

1. Start with the bank's ending cash balance
2. Add: Any deposits in transit
3. Deduct: Any cheques that have not yet been cleared (i.e. outstanding cheques)
4. Go to the company's ending cash balance and deduct any bank service fees and penalties and add any interest earned
5. At the end, the adjusted bank balance should equal the company's ending adjusted cash balance

Example: XYZ Company is closing its book and must prepare a bank reconciliation for the following items:

- Bank statement contains an ending balance of $300,000
- Bank statement contains a $100 service charge for operating the account
- Bank statement contains interest income of $20
- XYZ issued $50,000 of cheques that have not yet cleared the bank
- XYZ deposited $20,000 but did not appear in the bank statement

		Item #	Adjustment to Books
Bank Balance	$300,000	1	
Deduct: Service charge	-100	2	Debit expense, credit cash
Add: Interest income	+20	3	Debit cash, credit interest income
Deduct: Uncleared cheques	-50,000	4	None
Add: Deposit in transit	+20,000	5	None
Book Balance	$269,920		

PART 02

Accounting Principles

Financial Accounting Theory

01

02

03

Financial Accounting Theory

Now that we've covered some general bookkeeping and accounting conventions, let's take a closer look at financial accounting, its importance, and specifically assets, liabilities, and equity accounts. Financial accounting theory focuses on the "why" of accounting – the reasons why transactions are reported in certain ways.

The majority of introductory accounting courses, cover the "what" and "how" of accounting. These include looking at hundreds of journal entries, gaining familiarity with all the common accounts that companies use, and learning how financial statements are put together and how to calculate the proper debit and credit amounts

Uncertainty and information asymmetry

One key factor in accounting involves the transmission of financial information to anyone who may need the information. These users then use this accounting information to make business and investment decisions or may choose to make no decision at all. However, in order to make proper decisions, the information being provided needs to be reliable and relevant. In financial reporting, we commonly encounter a phenomenon called information asymmetry. This is a situation in which one party has more or less information than another party.

There are two types of information asymmetry pertinent to financial accounting theory:

Adverse Selection	Moral Hazard
Hidden information	Hidden action/behavior
One party has an information advantage over another party	One party can observe the actions while the other party cannot
Hidden information from the past and present	Hidden future action
Example: Buying a used car	Example: Instructors assigning higher weight on exams than homework

In an ideal world, the economy would be characterized by perfect markets without information asymmetry. Financial statements issued by companies could then be said to be 100% relevant and 100% reliable. Relevant in the fact that the information will prove useful to external users, and reliable in the fact that they will be completely free from bias. The lesson here is that in the world we live in today, we must be aware of the fact that no set of financial statements are 100% reliable and 100% relevant. In accounting and in today's markets, there will always be a trade-off between reliability and relevance.

Supply and demand of accounting information

The existence of information asymmetry creates a supply and demand for financial reporting. Financial reporting is the preparation of information about the reporting entity and the transmission of that information from those who have it (supply) to those who need it (demand). Suppliers of accounting information refer to accountants and the body that produces the financial statements. Those who demand the information refer to internal/external users who require that information to make investment decisions.

The Purpose of Financial Reporting

Although the specific objective and purpose of financial reporting may be different for different accounting bodies, the general theme is highly similar. According to IFRS, the objective of financial reporting is to "provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling, or holding equity and debt instruments, and providing or settling loans and other forms of credit." IFRS also states that these decisions depend on the user's expectations on the risk, amount, and timing of future net cash inflows of the reporting entity. Those decisions involve buying, selling, or holding equity and debt instruments, and providing or settling loans and other forms of credit." IFRS also states that these decisions depend on the user's expectations on the risk, amount, and timing of future net cash inflows of the reporting entity.

Positive financial accounting theory

Given the non-ideal market that we live in today, it is only natural that management will take advantage of this information asymmetry. Although company perceptions are important, managers are predominantly concerned with ways of maximizing their perks and their compensation. This is commonly referred to as earnings management, or management's efforts to influence financial information in one way or another. Therefore, there is a theory called positive accounting theory that tries to understand a manager's motivations, accounting policy choices, and reactions to different accounting standards. Some reasons why earnings management is done may include the following reasons:

Reasons for Upward Earnings Management	Reasons for Downward Earnings Management
Bonuses given out in relation to net income	Reduction in taxes
Meeting debt covenants	Increase the chances of obtaining government assistance
Enhancing the perception of the company (i.e. reducing the perception of risk)	Taking a "big bath" in a bad year by recording more expense than usual so future years are more likely to show higher profitability

Securities law and financial accounting theory

Securities laws around the world are fully aware of this information asymmetry phenomenon in our economy and have put in place measures to protect investors.

For example, public companies must adhere to securities laws set out by the Canadian Securities Administrators (CSA) in Canada or the Securities and Exchange Commission (SEC) in the United States.

An example of a specific measure is when these laws set out "black-out periods" where management and other individuals with access to more sources of information are not allowed to buy or sell company shares because they have an information advantage over users that only have access to the financial statements.

Financial Accounting vs Cost Accounting

While financial accounting is required by law and mainly performed to benefit external users, managerial accounting is not required by law and is done to provide useful information to people within an organization, mainly management, to make better internal business decisions.
A clear comparison can be seen in the following table:

	Financial Accounting	Managerial Accounting
Purpose of information	To communicate the company's financial position to external users (i.e. investors, banks, regulators, government)	To help management make better decisions to fulfill the company's overall strategic goals
Primary users	External users	Internal (management)
Focus and emphasis	Past-oriented	Future-oriented
Time span	Annual or quarterly financial reports depending on company	Varies from hourly to years of information

Assets

Accounts Receivable

Accounts Receivable (A/R) represents the credit sales of a business, which have not yet fully been paid by its customers. Companies allow their clients to pay at a reasonable, extended period of time, provided that the terms are agreed upon. For certain transactions, a customer may receive a discount for paying the receivable back to the company early.

The average A/R days assumption is an important part of forecasting changes in non-cash working capital in financial modeling.

Why use Accounts Receivables instead of Cash?

Some businesses allow selling on credit to make the payment process easier. Take for example, a phone provider. This provider may find it hard to collect payment perpetually every time someone makes a call. Instead, the provider will be periodically invoiced at the end of the month for the total amount of service used by the customer. Until this monthly invoice has been paid, the amount will be recorded in account receivables.

Allowing purchase on credit also encourages more sales. Customers tend to hold on to cash, but are more inclined to purchase on credit if possible.

Risks associated with Accounts Receivable

1. Uncollected debt – High A/R that goes uncollected for a long time is written off as bad debt. This situation occurs when customers who purchase on credit go bankrupt, or otherwise shirk the invoice without reason.
2. Cash flow deficiencies – A business needs cash flow for its operations. Selling on credit may boost revenue and income, but present no actual cash inflow. In the short-term this is acceptable, but in the long run can cause the company to run short on cash and have to take on other liabilities to fund its operations.

Measurement of Bad Debts in Accounts Receivable

There are two ways to account for balances in accounts receivable that are predicted to not be collected, which is also known as bad debt expense. To account for this expense, the percentage of sales method (income statement approach) or the aging of accounts method (balance sheet approach) can be used.

Percentage of Sales Method:

- This method uses the idea that some fraction of sales will be uncollectible. Therefore, to match expenses with revenues, the bad debts expense is a certain percentage of sales.
- This method focuses on the computation of the expense, hence, an income statement approach.
- For example, if 2% of sales is considered bad debt expense and sales were $100,000, the bad debt expense is $2,000.
- Bad debt expense is debited while the allowance for doubtful accounts (a contra AR account) is credited.

DR Bad Debt Expense: 2,000
CR Allowance for Doubtful Accounts (ADA): 2,000

Aging of Accounts Method:

- This method focuses on the value of the net accounts receivable.
- This method focuses more on the value of AR, therefore, being a balance sheet approach.
- This method assumes that the more days that go by, the higher the percentage of uncollectibility

Example:

Days Outstanding	Accounts Receivable Balance	Estimate % uncollectible	Estimated amount uncollectible
0 – 30	$210,100	0.2%	$420
31 – 60	84,500	0.6%	507
61 – 90	26,900	2.0%	538
>90	7,460	10.0%	746
Total			**$2,211**

Therefore, from this example, the following entry should be made:

DR Bad Debt Expense: 2,211
CR Allowance for Doubtful Accounts (ADA): 2,211

Inventory

Inventory is a current asset account found under the balance sheet. It is also often deemed the most illiquid of all current assets, thus excluding it from the numerator in the quick ratio calculation. Inventory will include the balance of all raw materials, work-in-progress and finished goods that a company has accumulated. There is an interplay between the inventory account and the cost of goods sold in the income statement.

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Balance Sheet										
Assets										
Cash	167,971	181,210	183,715	211,069	239,550	272,530	307,632	327,097	368,487	413,243
Accounts Receivable	5,100	5,904	6,567	7,117	7,539	7,807	8,158	8,485	8,782	9,045
Inventory	7,805	9,601	9,825	10,531	11,342	11,715	12,242	12,388	12,821	12,839
Property & Equipment	45,500	42,350	40,145	38,602	37,521	37,513	37,508	37,505	37,503	37,502
Total Assets	226,376	239,065	240,252	267,319	295,951	329,564	365,540	385,474	427,592	472,629
Liabilities										
Accounts Payable	3,902	4,800	4,912	5,265	5,671	5,938	6,205	6,279	6,498	6,507
Debt	50,000	50,000	30,000	30,000	30,000	30,000	30,000	10,000	10,000	10,000
Total Liabilities	53,902	54,800	34,912	35,265	35,671	35,938	36,205	16,279	16,498	16,507
Shareholder's Equity										
Equity Capital	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000
Retained Earnings	2,474	14,265	35,340	62,053	90,280	123,627	159,335	199,195	241,094	286,122
Shareholder's Equity	172,474	184,265	205,340	232,053	260,280	293,627	329,335	369,195	411,094	456,122
Total Liabilities & Shareholder's Equity	226,376	239,065	240,252	267,319	295,951	329,564	365,540	385,474	427,592	472,629

Determining the balance of Inventory

The ending balance of inventory depends on the amount of sales a company makes in each period. It also depends on the purchases made in the same period. The formula for inventory is as follows: **Ending Inventory = Beginning Inventory + Purchases – Cost of Goods Sold**

Higher sales (and thus higher cost of goods sold) leads to draining the inventory account. The conceptual explanation for this is that inventory (asset) is turned into revenue (equity).

Inventory and COGS

Ending inventory is also determined by the accounting method for Cost of Goods Sold. There are four main methods, namely FIFO, LIFO, Weighted-Average and Specific Identification. These all have certain criteria to be applied, and are prohibited under certain accounting standards, but all of them also vary in the value of cost of goods sold. In an inflationary period, LIFO will generate higher Cost of Goods Sold than the FIFO method. As such, using the LIFO method would generate a lower inventory balance than the FIFO method. This must be kept in mind when an analyst is analyzing this account.

Periodic and Perpetual Inventory Systems

A perpetual inventory system is one that directly keeps track of additions to and withdrawals from inventory. With this inventory system, an organization can determine the inventory quantity on hand and the cost of goods sold from its accounting records at any point in time. With more technology being implemented by companies, this method continues to increase in popularity because it can produce more information, at quicker rate. Even if a perpetual inventory system is used, organizations still need to conduct an inventory count because perpetual records may not always be correct. A periodic inventory system, on the other hand, does not keep a continuing record of inventory and cost of goods sold. On the financial statement date, the organization will conduct an inventory count to determine the ending inventory quantity. Using the values of beginning inventory and purchases, these values can be plugged into the inventory equation to calculate for COGS.

Related Metrics

The average inventory balance between two periods is needed to find inventory turnover. This is also needed to determine inventory turnover days. In these calculations, either net sales or cost of goods sold can be used as the numerator, although the latter is generally preferred as it is a more direct representation of the value of inventory. Accounts payable turnover requires the value for purchases as the numerator. This is indirectly linked to the inventory account, as purchases affect inventory as well.

PPE Accounting

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Background

Property, Plant, and Equipment, also referred to as PPE, are tangible items that are:

a. Held for use in the production or supply of goods or services; and
b. Are expected to be used during more than one accounting period

First and foremost, PPE is classified as a tangible asset. Assets can be separated into two kinds: tangible and intangible.

Tangible	Intangible
Possesses a physical presence	Does not have physical presence
Examples: • Land • Building • Equipment • Production facility	Examples: • Copyright • Patents • License • Trademark

The accounting treatment for tangible and intangible assets is very different. Here we focus on the accounting for tangible assets, mainly PPE.

Recognition and Measurement

PPE should be recognized by a company only if:

a. It is probable that future economic benefits associated with asset will flow to the entity; and
b. The cost of the asset can be measured reliably.

The initial costs of a PPE item may include:

a. Its purchase price, any import duties, non-refundable taxes, sales discounts, and rebates;
b. Any costs directly attributable to bringing the asset to the location and condition necessary for it to operational; and
c. An estimated value of the costs of dismantling and removing the asset and restoring the site on which it is located. This is commonly referred to as an asset retirement obligation (ARO).

The following table illustrates some costs that must be included in the capitalization of PPE:

Land	Building	Equipment
Land purchase cost	Building purchase cost	Equipment purchase cost
Legal fees	Construction permit	Installation costs
Property transfer tax	Architectural design costs	Testing costs
Demolition of old structures	Construction costs	Equipment specific training costs
Soil decontamination costs	Engineer survey costs	Transportation & delivery costs

Asset Retirement Obligations

ARO costs incurred by companies to restore a site to its original state and clean up for any damage may be quite significant and, thus, are capitalized to the cost of the asset. In order to determine the amount to be capitalized, companies must calculate the present value of the costs they expect to incur when the asset needs to be removed in the future. For example, if a company were to build a 10-year oil drilling platform that costs $10,000,000 with an estimated future dismantling cost of $450,000, the company needs to record a journal entry for the present value of the future dismantling costs. So, the company first records an ARO liability, which is capitalized to the asset and the liability is then amortized every year that the oil platform is used. Assuming a market interest rate of 5%, the present value of the dismantling costs would be:

$$PV = \frac{450,000}{(1.05)^{10}} = 276,261$$

Purchase of Oil Platform Journal Entry:
DR Oil Platform: 10,000,000
CR Cash: 10,000,000

ARO Journal Entry:
DR Oil Platform: 276,261
CR ARO Liability: 276,261

Finally, just like how the ARO liability is amortized every year, depreciation expense must also be recorded every year for the oil platform, depending on the method the company chooses to use. Learn more about the different methods of deprecation on the link below.

Repairs and Replacements of PPE

The nature of PPE assets is that some of these assets need to be regularly fixed or replaced to combat equipment failures or to adopt more sophisticated technology. For example, it is normal for companies to repair or replace old factories or automobiles with new assets when necessary. The general rule in accounting for repairs and replacements is that repairs and maintenance work is expensed while replacements of assets are capitalized. Repairs are easy to record, it is simply a debit to repair or maintenance expense and a credit to cash. Replacements, however, are a bit more complicated. For replacements, the old cost of the asset is derecognized from the company's books and the new cost of the replacement is recorded/recognized.

Bundled Purchases

Finally, it is fairly common to see companies purchasing a group of assets as a bundle in a single transaction. To account for these bundled transactions, accountants will use the proportional method, also known as the relative fair value method. This is a method that calculate each asset's apportioned cost based on the fair value of each of the individual assets in relation to the purchase price. For example, let's say that XYZ Company paid $80 million for a bundle purchase of land, building, and machinery and the fair value of each are $30 million, $50 million, and $20 million respectively. Using the following table, we can calculate the cost allocation for each individual asset.

Asset	Fair Value	% of Total Fair Value	Total Price	Cost Allocation
Land	$30 Million	30%	$80 Million	30% * $80M = $24M
Building	$50 Million	50%	$80 Million	50% * $80M = $40M
Machinery	$20 Million	20%	$80 Million	20% * $80M = $16M
Total	$100 Million	100%	$80 Million	$80 Million

Depreciation of Assets

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When a long-term asset is purchased, it is often capitalized instead of being expensed in the given period. This is because that asset will generally still be economically useful and generate returns beyond that period, so expensing it in each period will overstate the expense in that period and understate them in all future periods. To avoid this, depreciation expense is used to better match the expense of a long-term asset to the revenue it generates.

There are different methods used to calculate depreciation expense, and the type of depreciation accounting used is generally selected to match the nature of the equipment. For example, for vehicles that depreciate faster in the first few years, an accelerated depreciation method is often chosen.

Depreciation expense methods:

- Straight-line depreciation
- Declining Balance (Accelerated depreciation)
- Units-of-production

Straight-line depreciation

This is the most commonly used method of depreciation, and is also the easiest to calculate. This method simply takes an equal depreciation expense over the useful life of the asset. Periodic Depreciation Expense = (Fair Value – Residual Value) / Useful life of Asset. For example, Company A purchases a building for $50,000,000 to be used over 25 years with no residual value. Depreciation expense is $2,000,000, which is found by dividing $50,000,000 by 25.

Declining Balance

A declining balance depreciation is used when the asset depreciates faster in earlier years. As the name implies, the depreciation expense declines over time. To do this, the accountant picks a factor higher than one. In a straight line depreciation, the depreciation expense is found by multiplying the fair value with 1 / useful life. In this calculation, the factor is 1. In a declining balance, the factor can be 1.5, 2 or more. A 2 factor declining balance is known as a double-declining balance. Periodic Depreciation Expense = Beginning Value of Asset x Factor / Useful Life.The depreciation expense changers every year, because it is multiplied with the beginning value of the asset, which decreases over time due to accumulated depreciation. Note that residual value is ignored under declining balance.

For example, Company A has a vehicle worth $100,000, with a useful life of 5 years. They want to depreciate with the double-declining balance. In the first year, depreciation is expense is $40,000 ($100,000 x 2 / 5). In the next year, depreciation expense is $24,000 (($100,000 – $40,000) * 2 / 5).

Units-of-Production

Under this method, the depreciation expense per unit produced is determined by dividing the fair value less residual value of the asset with the useful life in units. This method gives a higher depreciation expense when production is high to match the usage of the equipment. This method is also most useful for production machinery.

Unit Depreciation Expense = (Fair Value – Residual Value) / Useful Life in Units.
Periodic Depreciation Expense = Unit Depreciation Expense x Units Produced

For example, Company A has a machine worth $100,000 with a residual value of $5,000. Production units is 95,000. Thus, unit depreciation expense is ($100,000 – $5,000) / 95,000 = $1. In a year, company A produces 10,000 units and incurs a depreciation expense of $10,000.

Revenue Recognition

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What is the revenue recognition principle?

The revenue recognition principle dictates the process and timing of which revenue is recorded and recognized an item in the financial statements. Theoretically, there are multiple points in time at which revenue could be recognized by companies, and generally speaking, as revenue is recognized earlier, it is said to be more valuable to the company yet a risk to reliability.

In accounting, revenue recognition is one of the areas that is most susceptible to manipulation and bias. In fact, it is estimated that a significant portion of all accounting fraud stems from revenue recognition issues given the amount of judgment involved.

Revenue Recognition criteria

According to IFRS standards, all of the following five conditions must be met for a company to recognize revenue:

- There is a transfer of significant risks and rewards associated with ownership.
- There is a loss of continuing managerial involvement or control to the degree usually associated with ownership.
- The amount of revenue inflow can be measured reliably.
- It is probable that economic benefits will flow to the seller.
- The costs incurred or the cost to be incurred can be measured reliably.

Revenue recognition for the sale of goods

For the sale of goods, most of the time, revenue is recognized upon delivery. This is because, at the time of delivery, all the five criteria are met. An example of this may include Whole Foods recognizing revenue upon the sale of groceries to customers.

Revenue recognition at delivery will look like this:
DR Cash or Accounts Receivable
CR Revenue

When revenue is recognized, according to the matching principle, expenses must also be considered for:
DR Cost of Goods Sold
CR Inventory

Revenue Recognition before & after delivery

For the sale of goods, IFRS standards do not permit revenue recognition prior to delivery. IFRS does, however, permit revenue recognition after delivery.

There are situations when there are uncertainties regarding costs associated with future costs, violating the fifth criteria for revenue recognition outlined above.

For example, if a company cannot reliably estimate the future warranty costs on a specific product when this fifth criteria is met, at that point, revenue may be recognized.

Other reasons for revenue recognition after delivery include situations where the amount of revenue cannot be reasonably determined (i.e. contingent sales), inestimable returns, unassured collectability of accounts receivable, and risks of ownership remaining with the seller (i.e. consignment sales).

Journal entries for the revenue recognition principle
Typical journal entries would look like:

- DR Cash
- CR Deferred Revenue
- DR Deferred COGS
- CR Inventory

Instead of crediting revenue and debiting COGS, deferred revenue and deferred COGS are used. When revenue can be recognized these deferred accounts are then closed to actual revenue and COGS:

- DR Deferred Revenue
- CR Revenue
- DR COGS
- CR Deferred COGS

Installment Sales Method and the revenue recognition principle
Installment sales are also quite common where products are sold on a deferred payment plan where payments are received in the future after the goods have already been delivered to the customer. Under this method, revenue can only be recognized when the actual cash is collected from the customer.

Example:
In May, XYZ Company sold $300,000 worth of goods to customers on credit. In June, $90,000 was collected and in September, $210,000 was collected. The COGS is 80%. Using the installment sales method, the journal entries would be:

May:

DR Instalment Accounts Receivable	300,000
CR Deferred Revenue	300,000
DR Deferred COGS	240,000
CR Inventory	240,000

June:
DR Cash: 90,000
CR Instalment Accounts Receivable: 90,000
DR Deferred Revenue: 90,000
CR Sales Revenue: 90,000
DR COGS: 72,000
CR Deferred COGS: 72,000

September:
DR Cash: 210,000
CR Instalment Accounts Receivable: 210,000
DR Deferred Revenue: 210,000
CR Sales Revenue: 210,000
DR COGS: 168,000
CR Deferred COGS: 168,000

Revenue Recognition principle for the provision of services

One important area of the provision of services involves the accounting treatment of construction contracts. These are contracts dedicated to the construction of an asset or a combination of assets, such as large ships, office buildings, and others that usually span multiple years. In recognizing revenue for services that last for long periods of time, IFRS states that revenue should be recognized based on the progress towards completion, also referred to as the percentage of completion method.

These contracts are of two kinds: fixed-price contracts and cost-plus contracts. In fixed-price contracts, the contractor/builder agrees to a price before construction actually begins. Thus, all the risks are imposed on the contractor. In cost-plus contracts, the price depends on the amount actually spent on the project plus a profit margin. For companies reporting under ASPE, the completed-contract method may also be used. Different from the percentage of completion method, the completed contract method only allows revenue recognition when the contract is completed.

Liabilities – Current & Non-Current

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According to IFRS, a liability is a present obligation of an organization arising from past events, and the settlement of which is expected to result in an outflow of economic benefits. In order to be considered a liability, all three of these criteria must be met. Current liabilities are obligations that are expected to be settled within one year of the balance sheet date or the business' normal operational cycle.

Trade Payables

Trade payables are obligations to pay for goods or services received. The most common trade payable account is accounts payable. Due to processing delays, not all invoices for accounts payable will have been received by the company's year end. In these situations, the company must record an accrued liability for those invoices not yet received but owed by the organization. Other trade payable accounts include sales tax payable, income tax payable, dividends payable, and royalty fees payable.

Gross vs Net Method of Accounts Payable

Sometimes, suppliers offer discounts to encourage early payments from purchasers. For example, a common sale term is 2/10, net 30. This means that the buyer can be entitled to a 2% discount if they pay within 10 days (2/10). If the discount is not taken, they have 30 days to pay the full amount of the invoice. In these situations, the buyer may record this under either a gross or net method. Most companies predominantly use the gross method because it is simpler and more practical. The net method in theory is more appropriate, however, because the 2% is actually the cost of financing the purchase for 20 days.

Gross Method

Purchase Date
DR Inventory: 100,000
CR Accounts Payable: 100,000

If discount taken
DR Accounts Payable: 100,000
CR Cash: 98,000
CR Inventor: 2,000

If discount not taken
DR Accounts Payable: 100,000
CR Cash: 100,000

Net Method

Purchase Date
DR Inventory: 98,000
CR Accounts Payable: 98,000

If discount taken
DR Accounts Payable: 98,000
CR Cash: 98,000

If discount not taken
DR Accounts Payable: 98,000
DR Purchase discounts lost (expense): 2,000
CR Cash: 100,000

Warranties

When companies issue warranties, it is a guarantee that its products will be free from defects for a specified period of time. When manufacturers offer warranties, the warranty obligation is recorded as a provision for warranty payable or a warranty liability account. Once these warranty obligations have been performed, they are reduced in the liability account.

Example

In 2017, XYZ Company sold $100 million in cars and provides a 3-year warranty on each car. The company estimates that 4% of total sales will equal to warranty obligations. In 2018, the company met $900,000 of its warranty obligations or $500,000 for parts and $400,000 for labor.

2017

DR Warranty Expense: 4,000,000
CR Warranty Payable: 4,000,000

2018

DR Warranty Payable: 900,000
CR Inventory: 500,000
CR Wages Payable: 400,000

Unearned Revenues

Unearned revenues, also referred to as deferred revenues, are non-financial obligations that arise from the collection of assets that have not yet been earned. For example, if a company were to receive cash before their services have actually been provided, these would be a form of unearned revenue. Once the goods are delivered/service is provided, the revenue can be recognized.

Example Journal Entries:

To recognize deferred revenue:
DR Cash: 1,000
CR Deferred Revenue: 1,000

When services have been provided:
DR Deferred Revenue: 1,000
CR Revenue: 1,000

Interest Payable

Interest Payable is a liability account shown on a company's statement of financial position and represents the amount of interest expense that has been incurred to date, but has not been paid as of the company's date on the balance sheet. For example, if an interest of $1,000 on a note payable has been incurred but is paid in the next fiscal year, for the current year ended December 31, the company would record the following journal entry:

DR Interest Expense: 1,000
CR Interest Payable: 1,000

Interest payable amounts are usually current liabilities and may also be referred to as accrued interest. These accounts can be seen in multiple scenarios, whether it be for bond instruments, lease agreements between two parties, or any note payable liabilities.

Interest Payable in Bonds

Interest payable accounts are commonly seen in bond instruments because a company's year end may not coincide with the payment dates. For example, let's say that XYZ Company issued 12% bonds on January 1, 2017 for $860,652 that have a maturity value of $800,000. The yield is 10%, the bond matures on January 1, 2022 and interest is paid on January 1st of each year.

On January 1, 2017:
DR Cash: 860,653
CR Bond Payable: 860,653

The issuance of the bond is recorded in the bonds payable account. The $860,653 value means that this is a premium bond and the premium will be amortized over its life.

On December 31, 2017:
DR Interest Expense: 86,065
DR Bond Payable: 9,935
CR Interest Payable: 96,000

The interest expense is the bond payable account multiplied by the interest rate. The interest payable is a temporary account that will be used because payments are due on January 1st of each year. And finally, there is a decrease in the bond payable account that represents the amortization of the premium.

Therefore, on the balance sheet, the accounts would look like:

Bond Payable: $850,718
Interest Payable: $96,000

On January 1, 2018:
DR Interest Payable: 96,000
CR Cash: 96,000

Finally, the interest payable account is removed because cash is paid out. This payment represents the coupon payment that is part of the bond.

Interest Payable in Note Payables

Interest payable accounts also play a role in note payable situations. For example, let's say that XYZ Company purchases a computer on January 1, 2016, paying $30,000 upfront in cash and a $75,000 note due on January 1, 2019. The interest rate is 10% and is paid on January 1st of each year.

On January 1, 2016:
DR Equipment 86,459
CR Cash: 30,000
CR Note Payable: 56,349

The note payable is $56,349, which equals to the present value of the $75,000 due on Dec 31, 2019. The present value can be calculated using Excel or a financial calculator.

On December 31, 2016:
DR Interest Expense: 5,635
CR Interest Payable: 5,635

The interest for the 2016 year has been incurred but is paid the following year on January 1, 2017 so it is recorded as an interest payable liability account in 2016.

On January 1, 2017:
DR Interest Payable: 5,365
CR Cash: 5,365

The interest payable account is then reduced to zero and paid out in cash.

Shareholder's Equity

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Stockholders Equity (also known as Shareholders Equity) is an account on a company's balance sheet that consists of share capital plus retained earnings. It also represents the residual value of assets minus liabilities. By rearranging the original accounting equation, Assets = Liabilities + Stockholders Equity, it can also be expressed as: Stockholders Equity = Assets – Liabilities.

Stockholders' Equity

Assets		Contributed Capital
-	or	+
Liabilities		Retained Earnings

Stockholders Equity provides highly useful information when looking at financial statements. In events of liquidation, equity holders are generally later in line than debt holders to receive their payments. This means that bondholders are paid before equity holders. Therefore, debt holders are not very interested in the specifics of equity beyond the general amount of equity to determine overall solvency. Equity holders, however, are concerned with both liabilities and equity accounts because equity holders can only be paid after bondholders have been paid.

Components of Stockholders Equity

Equity can be separated into two major components:

1. Contributed Capital – Amounts received by the reporting entity from transactions with its owners are referred to as contributed capital
2. Retained Earnings – Amounts earned through income are referred to as Retained Earnings and Accumulated Other Comprehensive Income (for IFRS only). For more on Retained Earnings, please click the link below.

Contributed Capital

Contributed Capital (share capital) refers to amounts received by the reporting company from transactions with shareholders. Companies can generally issue either common shares or preferred shares. Common shares represent residual ownership in a company and in the event of liquidation and dividend payments, common shares can only receive payments after preferred shareholders have been paid out first. If a company were to issue 10,000 common shares for $50 each, the contributed capital would be equal to $500,000. The journal entry would be:

DR Cash: 500,000
CR Common Shares: 500,000

In addition to shares being sold for cash as in the previous example, it is also common to see companies selling shares on a subscription basis. In these situations, the buyer usually makes a downpayment in purchasing a certain number of shares and agrees to pay the remaining amount at a later date. For example, if XYZ Company sells 10,000 common shares for $10 each on a subscription basis that requires the buyer to pay $3 per share when the contract is signed and the remaining balance 2 months later, the journal entry would look as follows:

DR Cash: 30,000
DR Share Subscriptions Receivable: 70,000
CR Common shares subscribed: 100,000

The share subscriptions receivable functions similar to the accounts receivable (A/R) account. Once the receivable payment is paid in full, the common shares subscribed account is closed and the shares are issued to the purchaser.

DR Cash: 70,000
CR Share Subscriptions Receivable: 70,000
DR Common shares subscribed: 100,000
CR Common Shares: 100,000

More Share Terminology

A few more terms are important in accounting for share-related transactions. The number of shares authorized is the number of shares that the corporation is allowed to issue according to the company's articles of incorporation. The number of shares issued refers to the number of shares issued by the corporation and can be owned by either outsiders or by the corporation itself. Finally, the number of shares outstanding refers to shares that are owned only by investors while shares owned by the issuing corporation are called treasury shares. The relationship can be visualized as follows:

Shares Authorized ≥ Shares Issued ≥ Shares Outstanding

Where the difference between the shares issued and the shares outstanding is equal to the number of treasury shares.

Retained Earnings

Retained Earnings (RE) are a business' profits that are not distributed as dividends to stockholders (shareholders) but instead are allocated for investment back into the business. Retained Earnings can be used for funding working capital, fixed asset purchases or debt servicing, among other things. To calculate retained earnings, the beginning retained earning balance is added to the net income or loss and then dividend payouts are subtracted. A summary report called a statement of retained earnings is also maintained, outlining the changes in retained earnings for a specific period.

The Retained Earnings formula is as follows:

Retained Earnings = Beginning Period Retained Earnings + Net Income/Loss – Cash Dividends – Stock Dividends

Dividend Payments

Dividend payments by companies to its stockholders (shareholders) are completely discretionary. Companies have no obligation whatsoever to pay out dividends until they have been formally declared by the board. There are four key dates in terms of dividend payments, two of which require specific accounting treatments in terms of journal entries.

There are various kinds of dividends that companies may compensate its shareholders, of which cash and stock are the most prevalent.

Date	Explanation	Journal Entry
Declaration Date	Once the board declares a dividend, the company records an obligation to pay through a dividend payable account	DR Retained Earnings CR Dividends Payable
Ex-dividend Date	The date on which a share trades without the right to receive a dividend that has been declared. Prior to the ex-dividend date, an investor would be entitled to dividends.	No Journal Entry
Date of Record	The date when the company compiles the list of shareholders to receive dividends	No Journal Entry
Payment Date	When the cash is actually paid to the shareholder	DR Dividends Payable CR Cash

Applications in personal investing

With all these debt and equity instruments in mind, we can apply this knowledge to our own personal investment decisions. Although many investment decisions depend on the level of risk we want to undertake, we cannot neglect all the key components covered above. Bonds are contractual liabilities where annual payments are guaranteed unless the issuer defaults, while dividend payments from owning shares are discretionary and not fixed. In terms of payment and liquidation order, bonds are ahead of preferred shareholders, which are ahead of common shareholders. Therefore, from an investor's perspective, debt is the least risky and for companies, it is the cheapest source of financing because interest payments are deductible for tax purposes. However, debt is also the riskiest form of financing for companies because the corporation must uphold the contract with bondholders to make the regular interest payments regardless of economic situation.

PART 03

Financial Statements

01

02

03

Balance Sheet

The balance sheet is one of the three fundamental financial statements. These statements are key to both financial modeling and accounting. The balance sheet displays the company's total assets, and how these assets are financed, which are through either debt or equity. The balance sheet is also related to the fundamental equation:

Assets = Liabilities + Equity

As such, the balance sheet is divided into two sides. The left side of the balance sheet outlines all a company's assets. On the right side, the balance sheet outlines the company's liabilities and equities. On either side, the main line items are generally classed by liquidity. More liquid accounts like Inventory, Cash and Trades Payables are placed before illiquid accounts such as Plant, Property and Equipment and Long Term Debt. The asset and liabilities are also separated by current asset/ liabilities and long-term assets/liabilities.

What is its use in financial modeling?

This statement is a great way to analyze a company's financial position. An analyst can generally use the balance sheet to calculate a lot of financial ratios that can determine how well a company is performing, how liquid or solvent a company is, and how efficient it is.
Changes in balance sheet accounts are also used to calculate cash flow in the cash flow statement. For example, a positive change in plant, property, and equipment is equal to capital expenditure minus depreciation expense. If depreciation expense is known, capital expenditure can be calculated to include as a cash outflow under cash flow from investing in the cash flow statement.

How to set up the balance sheet?

Balance sheets, like all financial statements, will have minor differences between organizations. However, there are several "buckets" and line items that are almost always included in common balance sheets. We briefly go through commonly found line items under Current Assets, Long-Term Assets, Current Liabilities, Long-Term Liabilities and Equity.

	A	B	C	D	E	F	G	H	I	J	K	L
1	© Corporate Finance Institute. All rights reserved.			Historical Results					Forecast Period			
2	**Online Company Inc Model**			**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
77												
78	**Balance Sheet**											
79												
80	**Assets**											
81	Cash			67,971	81,210	83,715	111,069	139,550	159,474	182,573	190,511	224,399
82	Accounts Receivable			5,100	5,904	6,567	7,117	7,539	8,179	8,997	9,896	10,758
83	Inventory			7,805	9,601	9,825	10,531	11,342	15,267	19,343	24,191	26,894
84	**Current Assets**			**80,876**	**96,715**	**100,107**	**128,717**	**158,430**	**182,920**	**210,913**	**224,599**	**262,051**
85	Property & Equipment			45,500	42,350	40,145	38,602	37,521	45,017	51,013	55,811	59,649
86	Goodwill											
87	**Total Assets**			**126,376**	**139,065**	**140,252**	**167,319**	**195,951**	**227,937**	**261,927**	**280,410**	**321,700**
88												
89	**Liabilities**											
90	Short Term Debt											
91	Accounts Payable			3,902	4,800	4,912	5,265	5,671	7,061	7,952	8,951	9,951
92	**Current Liabilities**			**3,902**	**4,800**	**4,912**	**5,265**	**5,671**	**7,061**	**7,952**	**8,951**	**9,951**
93	Long Term Debt			50,000	50,000	30,000	30,000	30,000	30,000	30,000	10,000	10,000
94	**Total Liabilities**			**53,902**	**54,800**	**34,912**	**35,265**	**35,671**	**37,061**	**37,952**	**18,951**	**19,951**
95	**Shareholder's Equity**											
96	Equity Capital			70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
97	Retained Earnings			2,474	14,265	35,340	62,053	90,280	120,876	153,974	191,459	231,749
98	**Shareholder's Equity**			**72,474**	**84,265**	**105,340**	**132,053**	**160,280**	**190,876**	**223,974**	**261,459**	**301,749**
99	**Total Liabilities & Shareholder's Equity**			**126,376**	**139,065**	**140,252**	**167,319**	**195,951**	**227,937**	**261,927**	**280,410**	**321,700**
100												
101	*Check*			*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*

Income Statement

What is the income statement?

The income statement is one of three core statements both in financial modelling and accounting. The statement displays the company's revenue, costs, gross profit, selling and administrative expenses, other expenses and income, taxes paid and net profit in a coherent and logical manner.

The statement is divided into periods that logically follow the company's operations. The most common periodic division would be monthly, although certain companies may use quarterly division or a thirteen-month cycle. Income statements will also often aggregate the periodic values into a full-year total.

	A	B	C	E	F	G	H
1	© Corporate Finance Institute. All rights reserved.			Historical Results			
2	**Brick 'n' Mortar Co Model**			**2014**	**2015**	**2016**	**2017**
60							
61	**Income Statement**						
62							
63	**Revenue**			**66,132**	**73,558**	**79,716**	**84,438**
64	Cost of Goods Sold (COGS)			26,884	27,511	29,488	31,760
65	**Gross Profit**			**39,248**	**46,047**	**50,228**	**52,678**
66	**Expenses**						
67	Marketing, Advertising & Promotion			12,689	13,369	12,882	14,138
68	General & Administrative			5,670	5,649	6,172	6,391
69	Depreciation & Amortization			10,165	9,635	9,265	9,006
70	Interest			1,400	840	840	840
71	**Total Expenses**			**29,924**	**29,494**	**29,159**	**30,375**
72	**Earnings Before Tax**			**9,324**	**16,554**	**21,069**	**22,303**
73							
74	Taxes			4,858	8,483	10,908	11,598
75	**Net Earnings**			**4,466**	**8,071**	**10,161**	**10,706**
76							

What is its use in financial modeling?

This statement is a great place to begin the financial model, as it requires the least amount of information from the balance sheet and cash flow statement. Thus, in terms of information, the income statement is a predecessor to the other two core statements.

How to set up the income statement?

The income statement may have minor variations between different companies, as expenses and income will be dependent on the type of operations or business conducted. However, there are several generic line items that are commonly seen in the income statement.

Sales Revenue

The company's revenue from sales or service is displayed at the very top of the statement. This value will be gross of the costs associated in creating the goods sold, or in providing the service.

Cost of Goods Sold (COGS)

This line item aggregates the direct costs associated with achieving the revenue. Fixed costs and overhead are excluded.

Gross Profit

Gross profit is found by subtracting COGS from Sales Revenue.

SG&A Expenses

The selling, general and administrative section will contain all other indirect costs associated with running the business. This includes salaries of management, advertising expenses, travel expenses, and sometimes depreciation and amortization, among others. Entities may, however, elect to place depreciation and amortization in its own section.

EBITDA

While not present in all income statements, Earnings before Interest, Tax, Depreciation and Amortization is found by subtracting SG&A expenses (excl. amortization and depreciation) from gross profit.

EBIT

Similarly, while not present in all income statements, Earnings before Interest and Tax is found by subtracting depreciation and amortization from EBITDA.

Interest Expense

It is common for companies to split out interest expense and interest income as a separate line item in the income statement. This is done to be able to reconcile the difference between EBIT and EBT. Interest expense is determined through the debt schedule.

EBT or Pretax Income

Earnings before tax or pretax income is calculated by subtracting interest expense from EBIT. This is the final subtotal before finding net income.

Income Taxes

Income taxes refer to relevant taxes to the pre-tax income.

Net Income

After deducting income taxes from pre-tax income, the remaining amount is the net income. This is the amount that flows into retained earnings, after deductions for any cash or stock dividends.

AMAZON.COM, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in millions, except per share data)

	Year Ended December 31,		
	2014	2015	2016
Net product sales	$ 70,080	$ 79,268	$ 94,665
Net service sales	18,908	27,738	41,322
Total net sales	88,988	107,006	135,987
Operating expenses:			
Cost of sales	62,752	71,651	88,265
Fulfillment	10,766	13,410	17,619
Marketing	4,332	5,254	7,233
Technology and content	9,275	12,540	16,085
General and administrative	1,552	1,747	2,432
Other operating expense, net	133	171	167
Total operating expenses	88,810	104,773	131,801
Operating income	178	2,233	4,186
Interest income	39	50	100
Interest expense	(210)	(459)	(484)
Other income (expense), net	(118)	(256)	90
Total non-operating income (expense)	(289)	(665)	(294)
Income (loss) before income taxes	(111)	1,568	3,892
Provision for income taxes	(167)	(950)	(1,425)
Equity-method investment activity, net of tax	37	(22)	(96)
Net income (loss)	$ (241)	$ 596	$ 2,371
Basic earnings per share	$ (0.52)	$ 1.28	$ 5.01
Diluted earnings per share	$ (0.52)	$ 1.25	$ 4.90
Weighted-average shares used in computation of earnings per share:			
Basic	462	467	474
Diluted	462	477	484

Statement of Cash Flows

The Statement of Cash Flows is one of the key financial statements that report the cash generated and spent during a specific period of time. Therefore, similar to the income statement, these statements cover a certain period, i.e. for the year ended December 31, 2017. The statement of cash flows is divided into three main sections:

- Operating Section: The principal revenue-generating activities of an organization and other activities that are not investing or financing; any cash flows from current assets and current liabilities
- Investing Section: Any cash flows from the acquisition and disposal of long-term assets and other investments not included in cash equivalents
- Financing Section: Any cash flows that result in changes in the size and composition of the contributed equity and borrowings of the entity (i.e. bonds, stock, cash dividends)

How to Prepare a Statement of Cash Flows

The operating section of the statement of cash flows can be shown either through the direct method or the indirect method. For either method, the investing and financing sections are identical and the only difference is in the operating section. The direct method is a method that shows the major classes of gross cash receipts and gross cash payments. The indirect method, on the other hand, starts with net income and adjusts the profit/loss by the effects of the transactions. In the end, cash flows from the operating section will give the same result whether under the direct or indirect approach, however, the presentation will differ. The International Accounting Standards Board (IASB) favors the direct method of reporting, because it provides more useful information that the indirect method. However, it is believed that greater than 90% of companies use the indirect method.

Direct vs Indirect Method of Presentation in Operating Section

Direct Method

Operating Activities	
Cash received from customers	$800
Cash paid to suppliers	(150)
Employee compensations	(200)
Other operating expenses paid	(250)
Net cash from operating activities	200
Investing Activities	
Sale of land	200
Purchase of equipment	(300)
Net cash from investing activities	(100)
Financing Activities	
Common share dividends	(200)
Payment on long term debt	(300)
Net cash from financing activities	(500)
Beginning Cash Balance	X
Ending Cash Balance	Y

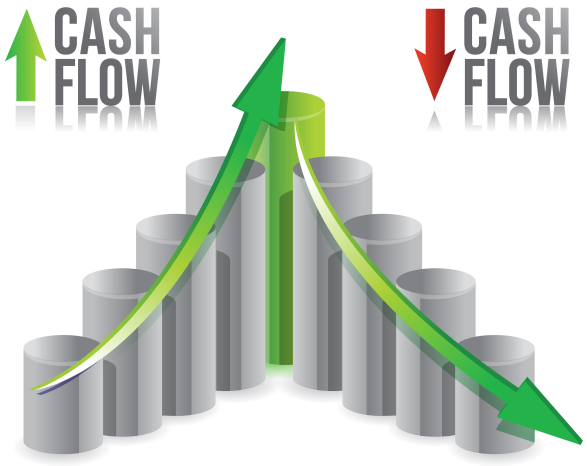
Indirect Method

Operating Activities	
Net Income	$50,000
Add: Depreciation expense	$10,000
Decrease in AR	2,000
Increase in inventory	3,000
Decrease in prepaid expense	4,000
Increase in accounts payable	5,000
Net Cash provided by operating activities	$XXX

Investing Activities	
Sale of land	200
Purchase of equipment	(300)
Net cash from investing activities	(100)
Financing Activities	
Common share dividends	(200)
Payment on long term debt	(300)
Net cash from financing activities	(500)
Beginning Cash Balance	X
Ending Cash Balance	Y

What Can the Statement of Cash Flows Tell Us?

- Cash from operating activities can be compared to the company's net income to determine the quality of earnings. If cash from operating activities is higher than net income, earnings are said to be "high quality."
- This statement is useful to investors because under the notion that cash is king, it allows investors to get an overall sense of the cash inflows and outflows of the company, whether these numbers are positive, and achieve a general understanding of the company's overall performance.



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