

# Accounting Equation

## The Accounting Equation

- The fundamental accounting equation is:
  - **Assets = Liabilities + Owner's Equity**
- This is said to describe how the assets of a business are funded. It is either funded through money borrowed (liabilities) or by the owners (owners Equity). The **Balance Sheet** is presented in this format. Key definitions:
  - **Assets** (owned): 'Future economic benefits controlled by the entity as a result of past transactions or other past events'.
  - **Liabilities** (owed): 'Future sacrifices of future economic benefits that the entity is presently obliged to make to other entities as a result of past transactions or other past events'.
  - **Owner's Equity**: 'The residual interest in the assets of the entity after deduction of its liabilities'. This difference between assets and liabilities represents the owners interest in the business. It is often referred to as 'Net Assets'.
- The items in the balance sheet [assets, liabilities, and owner's equity (capital account)] are *permanent accounts*.
- The accounting equation can also be represented by:
  - Owner's Equity = Assets – Liabilities.
    - This means that the equity the owner has in the business is represented by what is owned (assets) *less* what is owed (liabilities).
- We also need to know how the owner's equity came about.
  - Owners could have invested money into the business (capital introduced) or the business could make a profit (revenue *less* expenses).
  - Or, owner's equity could fall if the owner drew money out of the business (drawings).
  - This part of the accounting equation is:
    - Owner's equity/Capital account (closing balance) = Owner's equity/Capital account opening balance + Capital introduced – Drawings + Revenue – Expenses.
      - $OE\ CB = OE\ OB + CI - D + R - E.$
- The owner's equity capital account is the *permanent account* and the other accounts – capital introduced, drawings, revenue and expenses are *temporary accounts*.
  - This means these accounts are emptied at the end of each year, by the process 'closing'.

## Balance Sheet

- The **balance sheet** reports the financial position of a business entity at a specific point in time.
- The balance sheet is composed of: assets, liabilities, and owner's equity.
  - This is represented as  $A = L + OE$  ; and  $OE = A - L$ .
- Example: Purchase of a \$2000 stereo. You have \$1,000 of personal funds and borrow \$1,000 to make the purchase.
  - The accounting equation is preserved as  $A = L + OE$ . The left-hand side of the equation indicates what you own or control (a stereo) and the right hand side represents how it was acquired (ie. a combination of a loan (L) and your own funds (OE)).

Balance Sheet			
<b>Assets</b>	<b>\$</b>	<b>Liabilities</b>	<b>\$</b>
Stereo	2,000	Loan	1,000
		<b>Owner's Equity</b>	
		Capital - You	<u>1,000</u>
	<b><u>\$2,000</u></b>		<b><u>\$2,000</u></b>

- Key balance sheet definitions:
  - A **current asset** is any asset that is reasonably expected to be converted to cash or consumed within one year of the balance sheet date.
    - E.g. cash, accounts receivable, inventories, prepayments, accrued revenue, etc.
  - **Non-current assets** are the resources that are used in a company's operation for more than one year and are not intended for sale.
    - E.g. property, plant and equipment, intangible assets and deferred tax assets.
  - Current assets + Non-current assets = Total assets.
  - A **current liability** is an obligation that is reasonably expected to be satisfied within one year.
    - E.g. accounts payable, salaries payable, bank overdraft, unearned revenue, etc.
  - A **non-current liability** is an obligation that is not expected to be satisfied within one year. E.g. long-term loan.
  - Current liabilities + Non-current liabilities = Total liabilities.
  - **Retained earnings** is the amount of equity a company generates by being profitable and retaining those profits (revenue – expenses).
  - **Issued capital/capital introduced** is the amount of equity a company generates through the sale/issue of shares to investors.

## Income Statement

- The **income statement** is used to arrive at the net profit or loss for a specific time period.
- The difference between revenue and expenses represents profit/loss, any part that is retained by the business becomes part of *owner's equity*.
- **Revenues** are inflows or other enhancements, or savings in outflows, of future economic benefits in the form of increases in assets or reductions in liabilities of the entity, other than those relating to contributions by owners, that result in an increase in equity.
- **Expenses** are consumptions or losses of future economic benefits in the form of reductions in assets or increases in liabilities of the entity, other than those relating to distributions to owners, that result in a decrease in equity during the reporting period.
- Basic outline of income statement: Revenue – Expenses = Net Profit
- Detailed outline: Sales revenue – Cost of goods sold (opening balance + purchases – closing balance) = Gross profit. Gross profit – Operating expenses = Net profit before tax.

## Statement of Changes in Equity

- This statement represents the owner's interest in the business. It is a record of personal funds invested as well as any profits retained in the business. It also identifies any withdrawals of assets (eg cash) which the owner may have made for personal use.
- The format of a statement of changes in equity:
  - Owners capital (opening balance) + Profit (revenue – expense) + Capital introduced – Drawings = Owners capital (closing balance).

**Income Statement**  
Income - Expenses =  
Profit (or loss) transfer  
amount to →

**Statement of Changes in Equity**  
Beg Equity Balance +  
Profit\* - drawings =  
End Equity Balance  
transfer amount to →

**Balance Sheet (end of year)**  
Assets - Liabilities =  
End Equity Balance

## Accounting Principles

- There are seven accounting principles (CAMP + PEG):
  - **Cost** - items are recorded at their historical cost
  - **Accounting period** - Accounting information is reported for a specific period (typically one year)

- **Matching** - Inputs must be matched to outputs. This means we need to record expenses (inputs) in the same period as the revenues (outputs) that they helped create.
- **Profit recognition** (also known as Revenue Recognition and this is the better descriptor) - Revenue must be recognised in the period in which it was earned. This is very tightly connected to the matching principle.
- **Prudence principle (Conservatism)** – record revenue only when it is certain and expenses when they are probable
- **Entity concept** – reports are prepared for a specific entity
- **Going concern** – accounts are produced on the basis that the entity will continue into the future. If an entity is not likely to continue into the future then a different basis will be needed

## Debits and Credits and Normal Balance

- All accounts can be characterised in a T-account, such as below.

Account name	
Debit side	Credit side

- The term **debit** simply means left side of an account, while the term **credit** simply means right side of an account
- When a transaction affects an account balance, the amount of the transaction is entered on the account's debit side or credit side, depending on the transaction.
- Normal balance rules:

To <i>increase</i> an account balance.	Record transaction on the same side as the normal balance.
To <i>decrease</i> an account balance.	Record transaction on the opposite side of the normal balance.

- **Asset accounts** have normal *debit* (Dr.) balances.
  - Increases in assets are recorded on the debit (left) side while decreases are record on the credit (Cr.) (right) side.
  - For example, if you paid \$2000 for a computer, the entry would be:
    - Dr Computer \$2000
      - Cr Cash at Bank \$2000
  - So, the asset of computer has increased by \$2000 and the asset of Cash at bank has decreased by \$2000.
- **Liability accounts** have normal *credit* (Cr.) balances.
  - Increases in liabilities are recorded on the credit (right) side while decreases are record on the debit (left) side.
  - For example, if you took out a bank loan of \$1000, the entry would be:
    - Dr Cash at bank \$1000
      - Cr Bank loan \$1000
- **Owner's equity accounts** have normal *credit* (Cr.) balances.
  - Increases in liabilities are recorded on the credit (right) side while decreases are record on the debit (left) side.
  - For example, if the owner invested \$1000 into the business, the entry would be:
    - Dr Cash at Bank \$1000
      - Cr Capital Introduced \$1000

Assets	=	Liabilities	+	Owners' equity						
ASSETS	=	LIABILITIES	+	OWNERS' CAPITAL	-	OWNERS' DRAWINGS	+	REVENUES	-	EXPENSES
Dr.   Cr.		Dr.   Cr.		Dr.   Cr.		Dr.   Cr.		Dr.   Cr.		Dr.   Cr.
+   -		-   +		-   +		+   -		-   +		+   -

	Increase	Decrease
Asset	Debit	Credit
Liability	Credit	Debit
Income/Revenue	Credit	Debit
Expense	Debit	Credit
Equity/Capital	Credit	Debit