EFR summary

Intermediate Accounting, FEB12007X

2025-2026

Lectures 1 to 4

Weeks 1 to 4

Deloitte.

DeNederlandscheBank
EUROSYSTEEM

Details

Subject: Intermediate Accounting IBEB 2025-2026

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Date of publication: 28.05.2026

Intermediate accounting – IBEB – FA Lecture 1 - Intro & Recap lecture

Introduction and basic concepts

Accounting is the language of business. There are three central steps in the accounting process:

1. **To account** for something = acknowledge existence and describe it (identify economic transactions / events).
2. **To count** = to measure, to quantify (classify and accumulate transactions / events).
3. **To be accountable** = to explain what one has done and to take responsibility for consequences (communicate / report)

Accounting has two key missions:

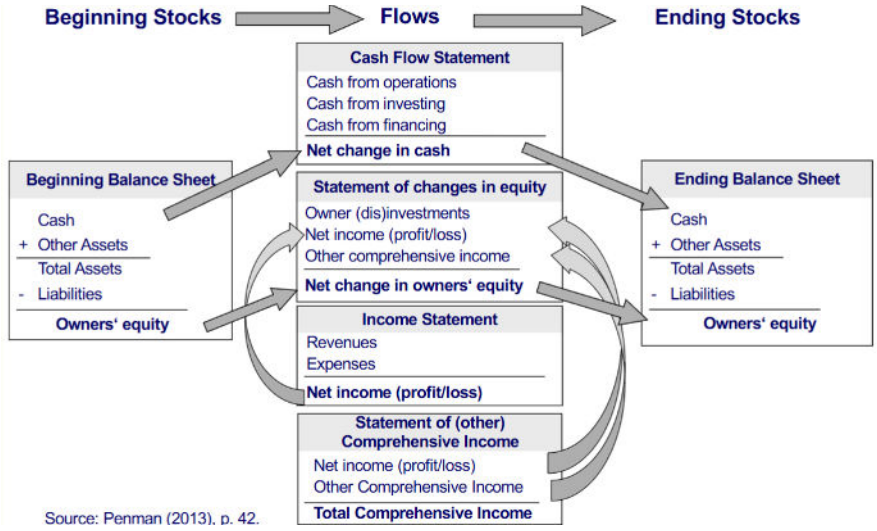
- **Facilitate value creation by** supporting decision-making (internal for daily operations and strategy; external for financing).
- **Facilitate stewardship** by measuring and reporting the amount of value created (holding management responsible).
- Helps solve the **"Information" and "Agency" problems** caused by the separation of ownership and control
    - Such as adverse selection & Moral hazard

Two Types of Accounting

- **Management accounting**: Directed to internal use. Used for cost accounting, budgeting, and performance evaluation.
- **Financial accounting**: Directed to external use. Regulated externally (e.g., by auditors), relies on historical/aggregated data, and is periodic (quarterly, yearly).

Types of financial statements

1. **Balance sheet**: snapshot of a firm's assets and liabilities at a given point in time
2. **Income statement**: statement on the firm's revenue and expenses over time
3. **Cash flow statement**: statement on how the cash account has changed between two dates
4. **Shareholders' equity statement**



Accrual-based accounting

In the accrual basis of accounting, expenses follow revenues and are identified in the period when the economic activity occurs.

Accrual perspective: Earnings = Cash flow + accruals

Revenue Recognition Principle: Recognize revenue when the firm has performed all (substantial) services and cash receipt is likely certain, not just when cash is received.
Matching Principle: Expenses are recognized when the corresponding revenue is generated (expenses follow revenues), not when cash flows out of the firm.

Accrual accounting is used because it provides a better measurement of short-term performance by fixing timing problems. Evaluating based on cash flows can be misleading because cash inflows and outflows often occur in different periods ("the wrong year") than the actual economic substance (value creation or consumption)
Types of Accruals and Deferrals:

Deferrals

- **Prepaid Expenses:** expenses that have been paid by the company before they are consumed (e.g., prepaid insurance). These are assets
    - Asset (Cash) decreases, Asset (Prepaid Account) increases, with time prepaid account and expenses decreases
- **Unearned Revenues:** cash that has been received before the company's obligations in the transaction have been fulfilled (e.g., payment in advance for a year-long gym membership). These are liabilities.
    - Asset (Cash) increases, Liability (Unearned Revenue) increases, with time unearned revenue decreases and revenue increases

Accruals

- **Accrued Revenues:** a product or service has been successfully delivered, but payment has not yet been received. These are assets
    - Asset (Receivable) increases, Equity (Revenue) increases, with time account receivable decrease and cash increases
- **Accrued Expenses:** resources that have been used but not yet paid for. These are liabilities
    - Liability (Payable) increases, Equity (Expense) decreases, with time account payable and cash decreases

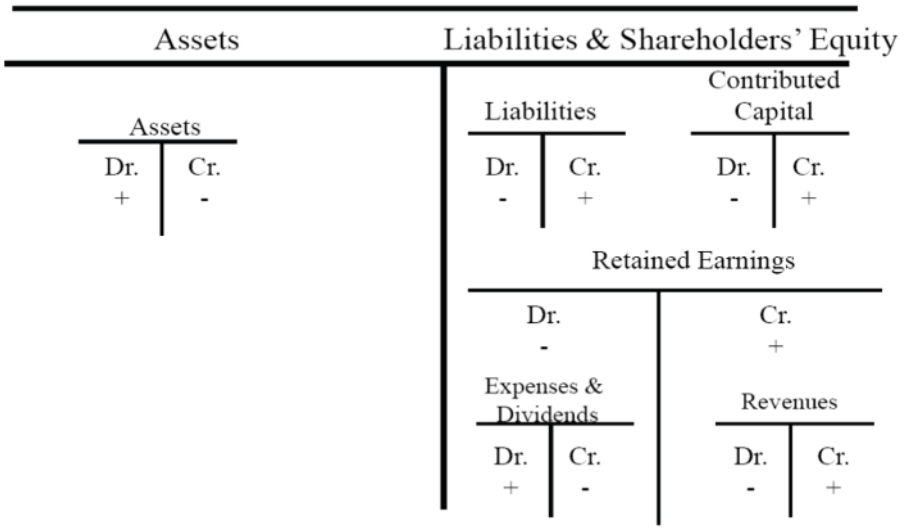
Debit and credit

Conventional accounting is done with T-accounts, where the left side is called debit and the right side is called credit.

- **Debit (Dr):** The left side of an account.
- **Credit (Cr):** The right side of an account.

Every transaction must have at least one debit and one credit, and total debits must equal total credits in the general ledger.

Super T-account



Examples:

– *Share issuing (ordinary shares, USD 15K in cash)*:

Debit Cash 15,000 USD

Credit Share Capital – Ordinary 15,000 USD

– *Buying Computer Equipment (USD 7K in cash)*:

Debit Computer Equipment 7,000 USD

Credit Cash 7,000 USD

Intermediate Accounting – IBEB – FA Lecture 2, week 2
Cash Flow Statement

Cash flow statement

The basis for the statement of cash flows is:

- **Cash**: includes cash in hand and checking accounts
- **Cash equivalents**: short-term, highly liquid investments that are both:
  - Readily convertible to known amounts of cash.
  - So near their maturity that they present an insignificant risk of changes in value (e.g., due to changes in interest rates). Generally, investments with original maturities of three months or less qualify under this definition.

Purpose of cash flow statement

The Balance Sheet provides a static view, and the Income Statement provides a dynamic view of business activity, but neither shows **how cash has evolved over time**

- Provide information about a company's cash receipts and cash payments during a period
- Provide cash-basis information about the company's operating, investing, and financing activities

It mainly provides information to:

- Assess a company's ability to generate future cash flows.
- Assess a company's ability to pay dividends and meet contractual obligations (survival).
- Assess the reasons for the difference between net income and net cash flow from operating activities (understanding the reliability of Net Income).
- Assess the cash and non-cash investing and financing transactions during the period.

Note on Cash vs. Accrual: A business can be highly profitable on the income statement (accrual) but still faces a dangerous cash situation if customers pay late and suppliers must be paid early.

Types of cash flow

The **cash flow statement** is divided into three basic firm activities:

Change in cash = Cash from operations + Cash from investments + Cash from financing

Operating activities (involve income statement items):
- Derived from the main business activities
- Cash receipts from sales or cash payments to suppliers and employees
- Returns from loan (interest) and equity securities (dividends)

Investing activities (Involves changes in investments and non-current asset items):
- Buying and selling of fixed assets (PPE)
- Purchase or sale of debt/equity securities from other entities

Financing activities (Involves changes in equity and non-current liability Items):
- Share capital and dividends
- Long-term loans and bond issues

Some items can be ambiguous. The course convention applies the following rules consistently:

Convention in our course:	Interest paid	Interest received	Dividends paid	Dividends received	Taxes paid
	OPE	OPE	FIN	OPE	OPE

Preparation of the cash flow statement

Three sources of information are needed: **Balance sheet, Income statement, and Selected transactions**. The following steps are taken:

1. Determine change in cash.
2. Determine net cash flow from operating activities.

3. Determine net cash flows from investing and financing activities.

Indirect method

Example

Tax Consultants Inc. started on January 2, 2019, when it issued 60,000 shares of $1 par value common stock for $60,000 cash:

- The company rented its office space, furniture, and equipment.
- The company performed tax consulting services throughout the first year.

TAX CONSULTANTS INC.
INCOME STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2019

Revenues	$125,000
Operating expenses	85,000
Income before income taxes	40,000
Income tax expense	6,000
Net income	$ 34,000

Additional information:
Examination of selected data indicates that a dividend of $14,000 was declared and paid during the year.

TAX CONSULTANTS INC.
COMPARATIVE STATEMENTS OF FINANCIAL POSITION

Assets	Dec. 31, 2019	Jan. 1, 2019
Accounts receivable	$36,000	$–0–
Cash	49,000	–0–
Total	$85,000	$–0–
Equity and Liabilities		
Ordinary shares ($1 par)	$60,000	$–0–
Retained earnings	20,000	–0–
Accounts payable	5,000	–0–
Total	$85,000	$–0–

TAX CONSULTANTS INC.
COMPARATIVE STATEMENTS OF FINANCIAL POSITION

Assets	Dec. 31, 2019	Jan. 1, 2019	Change Increase/Decrease
Accounts receivable	$36,000	$–0–	$36,000 Increase
Cash	49,000	–0–	49,000 Increase
Total	$85,000	$–0–	
Equity and Liabilities			
Ordinary shares ($1 par)	$60,000	$–0–	$60,000 Increase
Retained earnings	20,000	–0–	20,000 Increase
Accounts payable	5,000	–0–	5,000 Increase
Total	$85,000	$–0–	

Step 1: Determine change in cash.

- We can see from the balance sheet, Change in cash = Increase of $49,000

Step 2: Determine net cash flow from operating activities.

Net income (NI) ≠ cash flow from operating activities (CFO) because of accrual accounting

- We must eliminate the effects of income statement transactions that do not result in an increase or decrease in cash

There are two ways of calculating potential cash flow from operating activities:

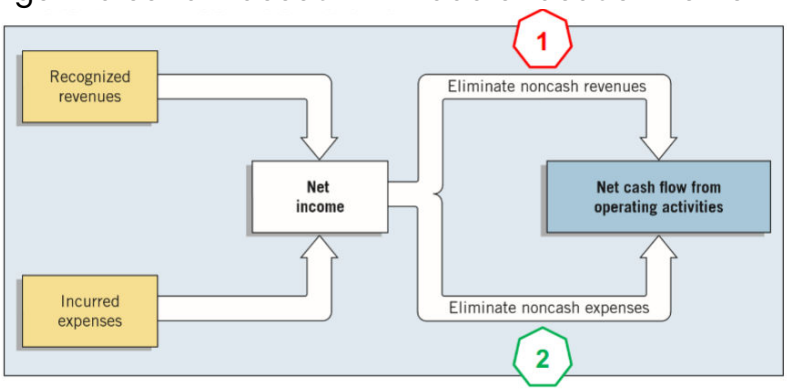
1. **Direct:**

   CFO = Cash revenues - Cash expenses

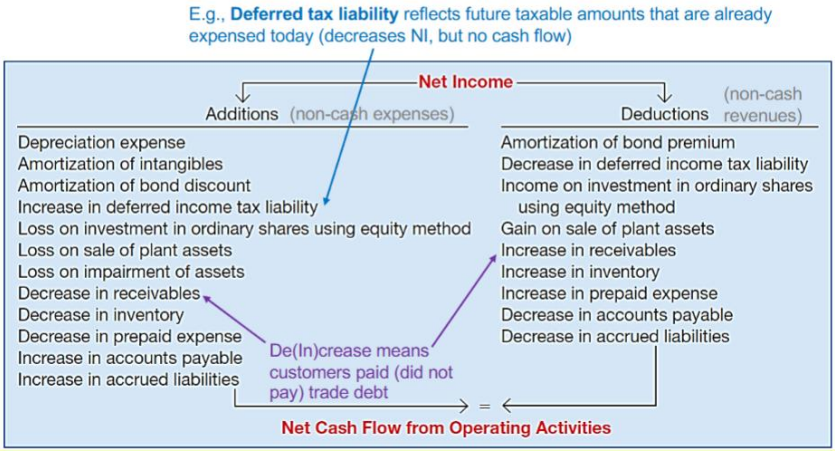
2. **Indirect** (the one in this example):

   CFO= Net income + non-cash expenses - non-cash revenues

The following 2 diagrams shows how the logic of the indirect method works and also whether a change in a certain account will add or deduct the Net income



1. …**deduct** non-cash revenues from NI
2. …**add back** non-cash expenses to NI



Back to our example:

- Start with Net Income ($34,000)
- Deduct increase in Accounts Receivable ($36,000)
- Add increase in Accounts Payable ($5,000).

- CFO = $3,000

Net income		$ 34,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Increase in accounts receivable	$(36,000)	
Increase in accounts payable	5,000	(31,000)
Net cash provided by operating activities		$ 3,000

Step 3: Determine net cash flows from investing and financing activities.

- CFI = $0 (no long-term assets).
- CFF = Issuance of stock ($60,000) - Dividends paid ($14,000) = $46,000.
- Total Change in Cash = $3,000 + $0 + $46,000 = $49,000

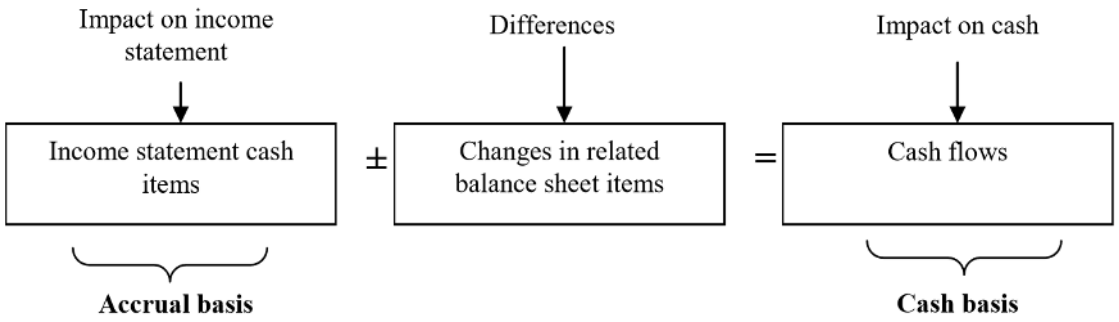
Cash flows from operating activities		
Net income		$ 34,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Increase in accounts receivable	$(36,000)	
Increase in accounts payable	5,000	(31,000)
Net cash provided by operating activities		3,000
Cash flows from financing activities		
Issuance of ordinary shares	60,000	
Payment of cash dividends	(14,000)	
Net cash provided by financing activities		46,000
Net increase in cash		49,000
Cash, January 1, 2019		–0–
Cash, December 31, 2019		$ 49,000

Direct method

Calculates CFO by directly adjusting each income statement line item to its cash basis.

CFO = Cash revenues - Cash expenses

It can be illustrated through the following equation:



Income statement items	Related current assets	Related current liabilities
Sales	Accounts receivable	Advances received from customers Revenues recorded in advance (unearned revenues)
Financial revenues	Interests receivable Accrued interests receivable	Unearned interests
Cost of merchandise sold	Inventory Advances paid to suppliers	Accounts payable
Rent expense	Prepaid rent (Expenses recorded in advance)	Rent payable Accrued rent payable
Compensation and social expenses	Prepaid compensation and social expenses (Expenses recorded in advance)	Compensation and social expenses payable Accrued salaries and social expenses payable
Other operating expenses	Prepaid other operating expenses (Expenses recorded in advance)	Other expenses payable Accrued other expenses payable
Taxes including income taxes	Prepaid taxes – prepaid income taxes (Expenses recorded in advance)	(Income) Taxes payable Accrued (income) taxes payable
Financial expenses	Prepaid interests	Interests payable Accrued interests payable

Intermediate Accounting – IBEB – MA Lecture 1, week 3
Cost terms & Absorption versus Variable Costing Systems

Cost Terms and Concepts

Managerial Accounting

Managerial accounting is used for internal decision making and is forward-looking, so there are no regulatory requirements for layout or content. The main aim is to understand how value is created in a company in order to make better decisions.

Financial Accounting

Financial accounting is used for external communication and is backward-looking. This type of communication is needed because ownership and control in corporations are separate. Separation of ownership and control can lead to agency problems, which is why investors and other creditors need to possess the same information as the managers. Ensuring that third parties have full information also helps to combat adverse selection and moral hazard problems.

Cost Allocation System

Cost Object

Cost Object: Any activity for which a separate measurement of cost is required (e.g., a product, service, department, or project).

A cost collection system accounts for costs in two broad stages:

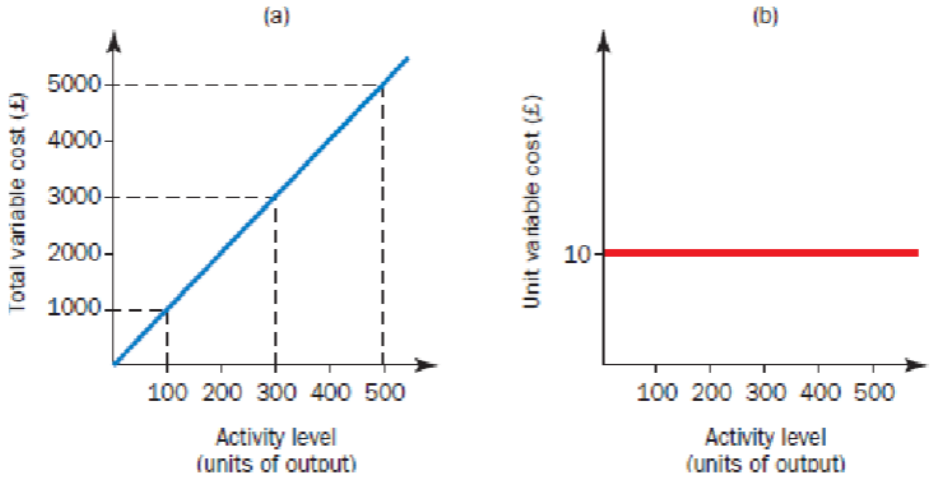
1. **Classifying costs** into categories (Behavior, Traceability, Function, Relevance).
2. **Assigning costs** to cost objects (Direct tracing vs. Cost allocation).

In this lecture we mainly focus on classifying costs

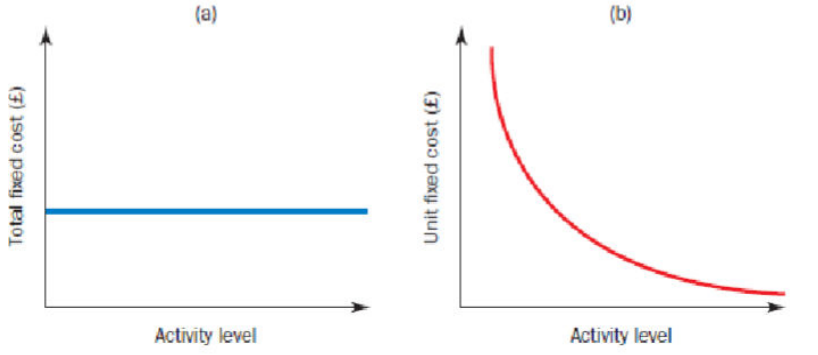
Categories

Behavior: How total costs react to changes in activity level within a relevant activity and time range.

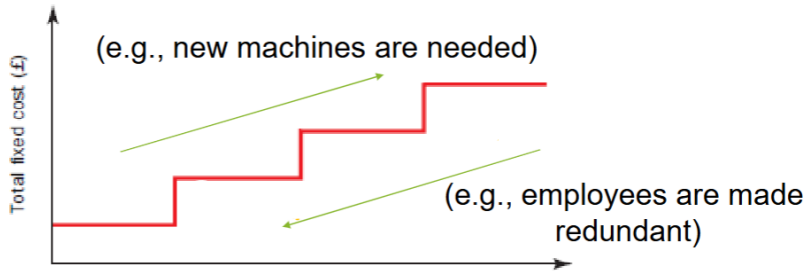
- **Note:** in the long run, ALL costs are variable, but they are fixed when looking at a specific time frame.
- **Variable costs**: Change in direct proportion with the total level of activity or volume (e.g., materials).



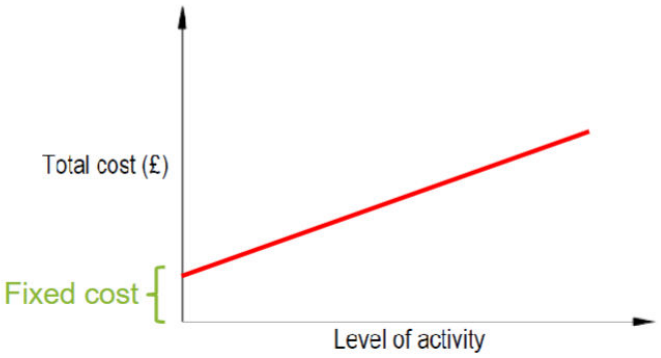
- **Fixed costs:** Remain constant over wide ranges of activity for a specified time period (e.g., rent, depreciation). For internal decision-making, it is often better to focus on total fixed costs.



- **Semi-fixed (Step-fixed) costs**: Constant within specific activity levels, but subject to step increases/decreases by a constant amount at critical activity levels (e.g., needing new machines or hiring/firing employees).



- **Semi-variable (Mixed) costs:** Include both a fixed component and a variable component (e.g., labor cost with a fixed wage and a variable bonus).



Traceability: how easily and accurately costs can be allocated to a cost object.

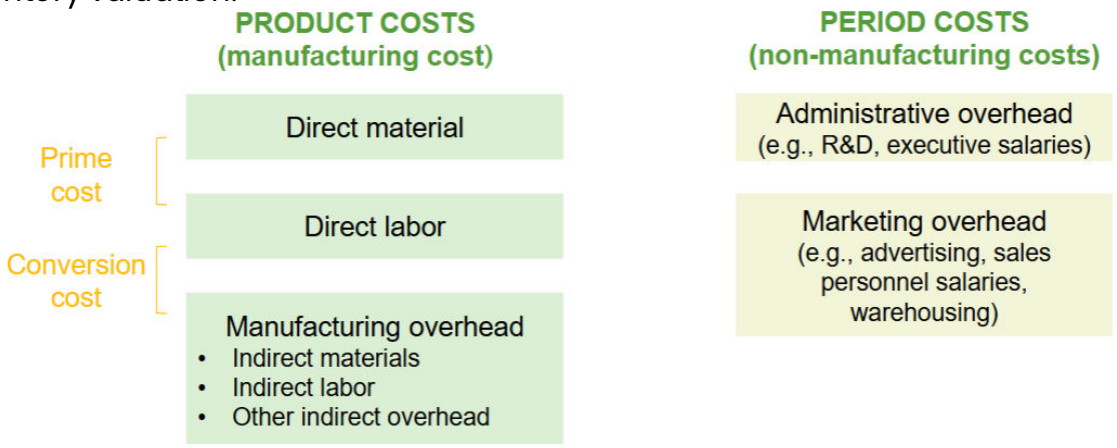
1. **Direct costs:** costs incurred for one cost object and can be accurately traced back (Golden rule: you can physically observe the amount of material and labour used).
    - Direct material cost
    - Direct labor cost (production employees)

2. **Indirect costs:** costs incurred for more than one cost object. A cost allocation process is needed.
    - Indirect material costs (cleaning or repair material)
    - Indirect labor costs (administration or maintenance)
    - Other expenses (factory rent)

Distinction:

- Sometimes, direct costs are treated as indirect since it's not cost effective to trace costs directly (e.g: the number of nails used in a desk, as the cost is likely insignificant)
- The distinction also depends on the cost object. A cost can be treated as direct for one cost object but indirect for another.

Cost Function: the extent to which the cost is relevant for profit measurement or inventory valuation.



Product / Manufacturing Costs:

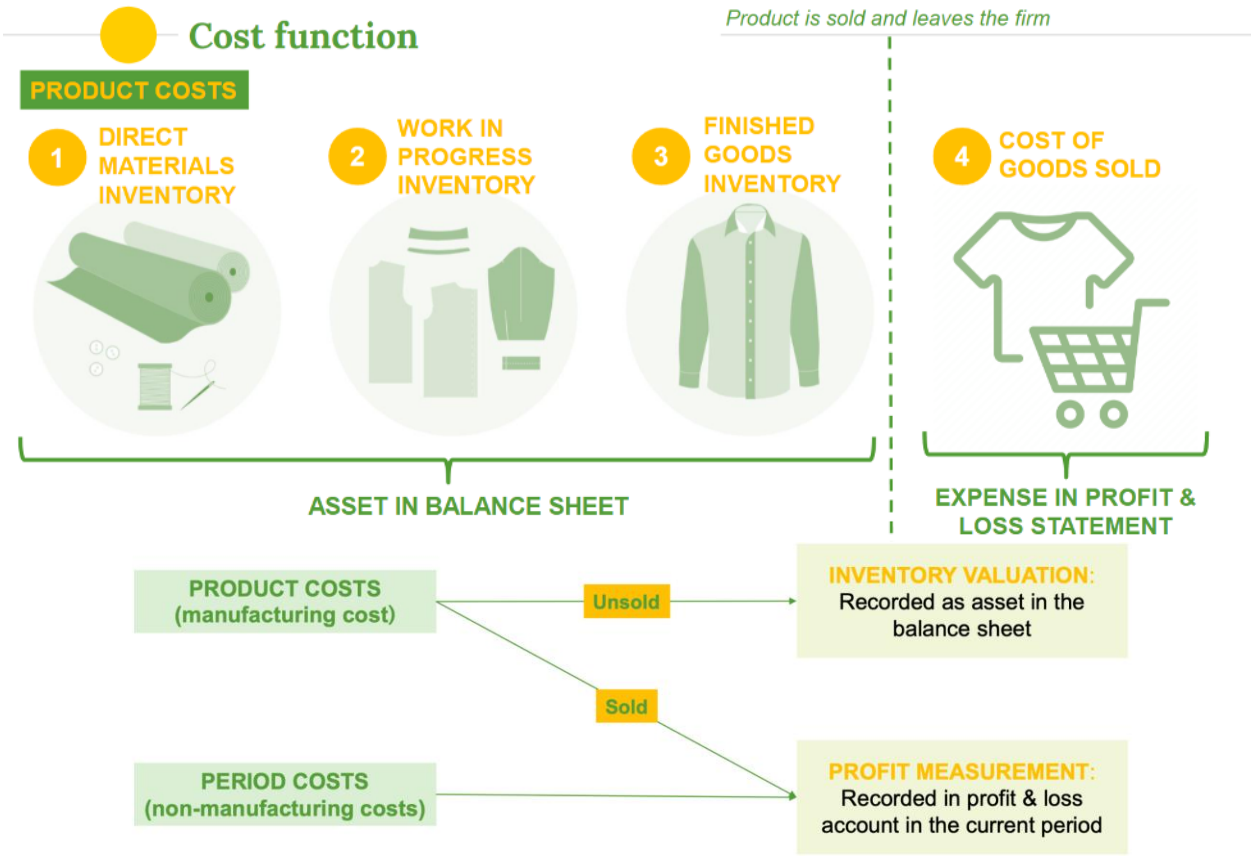
- Prime Cost: Direct material + Direct labor.
- Conversion Cost: Direct labor + Manufacturing overhead (MOH).

Period / Non-manufacturing cost:

- Administrative overhead
- Marketing overhead
- Office rent (not factory rent)

Note: Fixed manufacturing overhead can be regarded as product or period costs depending on the costing system in place

The following diagram shows us the pipeline of the costs of a product from entering as raw materials to being sold and recorded as cost of goods sold



Product cost recorded when:

- Unsold: They are treated as inventory on the balance sheet (matching principle: costs should be recorded as assets if they are expected to bring future economic benefits).
- Sold: They become cost of goods sold in the income statement (matching principle: product costs are matched with revenues when the product is sold).

Period / Non-manufacturing Costs: included in profit measurement, always treated as expenses in the income statement in the period they are incurred.

Costs/Revenue Relevance: The extent to which costs are relevant for making a particular decision.

1. **Relevant revenue/costs:** Future costs and revenues that will be changed by a decision
2. **Sunk Costs:** Costs that have already occurred and cannot be changed by any decision. Sunk costs are always irrelevant!

3. **Opportunity Costs:** measures the benefits that are lost or sacrificed when a certain action is chosen and an alternative action is given up. They are relevant costs

Note: NOT all future costs are relevant, but all relevant costs are future costs.

Example

Assume that Tesla must decide between producing electric car batteries themselves or buying them from another supplier firm. Based on the following annual figures, what should Tesla decide?

	MAKE	BUY	
Variable manufacturing costs	5,000,000 EUR	0 EUR	relevant
Fixed costs	10,000,000 EUR	10,000,000 EUR	irrelevant
Purchase price	0 EUR	25,000,000 EUR	relevant
Total relevant costs	-5,000,000 EUR	-25,000,000 EUR	

Tesla must decide between producing batteries (Make) or buying them (Buy).

- Variable manufacturing costs: €5,000,000 (Make) vs. €0 (Buy). -> Relevant (it changes).
- Fixed costs: €10,000,000 (Make) vs. €10,000,000 (Buy). -> Irrelevant (it doesn't change).
- Purchase price: €0 (Make) vs. €25,000,000 (Buy). -> Relevant (it changes).
- Total relevant costs: -€5,000,000 for Make vs. -€25,000,000 for Buy. Make is the better option.

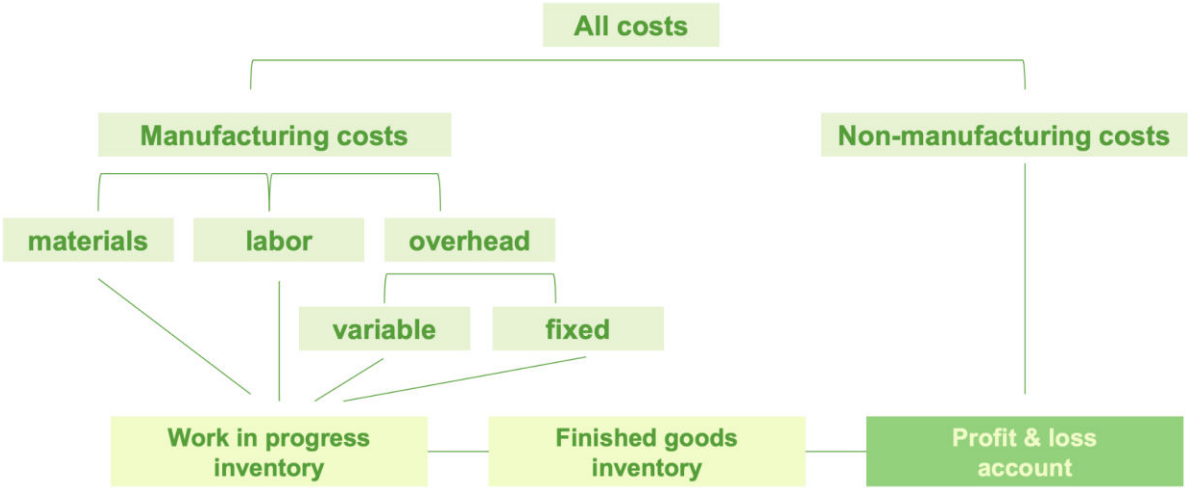
Absorption vs Variable Costing System

These two systems differ purely in how they handle **Fixed Manufacturing Overhead (MOH).** This difference impacts inventory valuation and reported profits.

Absorption / Full Costing

Required for external reporting (GAAP).

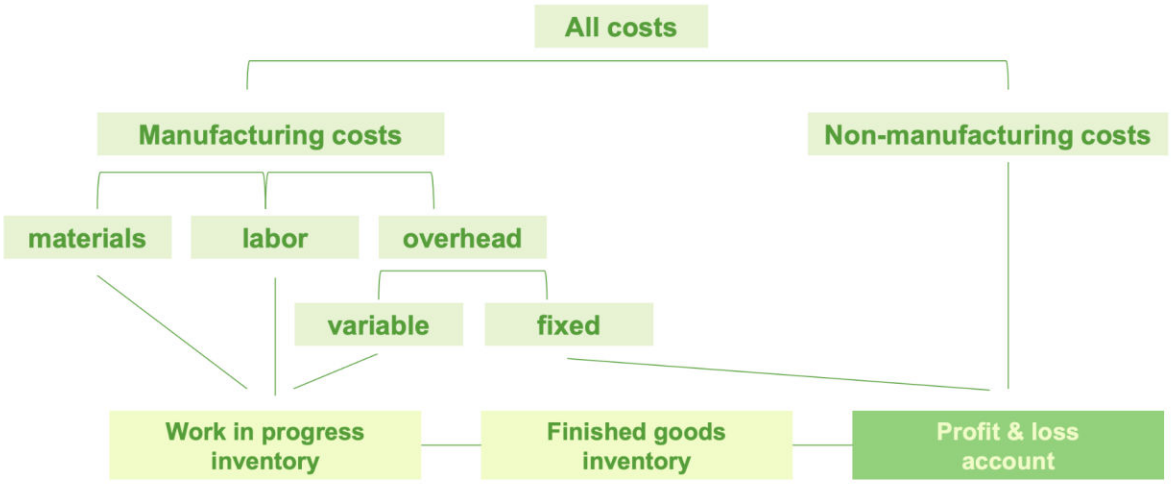
- ALL manufacturing costs (variable AND fixed) are treated as product costs (Inventory).
- Fixed manufacturing overhead is "absorbed" into the cost of the product and only expensed (as COGS) when the product is eventually sold**.**



Variable / Direct Costing

Useful for internal decision making.

- Only variable manufacturing costs (materials, variable labor, variable overhead) are treated as product costs (Inventory).
- Fixed manufacturing overhead is treated as a Period Expense immediately on the Profit & Loss statement



Summary

	Absorption Costing	Variable Costing
Included in product cost	- Direct materials - Direct labour - Variable and fixed MOH	- Direct materials - Direct labour - Variable MOH only
Fixed MOH treatment	Treated as part of the inventory cost	Treated as period cost
COGS includes	Variable + Fixed MOH	Only variable costs
Impact on profit if inventory changes	Profit is higher when inventory increases, as some fixed costs are deferred in inventory	Profit is lower when inventory increases, as all fixed costs are expensed immediately

Note: Variable costing uses a contribution margin, whereas absorption costing uses a gross margin in the income statement.

Example

In this example we will look at how the 2 costing method differs

- The important number is the Fixed manufacturing overhead = 12,000/1,000 = €12 per unit

Hello Knitty Factory produces and sells a single type of scarves. The following figures are available:

(in units)	PERIOD 1	PERIOD 2	PERIOD 3
Opening inventory	0	0	1,000
Production	1,000	3,000	1,000
Sales	1,000	2,000	2,000
Closing inventory	0	1,000	0

	EUR
Unit selling price	50
Manufacturing costs	
▪ Variable manufacturing costs per unit produced	20
Direct materials	*11*
Direct labor	*6*
Variable manufacturing overhead	*3*
▪ 12,000 EUR fixed manufacturing overhead per period (for a normal capacity of 1,000 units)	12
Non-manufacturing costs	
▪ Variable selling & administrative expenses per unit sold	4
▪ Fixed selling & administrative expenses per period	7,000

fixed = overhead rate

$\frac{12,000}{1,000}$

(1) Profit and loss (P&L) account based on VARIABLE COSTING:

	PERIOD 1	PERIOD 2	PERIOD 3
sales	**50,000** (1,000 x 50)	**100,000** (2,000 x 50)	**100,000** (2,000 x 50)
– variable COGS	**20,000** (1,000 x 20)	**40,000** (2,000 x 20)	**40,000** (2,000 x 20)
opening inventory	*0*	0	*20,000(1,000 x 20)*
production	*20,000 (1,000 x 20)*	*60,000 (3,000 x 20)*	*20,000 (1,000 x 20)*
- ending inventory	*0*	*20,000 (1,000 x 20)*	*0*
– variable non-manufacturing costs	4,000 (1,000 x 4)	**8,000** (2,000 x 4)	**8,000** (2,000 x 4)
= contribution margin	**26,000**	**52,000**	**52,000**
– fixed manufacturing overhead	**12,000**	**12,000**	**12,000**
– fixed non-manufacturing costs	**7,000**	**7,000**	**7,000**
= net operating income	**7,000**	**33,000**	**33,000**

(1) Profit and loss (P&L) account based on ABSORPTION COSTING:

	PERIOD 1	PERIOD 2	PERIOD 3
sales	**50,000** (1,000 x 50)	**100,000** (2,000 x 50)	**100,000** (2,000 x 50)
– COGS	**32,000** (1000 x 32)	**64,000** (2,000 x 32)	**64,000** (2,000 x 32)
opening inventory	*0*	*0*	*32,000 (1,000 x 32)*
production	*32,000 (1,000 x (20+12))*	*96,000 (3,000 x 32)*	*32,000 (1,000 x 32)*
- ending inventory	*0*	*32,000 (1,000 x 32)*	*0*
–/+ under- or over-absorption of fixed overhead	*I*	**24,000** ((3,000 – 1,000) x 12)	*I*
= gross margin	**18,000**	**60,000**	**36,000**
– non-manufacturing costs	**11,000** (4 x 1,000 + 7,000)	**15,000** (4 x 2,000 + 7,000)	**15,000** (4 x 2,000 + 7,000)
= net operating income	**7,000**	**45,000**	**21,000**

Of the 2 types of costing methods you see above there are a few differences:

- In the variable costing, we separate the costs into variable and fixed, first deducting the variable COGS and then the fixed part
- In the absorption costing, we separate the costs into manufacturing and non-manufacturing
- Furthermore, in absorption costing we also take into account the under/over absorption of fixed overhead

Absorption Costing: Four Denominator Levels

Under absorption costing, it requires an estimation of fixed overhead rates to assign per unit. Thus, it requires an allocation base to help estimate these costs:

$$\text{FIXED MANUFACTURING OVERHEAD RATE} = \frac{\text{budgeted fixed manufacturing overhead costs}}{\text{denominator activity level}}$$

1. **Theoretical capacity (maximum):** this means production which is at full speed of what is physically possible, all the time.
2. **Practical capacity:** production at maximum capacity, but considering unavoidable disruptions, holidays, maintenance time, etc.
3. **Normal capacity:** satisfies what customers on average demand over multiple time periods.
4. **Master-budget capacity:** the most expected capacity utilisation that will occur in the next budget period.

Under- or Over-Absorption of Fixed Overhead

Under absorption costing, we use a predetermined rate to assign fixed costs to products.

Fixed MOH Rate = (Budgeted Fixed Overhead) / (Denominator Activity Level)

Because this rate relies on an estimated denominator (capacity level), the amount of fixed overhead we "allocate" to products almost always differs from the "actual" fixed overhead incurred.

- Allocated Overhead = Actual Units Produced × Fixed MOH Rate

- If Allocated Overhead < Actual Overhead, we have Under-absorption. This represents the cost of unused capacity. We didn't produce enough units to "absorb" the real fixed costs. The shortfall is typically charged as an expense against profit.
- If Allocated Overhead > Actual Overhead, we have Over-absorption. We produced more than expected, applying too much fixed cost to products. This overcharge is credited back to increase profit.

In our example we assumed 1,000 unit but in period 2 we had 3,000 units that is why we have over-absorption

Example based on different capacity levels

Hello Knitty Factory provides us with the following figures concerning their different capacity levels:

CAPACITY LEVELS	*(in units)*
Theoretical capacity	4,000
Practical capacity	3,000
Normal capacity	1,000
Budgeted capacity	1,500

Assume that actual activity and actual fixed manufacturing overhead equal 1,000 units and 12,000 EUR, respectively

	FIXED MANUFACTURING OVERHEAD RATE (EUR/unit)	ALLOCATED TO PRODUCTS (EUR)	UNDER- OR OVER-ABSORPTION OF FIXED OVERHEAD (EUR) (cost of unused capacity)	F/A	TOTAL (EUR)
Theoretical capacity	(12,000 / 4,000) = 3	(3 x 1,000) = 3,000	((4,000 – 1,000) x 3) = 9,000	A	12,000
Practical capacity	(12,000 / 3,000) = 4	(4 x 1,000) = 4,000	((3,000 – 1,000) * 4) = 8.000	A	12,000
Normal capacity	(12,000 / 1,000) = 12	(12 x 1,000) = 12,000	((1,000 – 1,000) * 12) = 0	/	12,000
Budgeted capacity	(12,000 / 1,500) = 8	(8 x 1,000) = 8,000	((1,500 – 1,000) * 8) = 4,000	A	12,000

Profit comparison

Variable costing: Profit is a function of sales volume only
Absorption costing: Profit is a function of sales and production volume

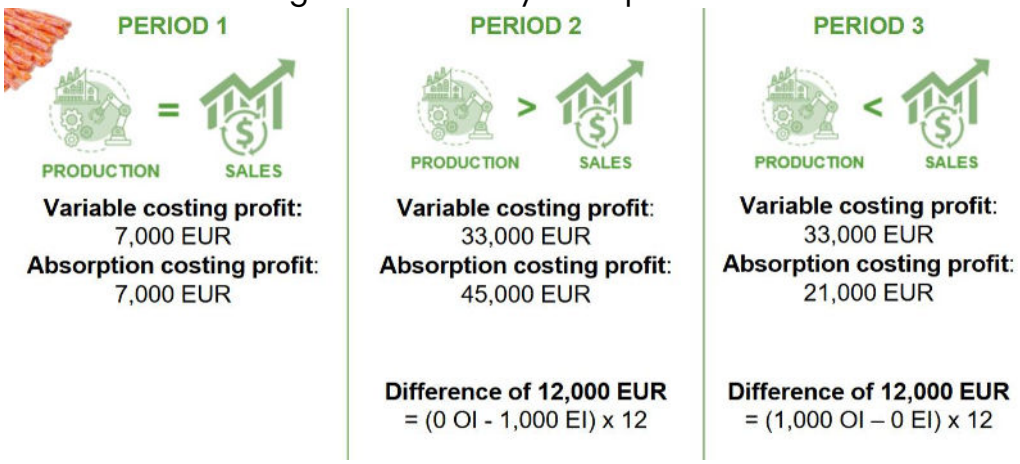
- **Production > Sales**: profit absorption costing > profit variable costing (inventories increase)
- **Production < Sales:** profit absorption costing < profit variable costing (inventories decrease)
- **Production = sales**: profit absorption costing = profit variable costing (NO change in inventories)

If production exceeds sales and variable costing records all of the fixed costs as period costs, then unsold inventory will be treated as an expense on the income

statement. Hence, profit will be lower in comparison with absorption costing, where only the fixed costs associated with sold goods are recorded as expenses.

Similarly, when sales exceed production, more of the fixed costs are expensed under absorption costing than with variable costing because variable costing would again record the produced goods.

This can be illustrated using the Hello knitty example

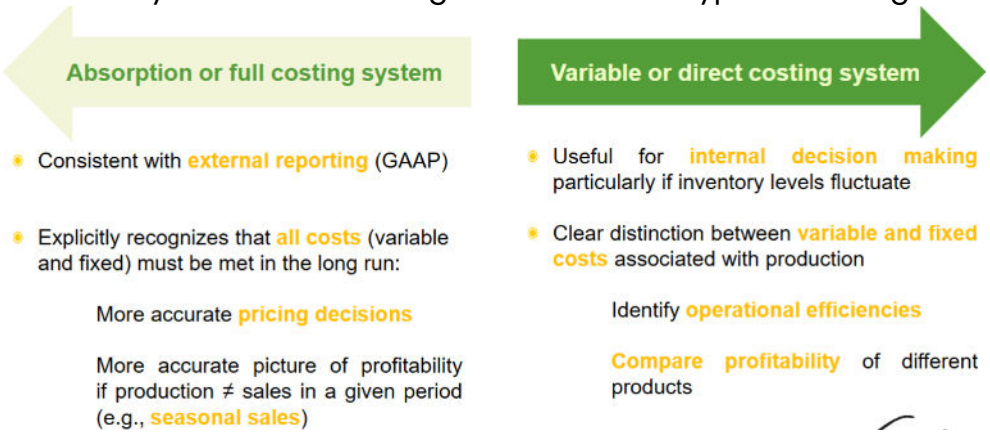


Period 2: Profits under Absorption (€45,000) is higher than Variable (€33,000) by €12,000. Under Absorption costing, 1,000 unsold units went into ending inventory, carrying 1,000 x €12 = €12,000 of fixed overhead with them onto the balance sheet.

- Variable costing expensed that €12,000 immediately.

Period 3: Profit under Absorption (€21,000) is lower than Variable (€33,000) by €12,000. The 1,000 units stored in inventory from Period 2 are now sold. The €12,000 of fixed overhead attached to them is finally released from the balance sheet into the income statement as an expense.

In the table below you can see the argument for each type of costing



Intermediate Accounting – IBEB - MA Lecture 2, week 3
Cost Allocation

Cost Assignment

Job Costing

This is when firms offer unique individual products or at least small batches of unique products to their customers. Usually, these products are tailored to meet the specific needs of each customer. This means that they will have their own characteristics and costs, thus must assign costs for each product individually.

Example: Erasmus University wants to order chocolates for their students to wish them good luck with their exams. They will place a custom order.

Process Costing

This is when large volumes of similar products are produced. Thus, these products are identical, and the costs will be the same

Example: Tony's Chocolonely produces the salted caramel chocolate bar. It is produced in mass production and on a continuous basis. There is no need to assign costs individually, as they have identical characteristics and costs.

Direct Tracing vs Cost Allocations

We have already seem that a cost collection system involves 2 stages, **classifying and assigning costs**, in the previous lecture we have seem classification of costs in detail, for this lecture we will look at how costs are assigned

Direct Costs

These costs include direct labour and material and can be accurately and immediately linked (directly traced) to an individual cost object. Remember that you can physically observe exactly how much direct material or labour is needed.

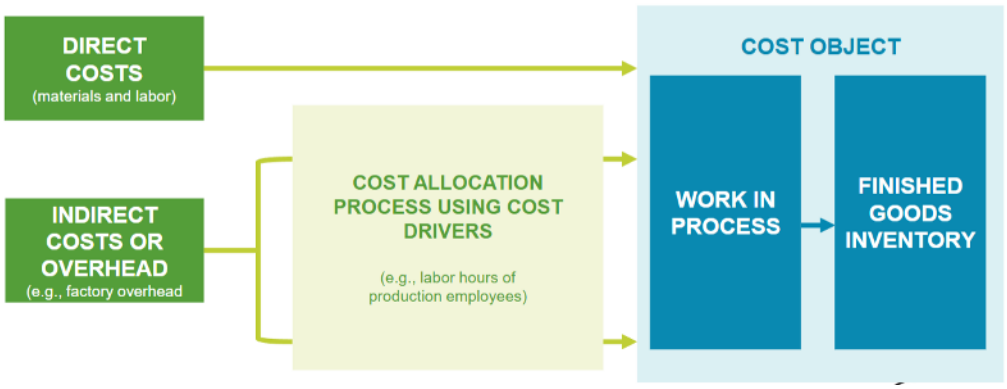
Indirect costs

Indirect costs are costs related to a cost object but that cannot be traced to it. We cannot use direct measures.

Example: electricity costs or heating costs of the factory. We do not know exactly the quantity and the costs that are associated with the specific quantity that is consumed by each object manufactured. Therefore, we need a cost allocation process where surrogate/alternative measures are used.

Note: costs are first treated as assets because we expect that these costs will generate future revenue. They are first registered as work in progress or finished goods. It is only when a product is sold that it is treated as an expense in the profit/loss account.

Cost Drivers or Cost Allocation Basis



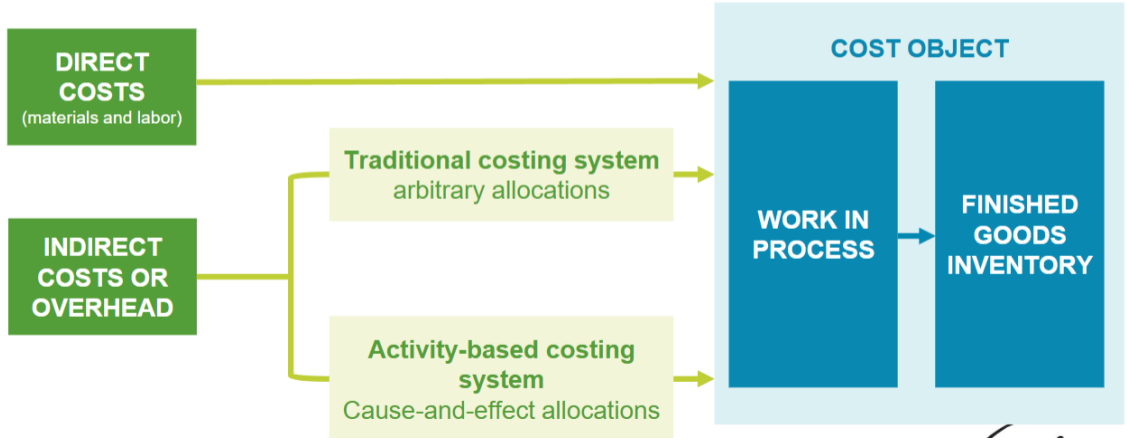
Any factor that causes a change in the cost of manufacturing products or offering services.

1. **Volume-related:** depends on the number of units manufactured (labour/machine hours, labour costs)

2. **Non-volume-related:** do NOT depend directly on units manufactured (number of setups, number of inspections)

Note: for accurate cost assignment, cost drivers should be significant determinants of costs. There should be a **causal relationship** between the cost driver and the size of the costs.

Allocation of Indirect Costs to Cost Objects



There are two ways to allocate indirect costs:

1. **Traditional Costing System - Arbitrary Allocations:** cost drivers are NOT always a significant determinant of cost. Less accurate cost assignment but are still very popular in practice.
2. **Activity-Based Costing System - Cause & effect Allocations:** focus on cost drivers that significantly determine the amount of costs so that we have an accurate cost assignment.

Note: under a traditional costing system, the accuracy of cost assignment will be lower, but it is a less expensive system. This is because higher accuracy requires gathering information and keeping information up to date, which is more costly (higher operating costs).

Apply the rule: **marginal benefit > marginal cost of making the system more accurate.**

Factors Impacting Benefit-Cost Tradeoff:

- **Size of the indirect cost:** if indirect costs are low compared to toilet cost, then a traditional costing system can still be very accurate.

- **Cost of gathering information:** if the cost of gathering/keeping information is low, then it is best to work with the activity-based costing system.
- **Product diversity:** if more different products are manufactured, the they will consume costs in different ways. Thus, activity-based costing is better suited.
- **Why do we need cost allocation?**
    - If we need it for managerial decision-making purposes => activity-based costing
    - If we need it to capture the value of inventory/COGS => traditional costing

Traditional Costing System

Assume that *Tony Chocolonely* produces **two unique types of chocolate bars (standard vs. premium chocolate bar)** made to Erasmus School of Economics' specifications. The following budgeted figures are available:

	STANDARD	PREMIUM	TOTAL
Production and sales	10,000	5,000	15,000
Direct materials (EUR)	2	4	40,000
Direct labor hours (hours)*	0.2	0.5	4,500
Direct labor costs (EUR)	1.6	4	36,000
Machine hours X	0.5	1.5	12,500
Machine hours Y	1.0	1.0	15,000
Indirect costs or manufacturing overhead (EUR)			225,000

Plant-wide (Blanket) Overhead Rate

The use of a single budgeted overhead rate for the organization as a whole. An overhead rate tells us how overhead costs are charged based on the chosen cost driver; thus, it is calculated as follows:

$$Budgeted\ Overhead\ Rate\ = \frac{total\ budgeted\ manufacturing\ overhead}{total\ budgeted\ amount\ of\ the\ cost\ driver}$$

The overhead rate is used for the factory as a whole which leads to multiple disadvantages because within an organization products often pass through many different departments.

- Thus by using a single rate you assume that all products go through these departments in a similar way (**assume that product diversity is low**).
- This does not coincide with reality, therefore, it is not commonly used in practice.

Example:

Cost assignment of 225,000 EUR manufacturing overhead using direct labor hours as cost driver:

Budgeted plant-wide overhead rate: $= \frac{225{,}000 \text{ EUR manufacturing overhead}}{4{,}500 \text{ direct labor hours}}$

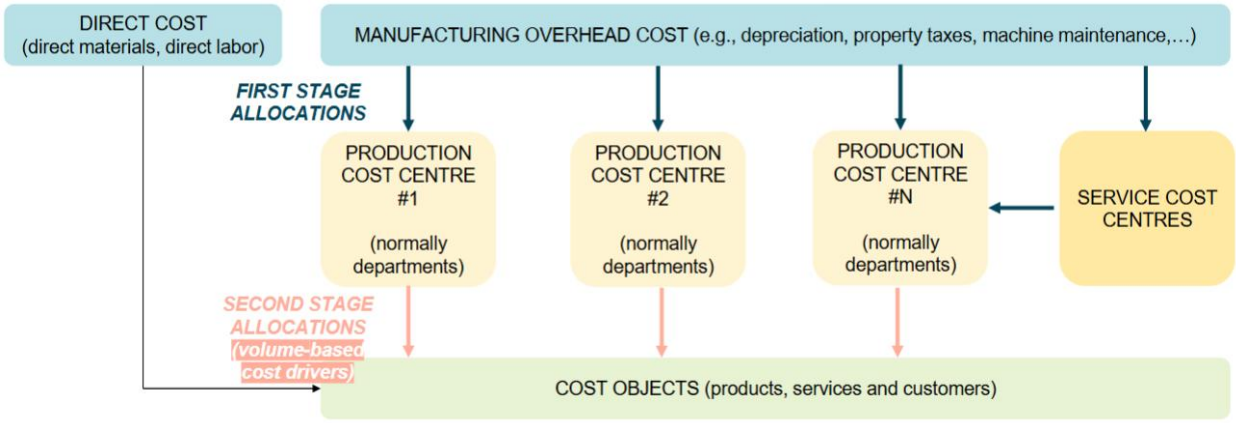
$=$ 50 EUR per direct labor hour

	STANDARD	PREMIUM
Direct materials	2	4
Direct labor costs	1.6	4
Manufacturing overhead	10 *(0.2 x 50)*	25 *(0.5 x 50)*
TOTAL COSTS PER UNIT **TOTAL COSTS**	13.6 136,000	33 165,000

In this example our chosen cost driver is direct labor hours. However, most likely, premium bars use departmental resources in different ways, in the sense that it requires going through more departments (needs more processing). Thus, we must look at other systems.

2-Stage Allocation Process: Traditional

Traditional systems typically use volume-based drivers.
This works best when product diversity is high. This is when cost objects will consume overhead costs in different ways. The difference from this process to others is how we treat manufacturing overhead.

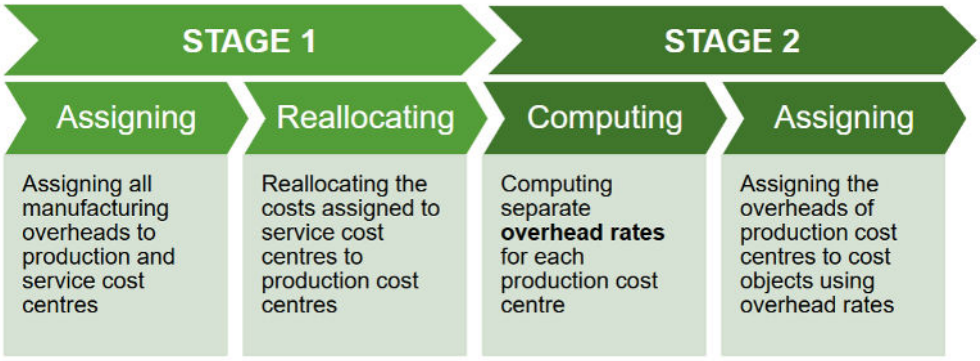


1st Stage: assign manufacturing overhead to production cost centers/pools (typically departments).

- Some are first allocated to a service cost center that renders essential support in the production process, but they are not directly related to production (these costs are reallocated to production centers).

2nd Stage: compute separate overhead rates for each production cost centre, then use cost drivers to allocate all the costs assigned to different production cost centres (1st Stage) to the cost objects.

- Traditional costing system: typically volume-based cost drivers (hours)



Example:

1st Stage

Allocate 225,000 EUR manufacturing overhead to production centres (i.e., production, packaging and quality department) (*STEP 1*):

	MANFACTURING OVERHEAD	COST DRIVER TO PRODUCTION COST CENTRES	AREA (SQ. METRES)
Indirect wages and supervison			
production department	10,000	Direct	280,000
packaging department	10,000	Direct	80,000
quality department	5,000	Direct	40,000
Lighting and heating	200,000	**Area**	

BUDGETED OVERHEAD RATE

$$= \frac{200{,}000}{280{,}000+80{,}000+40{,}000}$$

= **0.50 EUR** per sq. metre

	PRODUCTION COST CENTRES OVERHEAD
PRODUCTION	150,000 (*10,000* + *280,000* x*0.50*)
PACKAGING	50,000 (*10,000* + *80,000* x *0.50*)
QUALITY	25,000 (*5,000* + *40,000* x *0.50*)
	225,000

Cost Allocation, MA Lecture 2 (slide 15)

Note that indirect wages are direct for departments but indirect for cost objects. We know how much wage we have paid in each department, but we do not know how much labour from each department was used for each cost object.

2nd Stage

Allocate overhead in production centres to cost objects (*STEP 2*):

	PRODUCTION COST CENTRES OVERHEAD (1)	COST DRIVER TO COST OBJECTS (2)		BUDGETED PRODUCTION COST CENTRE OVERHEAD RATES (3) = (1) / (2)
PRODUCTION	150,000	Machine hours X	12,500	12 EUR per machine hour
PACKAGING	50,000	Machine hours Y	15,000	3.33 EUR per machine hour
QUALITY	25,000	Direct labor hours	4,500	5.56 EUR per labor hour

	STANDARD	PREMIUM
Direct materials	2	4
Direct labor costs	1.6	4
Production	6 (*12 x 0.5*)	18 (*12 x 1.5*)
Packaging	3.33 (*3.33 x 1.0*)	3.33 (*3.33 x 1.0*)
Quality	1.11 (*5.56 x 0.2*)	2.78 (*5.56 x 0.5*)
COST PER UNIT	14.04	32.11
TOTAL COSTS	140,400	160,550

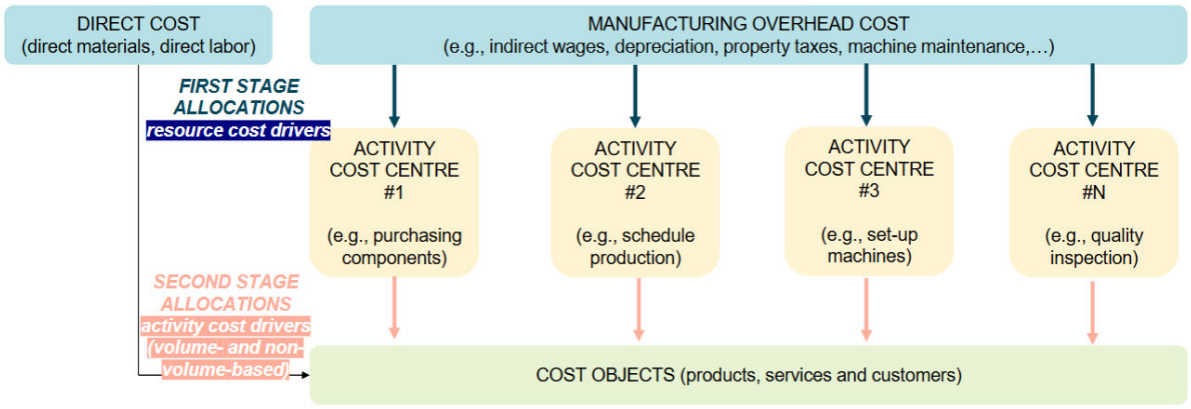
We can see that a premium chocolate bar consumes more overhead in the production and the quality department. This is not observable when using only one overhead to allocate all manufacturing overhead to our cost objects.

2-Stage Allocation Process: Activity-Based Costing Systems (ABC)

In this process, overheads are allocated to each major activity related to manufacturing a cost object, which is called activity cost center.

Activities are defined as the aggregation of many different tasks that share the same goal and cause the consumption of resources. Example: purchasing components, scheduling production, set-up machines, quality inspection.

The main difference is that ABC systems usually have more cost centers/pools than the traditional costing systems. This is because within a specif department multiple activities can be performed resulting in more activity cost centers than production cost centers under a traditional costing system.

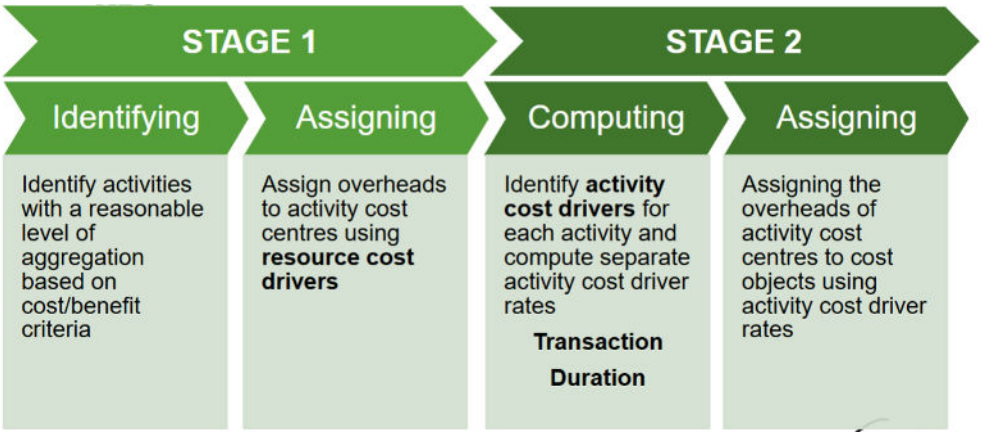


1st Stage: identify activities with a reasonable level of aggregation based on cost-benefit criteria and then use **resource cost drivers** to allocate each cost object to the activity cost centers.

- resource cost drivers: measure the quantity of resources consumed by an activity.

2nd Stage: use **activity cost drivers** to assign the cost within each activity cost center to different cost objects.

- Activity cost drivers: can be volume or non-volume-based
- Results in a more accurate assignment of costs.



Example
1st Stage:

Assume that **budgeted overhead of 225,000 EUR** is caused by the following **activities** (*Step 1*) and activities have the following activity cost drivers:

	OVERHEAD IN ACTIVITY COST CENTRES	ACTIVITY COST DRIVERS
PURCHASING	30,000	Number of purchase orders
MACHINE SET-UP	100,000	Number of set-ups
MAINTENANCE	20,000	Machine hours X
PACKAGING	50,000	Machine hours Y
QUALITY INSPECTION	25,000	Number of first item inspections
	225,000	

We have identified the different activity cost centers and their respective cost drivers

2nd Stage:

The following figures are also known:

	STANDARD	PREMIUM	TOTAL
Production and sales	10,000	5,000	15,000
Number of purchase orders	2	4	40,000
Number of set-ups	1	6	40,000
Machine hours X	0.5	1.5	12,500
Machine hours Y	1.0	1.0	15,000
Number of first item inspections	4	10	90,000

Allocate overhead in activity centres to cost objects (*STEP 2*):

	ACTIVITY COST CENTRE OVERHEAD (1)	TOTAL AMOUNT OF ACTIVITY COST DRIVER (2)	BUDGETED ACTIVITY COST DRIVER RATES (3) = (1) / (2)
PURCHASING	30,000	40,000	0.75 EUR per purchasing order
MACHINE SET-UP	100,000	40,000	2.5 EUR per set-up
MAINTENANCE	20,000	12,500	1.6 EUR per machine hour X
PACKAGING	50,000	15,000	3.33 EUR per machine hour Y
QUALITY INSPECTION	25,000	90,000	0.28 EUR per inspection

Now using the activity cost centre overhead and the total amount of activity cost centre we can get the budgeted activity cost driver rates, to finally get the total cost per unit of a standard and premium chocolate bar

BUDGETED ACTIVITY COST DRIVER RATES (3) = (1) / (2)
0.75 EUR per purchasing order
2.5 EUR per set-up
1.6 EUR per machine hour X
3.33 EUR per machine hour Y
0.28 EUR per inspection

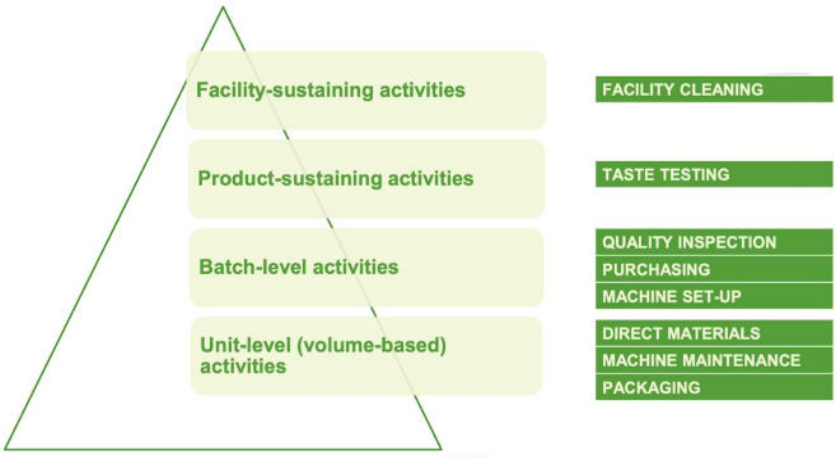
	STANDARD	PREMIUM
Direct materials	2	4
Direct labor costs	1.6	4
Purchasing	1.5 (*0.75 x 2*)	3 (*0.75 x 4*)
Machine set-up	2.5 (*2.5 x 1*)	15 (*2.5 x 6*)
Maintenance	0.80 (*1.6 x 0.5*)	2.40 (*1.6 x 1.5*)
Packaging	3.33 (*3.33 x 1*)	3.33 (*3.33 x 1*)
Quality controls	1.12 (*0.28 x 4*)	2.80 (*0.28 x 10*)
TOTAL COSTS PER UNIT **TOTAL COSTS**	12.85 128,500	34.53 172,650

Note that the premium chocolate bar is more complex, and the costs associated with the complexity are better captured by the ABC system, as it shows which activities are the most cost-intensive.

Activity hierarchies

ABC recognizes that not all activities happen at the unit level. Costs belong to a hierarchy:

1. **Facility-sustaining activities:** Support the entire organization. DO NOT allocate to products.
    - Example: Facility Cleaning.
2. **Product-sustaining activities:** Support an entire product line, regardless of batches or units.
    - Example: Taste Testing.
3. **Batch-level activities:** Performed each time a batch of goods is produced, regardless of how many units are in the batch.
    - Examples: Purchasing, Machine Set-up, Quality Inspection.
4. **Unit-level (volume-based) activities:** Performed each time a single unit is produced.
    - Examples: Direct Materials, Machine Maintenance, Packaging.



Over/Under Absorption of Manufacturing Overheads

Overhead rates are estimated at the beginning of the year based on budgeted costs and budgeted activity. At the end of the month/year, the actual costs and activity are known.

- If Allocated Overhead < Actual Overhead = Under-absorption
- If Allocated Overhead > Actual Overhead = Over-absorption

Note: This difference is always treated as a period cost (expensed immediately in the P&L).

Example:

Yankee Candle produces a unique Christmas candle. The firm uses **direct labor cost to allocate manufacturing overhead**. On November 1, total **budgeted direct labor cost** for November is **6,000 EUR**, the **budgeted manufacturing overhead is 12,000 EUR**.

On November 30, **actual direct labor costs** and **actual manufacturing overhead** are known. Consider the following two scenarios:

	Actual direct labor cost	Actual manufacturing overhead
SCENARIO 1	5,500 EUR	12,000 EUR
SCENARIO 2	7,500 EUR	14,000 EUR

Determine the under- or over-absorption of manufacturing overhead for each scenario.

- Budget: Direct Labor Cost = €6,000. Manufacturing Overhead = €12,000.
- Budgeted Overhead Rate: €12,000 / €6,000 = 200% of direct labor cost.

At the end of November, actuals are known. We apply the 200% rate to the actual direct labor to find the allocated overhead, and compare it to the actual overhead bills.

	Actual direct labor cost (1)	Allocated Overhead (2) = 200% of (1)	Actual overhead (3)	Amount of under- or over-absorption (4) = (3) – (2)
SCENARIO 1	5,500	11,000	12,000	1,000 under-absorption
SCENARIO 2	7,500	15,000	14,000	1,000 over-absorption

Scenario 1:

- Actual Direct Labor = €5,500. Actual Overhead bills = €12,000.
- Allocated Overhead = €5,500 × 200% = €11,000.
- We allocated €11,000, but bills were €12,000.
- Result: €1,000 Under-absorption. (We didn't allocate enough).

Scenario 2:

- Actual Direct Labor = €7,500. Actual Overhead bills = €14,000.
- Allocated Overhead = €7,500 × 200% = €15,000.
- We allocated €15,000, but bills were only €14,000.
- Result: €1,000 Over-absorption. (We allocated too much).

Comparing Cost System Designs (Traditional vs ABC)

Choosing a system involves a cost-benefit trade-off between the accuracy of the cost data and the cost of gathering that information.

Traditional Costing System:

- Indirect costs are a smaller part of total costs.
- Uses volume-based, arbitrary allocations.
- Low information-gathering costs.
- Suited for low product diversity and low competition environments.

Activity-Based Costing (ABC) System:

- Indirect costs are dominant.
- Uses cause-and-effect allocations (both volume and non-volume drivers).
- Highly accurate for managerial decision-making.
- High information-gathering costs.
- Suited for high product diversity and high competition, as it tracks the cost of complexity.

Intermediate Accounting – IBEB – FA Lecture 3, week 4 - Equity

Initial Public Offering (IPO)

For a firm to become publicly owned, it raises capital by issuing shares in an initial public offering (IPO). After the IPO, shares are able to be traded freely in the open market. The capital it earns is part of contributed capital and does not need to ever be paid back to investors in the IPO.

Advantages:

- Raise capital
- Monetize investments of early private investors
- Become a traded enterprise

Disadvantages:

- Greater costs
- Disclosure requirements
- Stronger agency problems

Equity

Share Types

Companies can offer two or more classes of shares to appeal to different investors. Within a specific class, every share is exactly equal. Shares represent a residual corporate interest, meaning shareholders bear the ultimate risks of losses but also receive the ultimate benefits of success. There are no guaranteed dividends or assets upon dissolution

Some companies offer two or more classes of shares (dual shares):

1. **Ordinary Shares (Class A)** - represent the basic ownership interest. Each share has rights/privileges:
    - Sharing profits and losses in proportion to ownership (the number of shares owned)

- Sharing proportionately in management of the firm (voting rights)
- Sharing proportionately in the assets that the firm owns, in case it has to be liquidated (assets have to be sold to satisfy creditors)
- Sharing proportionately in the issuing of any new shares of the same class (called the pre-emptive right)

2. **Preference Shares (Class B)** - sacrifice certain basic rights in return for other special rights:
    - Preferred dividends, which can be cumulative (unpaid dividends carry over to the next year) or non-cumulative.
    - Often have no voting rights, or alternatively, more voting rights per share.
    - Can sometimes be convertible into ordinary shares or callable by the firm.

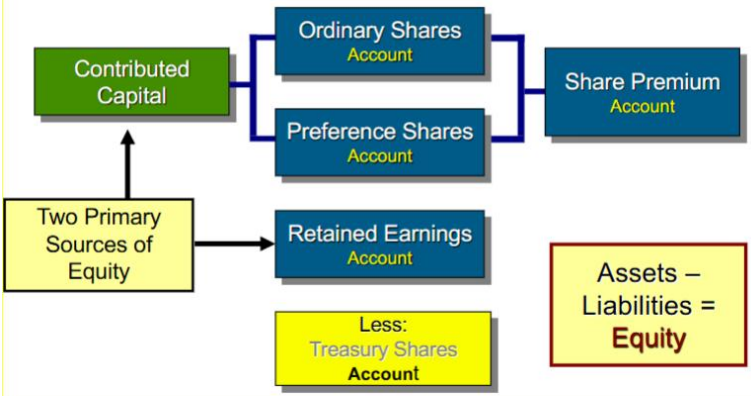
Note: Within a given class of shares, each share exactly equals every other share. Dual shares (a mix of both types of shares) are NOT always allowed.

Key Components of Equity

Equity = Assets - Liabilities = Residual interest in the firm's assets after deducting all liabilities.

Primary Sources of Equity:

1. **Contributed Capital**
    - Ordinary shares account: The par or nominal value of common stock issued.
    - Preference shares account: For preferred stock, if issued.
    - Share Premium: Any amount paid by shareholders above the nominal value of the shares.
2. **Retained Earnings Account**
3. **Treasury Shares Account:**
    - This account reflects the shares the company has repurchased
    - Treasury shares are held by the company and do not receive dividends or voting rights.
    - They are recorded as a negative number in equity, reducing total shareholders' equity.



Shares issuing

Key steps for a firm to issue shares in an IPO process

1. The applicable governmental agency must authorize the share issuance/IPO
2. The company hires investment banks (underwriters and legal consulting firms) to get guidance for the process.
    - Contact institutional investors
    - Helps with road shows and disclosure requirements
3. Underwriters have to determine the IPO price based on the demand from institutional investors.
4. On the day of the IPO, the shares are traded at the stock exchange. As a private investor, you may then start trading shares in the secondary market.

Par/Non-par value shares

Shares can be issued with a "par value" or "no-par value".
Par Value Shares – Company has to maintain 2 separate accounts for both preference and ordinary shares:

- **Share Capital Account** = nominal share capital = par-value of shares = no. of shares x par value
- **Share Premium Account** = the excess over par value

The par value has no relation to the fair value and is usually a very low amount.

Non-Par Value Shares – Company maintains just one account (share capital)

Journal entries for a EUR 0.01 **par-value** issue of 1,000,000 ordinary shares at EUR 20:

Cash (BS)	20,000,000	
Share capital – ordinary (BS)		10,000
Share premium – ordinary (BS)		19,990,000

No-par value share issue:

Cash (BS)	20,000,000	
Share capital – ordinary (BS)		20,000,000

Costs of Issuing Shares: Direct costs e.g, underwriting costs, accounting/legal fees, printing costs, taxes, …

- These costs reduce the total equity raised, so they are debited from the share premium account, instead of being recorded as expenses in the income statement.

Lump-Sum Sales

Lump-sum sale: When two or more classes of securities are issued for a single payment.

1. Proportional Method (used when fair values of all securities are known)

- Allocate lump sum on a proportional basis of fair values.

E.g., shares issued for lump sum of $30,000 – 1,000 ordinary shares ($10 par value, $20 fair value) and 1,000 preference shares ($10 par value, $12 fair value)

FV ordinary shares (1,000 x $20)	=	$20,000
FV pref. shares (1,000 x $12)	=	$12,000
Total	=	$32,000

Allocation to:

Ordinary shares = 20/32 (or 62.5%) x $30,000 = **$18,750**

Pref. shares = 12/32 (or 37.5%) x $30,000 = **$11,250**

	Debit	Credit
Cash	30,000	
Share Capital—Ordinary		10,000
Share Premium—Ordinary		8,750
Share Capital—Preference		10,000

Share Premium—Preference	1,250

2. Incremental Method (used when the fair value of one security is unknown)

- Allocate first to securities with known fair value, then the rest to the class without fair value.

E.g., shares issued for lump sum of $30,000 – 1,000 ordinary shares ($10 par value, $20 fair value) and 1,000 preference shares ($10 par value, **NO fair value**)

Lump-sum receipt	=	$30,000
Ordinary (1,000 x $20)	=	$20,000
Balance	=	$10,000

→ Balance is allocated to preference shares

	Debit	Credit
Cash	30,000	
Share Capital—Ordinary		10,000
Share Premium—Ordinary		10,000
Share Capital—Preference		10,000
Share Premium—Preference		0

Non-Cash Transactions

Shares in non-cash transactions are issued in exchange for services or property.

- Records shares at fair value of goods/services
- **If fair value cannot be measured reliably, record at the fair value of shares**
- If both are unavailable: use alternative valuation methods (example: market data/discounted cash flow approach). Avoid using book/par/stated values

	Debit	Credit
Goods	Fair Value	
Share Capital		Par-value
Share Premium		FV - (par-value)

Share Buybacks & Treasury shares

Share buybacks: once shares have been issued a company can re-acquire them to:

- Provide tax-efficient distributions of excess cash to shareholders
- Increase earnings per share and return on equity
- Provide shares for employee compensation contracts or to meet potential merger needs
- Better fight hostile takeover attempts or to reduce the number of shareholders
- Make a market in the shares

After re-acquiring:

- Retire the shares
    - Cancelation
    - Reduction in the number of issued shares
    - Technically have the status of all authorized and issued shares (company does NOT need to seek approval from its shareholders)
- Hold the shares in the treasury account
- Treasury shares may be re-issued

Treasury shares are NOT an asset!

- Reduction in assets and equity because a company cannot own itself
- No voting rights
- The same as unissued ordinary shares

Treasury Shares

There are two methods to record them: **Cost Method** and **Par-Value Method** but most require the first one.

1. **Cost Method:** we account for the cost of buying back the shares, reporting "Treasury shares" account as a deduction from equity on the balance sheet

Example: Pacific has 100,000 shares, $1 par value, issued at $10 per share; retained earnings of $300,00

Equity	
Share capital—ordinary, $1 par, 100,000 shares issued and outstanding	$ 100,000
Share premium—ordinary	900,000
Retained earnings	300,000
Total equity	$1,300,000

Jan. 20, 2019, Pacific acquires 10,000 of its shares at $11 per share:

Treasury shares (BS)	110,000	
Cash (BS)		110,000

Result: total assets and equity go down

Equity	
Share capital—ordinary, $1 par value, 100,000 shares issued and 90,000 outstanding	$ 100,000
Share premium—ordinary	900,000
Retained earnings	300,000
Less: Cost of treasury shares (10,000 shares)	110,000
Total equity	$1,190,000

Selling treasury Shares

When selling treasury shares, accounting depends on price:

1. Selling price = cost of the re-acquisition
2. Selling price > cost of re-acquisition
3. Selling price < cost of re-acquisition

At cost:	Cash (BS)	X	
	Treasury shares (BS)		X
Above cost (X+Y):	Cash (BS)	X+Y	
	Treasury shares (BS)		X
	Share Premium - Treasury (BS)		Y
Below cost (X-Y):	Cash (BS)	X-Y	
	Share Premium - Treasury (BS)*	Y	
	Treasury shares (BS)		X

[*Only if there is a credit balance in "Share Premium – Treasury". Otherwise: debit any additional excess of cost over selling price to the "Retained Earnings".]

Example 1: Sale of treasury above cost

Pacific acquired 10,000 treasury shares at $11 per share. It now sells 1,000 shares at $15 per share on March 10. Pacific records the entry as follows:

	Debit	Credit
Cash	15,000	
Treasury Shares		11,000
Share Premium- Treasury		4,000

Example 2: Sale of treasury shares below cost
Pacific sells an additional 1,000 treasury shares on March 21 at $8 per share, it records the sale as follows:

	Debit	Credit
Cash	8,000	
Share Premium - Treasury*	3,000	
Treasury Shares		11,000

***** The missing $3,000 must be debited to "Share Premium - Treasury" (if there is a sufficient balance from previous sales). If that account is empty, the loss is debited to Retained Earnings.

Types of Dividends

Companies share their profits with the shareholders through dividends. Only few companies pay dividends in amounts = legally available retained earnings, because they need to:

- Maintain agreements with creditors (debt covenants)
- Finance growth/expansion
- Smooth out dividend payments
- Build up a cushion against possible losses

Additionally, companies may voluntarily NOT pay dividends. A reason for this could be that they want to internally finance their growth and expansion strategy.

- In exchange, dividend shareholders expect an even stronger share price performance to compensate for the lack of dividends.

$X Dividends reduce retained earnings by the same amount

- Total equity is reduced proportionally
- Part of the firm's value is distributed among the owners

1. Cash Dividends

Declaration Date: create current liability against retained earnings

	Debit	Credit
Retained Earnings	x	
Dividends Payable		x

Record Date: there is no journal entry; you only record the transaction
Payment Date: pay cash and reduce liability

	Debit	Credit
Dividends Payable	x	
Cash		x

Note: a firm can issue preference shares together/instead of ordinary shares. Companies usually issue preference shares with a par value (dividend preference as a percentage of the par value), e.g. 8% of $100 par value preference shares

2. Property Dividends

Distributing assets (like investments) instead of cash.

Example: Firm A declares a property dividend and transfers equity investments to shareholders. The fair value (FV) of the equity investment is 2 million and the book value (BV) is 1.25 million.

Declaration Date: restate at fair value, then entry to record dividend

	Debit	Credit
Equity Investment	750,000	
Unrealized Holding Gain/Loss (Income)		750,000
Retained Earnings	2,000,000	
Property Dividends Payable		2,000,000

Payment Date

	Debit	Credit
Property Dividends Payable	2,000,000	
Equity Investments		2,000,000

3. Liquidating Dividends:

These are a return of capital, not a distribution of profits. They reduce the Share Premium or Share Capital accounts rather than Retained Earnings.

- **Example:** Firm B issues liquidating dividends (X), half = income (Retained Earnings) and half = return on capital (Share Premium).

Declaration Date

	Debit	Credit
Retained Earnings	½ X	
Share Premium	½ X	
Dividend Payable		X

Payment Date

	Debit	Credit
Dividends Payable	X	
Cash		X

4. Share Dividends:

Distributing additional shares proportionally to existing shareholders.
This does NOT change the total book value of equity; it simply shifts amounts from Retained Earnings to Share Capital.

- Distribute its own shares proportionally to stake what shareholders already have (ONLY par-value method)
- Book value of equity remains unchanged => shifting between Retained Earnings (decrease) and Share Capital (increase)

Example: A firm has 100,000 shares outstanding (5 EUR par, 8 EUR fair value) and declares a 10% share dividend.

- 10% of 100,000 = 10,000 new shares. Using the par-value method, the total amount transferred is 10,000 shares * 5 EUR par value = 50,000 EUR.

Declaration Date

	Debit	Credit
Retained Earnings	Par value	
Share Dividend Distributable (EQ)		Par value

Payment Date

	Debit	Credit
Share Dividend Distributable (EQ)	Par value	
Share Capital		Par value

Note: At the end of the day, the total value of equity remains unchanged!

Share Splits

Assume that a company does not pay any dividends, instead increases its retained earnings, and uses the funds for its growth strategy. In this situation, the share price reflects the growth, sales, and earnings over time. This may cause the share price to become less accessible to investors. This is when share splits are useful.

Share split: split already existing shares to have more shares at a lower price.

Example: 4-for-1 split of 100,000 shares at 100 euros => 400,000 shares at 25 euros.

- There are NO journal entries
- Just a note to record the increased number of shares and the change in the par value per share

Share Split vs Share Dividends

A share split:

- Increases number of shares outstanding
- Decreases par value per share

Share dividends also increase the number of shares outstanding

- It does NOT decrease par value per share but does increase the total par value of shares.
- Only with the cash dividend is the company able to reduce the total equity.

	Declaration	Payment	Declaration and Payment	
Effect on:	**Cash Dividends**	**Cash Dividends**	**Share Dividends**	**Share Splits**
Retained earnings	Decrease	-	Decrease	-
Share capital	-	-	Increase	-
Share premium	-	-	-	-
Total equity	Decrease	-	-	-
Working capital	Decrease	-	-	-
Total assets	-	Decrease	-	-
# shares outstand.	-	-	Increase	Increase
Par-value	-	-	-	Decrease

Equity Presentation

Statement of Changes in Equity

For each component of equity, make a reconciliation between carrying the amount at the beginning and at the end of the period. Separately disclosing changes from:

- profit/loss
- Each item of “other comprehensive income”
- Transaction with shareholders

OCI = other comprehensive income

- Income that does NOT go through P&L, but directly to equity
- NO effect on net income and retained earnings
- CI = comprehensive income = net income + OCI

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