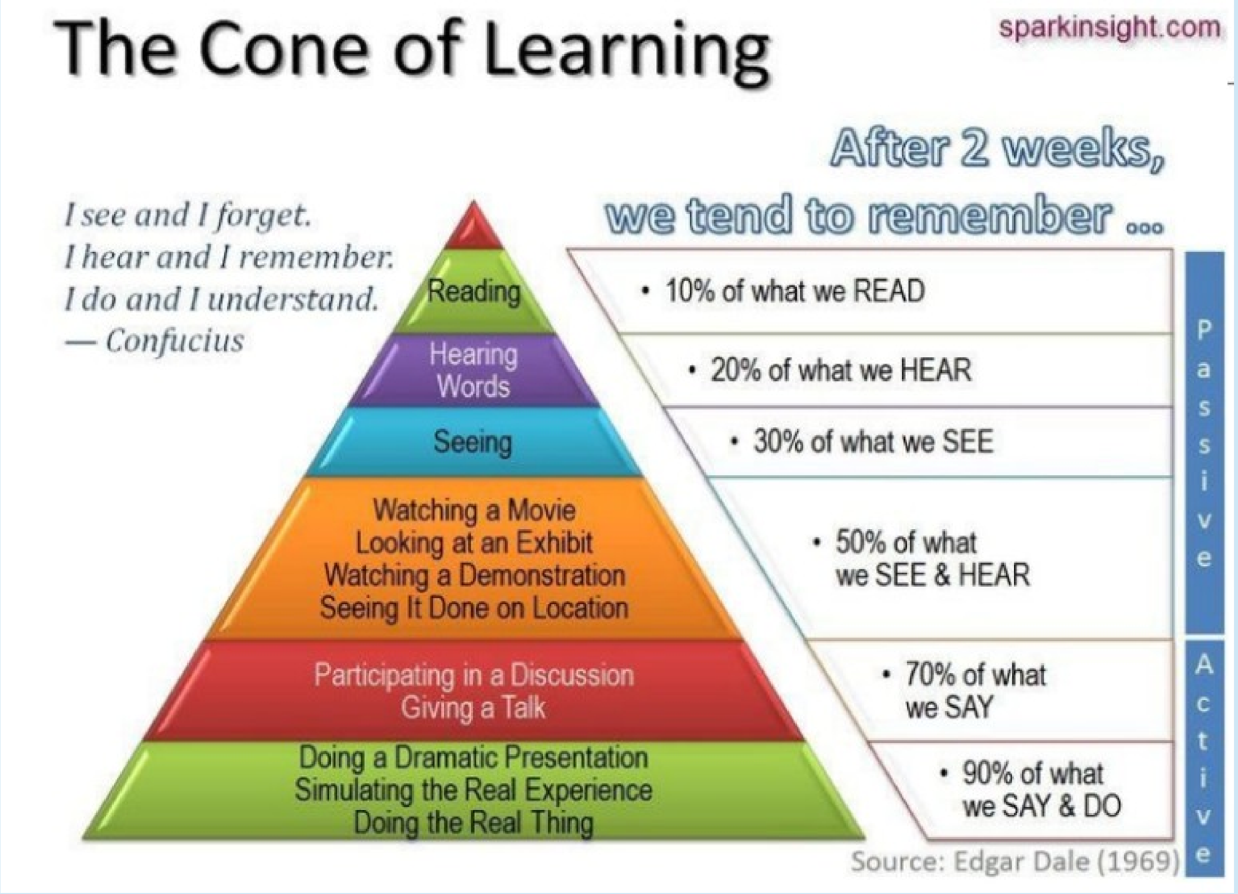
Introduction to Finance (BIP)

ESADE


The Cone of Learning
sparkinsight.com
After 2 weeks,
we tend to remember ...
I see and I forget.
I hear and I remember.
I do and I understand.
— Confucius
Reading
Hearing Words
Seeing
Watching a Movie
Looking at an Exhibit
Watching a Demonstration
Seeing It Done on Location
Participating in a Discussion
Giving a Talk
Doing a Dramatic Presentation
Simulating the Real Experience
Doing the Real Thing
• 10% of what we READ
• 20% of what we HEAR
• 30% of what we SEE
• 50% of what we SEE & HEAR
• 70% of what we SAY
• 90% of what we SAY & DO
Passive
Active
Source: Edgar Dale (1969)

Learning Objectives

- Understand the fundamental concepts, language and practices of accounting and finance.
- Understand and manage accounting information to make effective decisions that create value.
- Acquire a set of general tools/techniques that are crucial to making sound business decisions.
- Apply those tools to a number of business cases and examples.
- United States' Generally Accepted Accounting Principles (GAAP) & International Financial Reporting Standards (IFRS)

GAAP & IFRS

- United States' Generally Accepted Accounting Principles (GAAP) & International Financial Reporting Standards (IFRS)
- IFRS is the accounting standard used in more than 110 countries.
- IFRS is considered more of a principles-based accounting standard, arguably, it represents and captures the economics of a transaction better than GAAP.
- GAAP is considered more rules-based: a list of detailed rules that must be followed when preparing financial statements. Having a set of rules can increase accuracy, reduce ambiguity and it diminishes the possibility of lawsuits to accountants.

IFRS - Spain

- Spanish General Accounting Plan
- Part 2: Accounting framework (p.27) o Accounting Principles o Components of annual accounts
- Part 5: Standard format for annual accounts (p.113)
- Part 7: Chart of accounts (p.179) • Part 8: Definitions and accounting entries (p.205)

Financial Statements

- The **balance sheet** includes assets (goods and producing assets) and financing sources (equity, debt, and reinvestments from net earnings) as of a point in time.

- The **income statement** is a measure of operations, the activities involved in selling the goods and services: EBITDA, EBIT, net income…

- The **statement of cash flows** reports the cash inflows and outflows associated with the operating, investing, and financing activities of the business.

- The **statement of shareholders’ equity** keeps track of the investments made by the shareholders—either through equity investments or reinvested earnings—reduced by dividends paid to the shareholders.

Balance Sheet

- Summarizes a company's assets, liabilities and shareholders' equity at one moment in time.

– Give stakeholders an idea as to what the company owns and owes, as well as the amount invested by the shareholders.

- Balance Sheet is a snapshot (STATIC picture) of the company's financial position at one point in time (a single moment in time).

Balance Sheet

- Assets; what the company owns. Anything tangible (cash, trade receivables, inventories, buildings, equipment, etc.) or intangible (copyrights, goodwill, trademarks, patents,…) that is capable of being owned or controlled to produce value and that is held to have positive economic value.

– Liabilities are an organization’s responsibilities that come from past actions or events. To settle these liabilities, the organization may have to give up assets, provide services, or do something that results in an economic cost in the future.

– Shareholders’ equity; represents the remaining interest in assets of a company, after all liabilities are paid.

Financial Statements

Statement	**Information**	**Purpose**
Balance Sheet	Investments and Sources of funding	Financial Position / Financial Health
Income Statement	Revenues, Expenses and Results	Profitability / Margin
Cash Flow Statement	Collections, Payments and Cash generated	Uses and Sources of Cash

Balance Sheet Components

Assets − Liabilities = Worth

- “*What you have, minus what you own, is what you’re worth*”

“have” “owe” “value to owners”

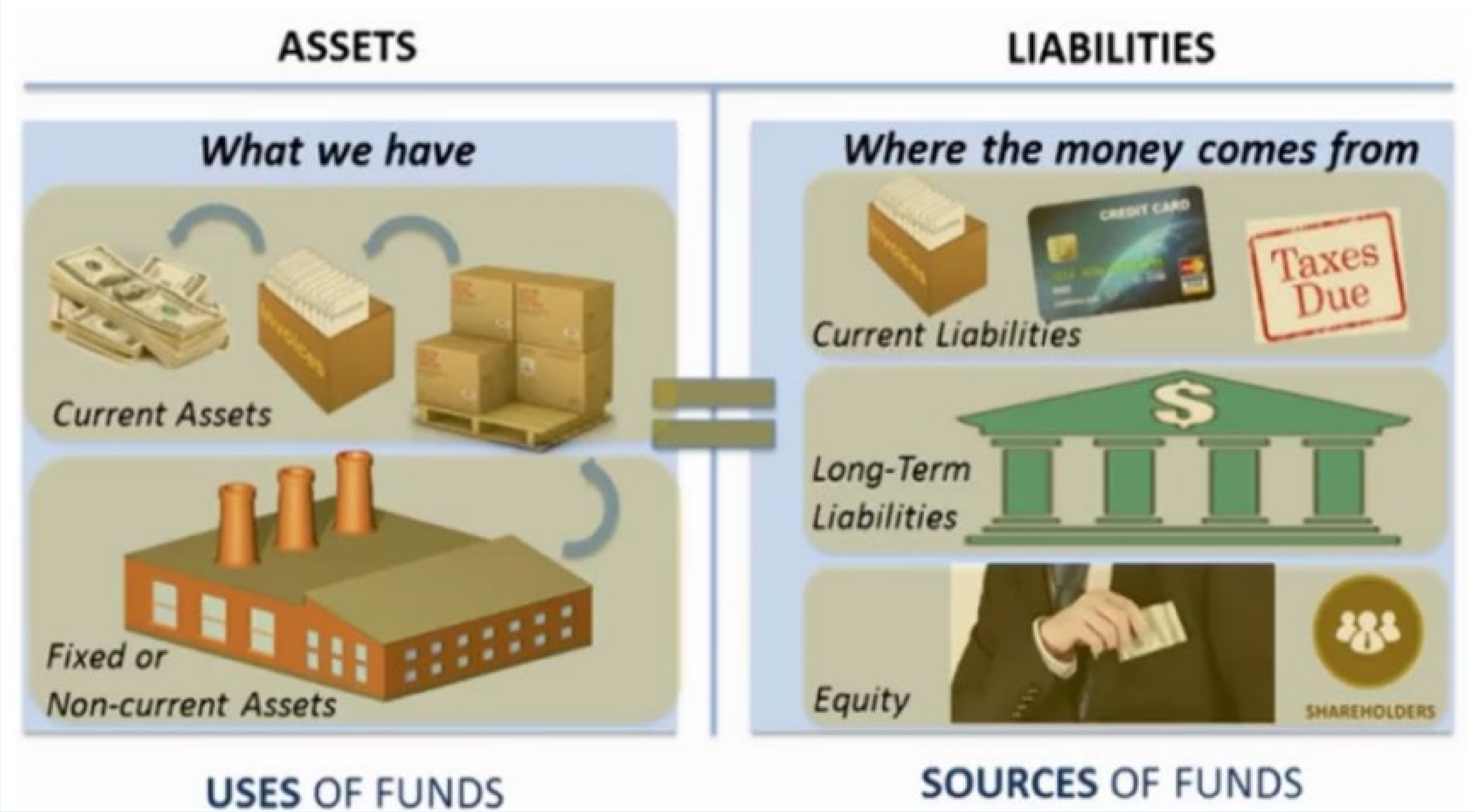
- Shareholder’s equity must equal assets minus liabilities.
- Shareholders equity is the WEALTH of the company.
- This equation must always balance

Balance Sheet

Shows how assets were financed

– Either by borrowing or owners equity

Balance Sheet



Balance Sheet

🟢 **Accounts Receivable (AR)**

- Money that a company has earned (by selling goods or services) but hasn't collected yet from customers.

- You have a lemonade stand. A customer drinks your lemonade today but says, "I'll pay you tomorrow."

- A software company invoices a client $1,000 for a subscription. The client has 30 days to pay. Until the cash comes in, that $1,000 sits in accounts receivable.

    - On the balance sheet, AR is listed as a **current asset** because it's expected to turn into cash soon.

🔴 **Accounts Payable (AP)**

- Money that a company owes to suppliers or vendors for things it bought on credit.

- You buy lemons from the grocery store, but you say, "I'll pay you next week."

- A restaurant orders ingredients worth $500 from a food supplier. The supplier says, "Pay us in 2 weeks." Until it's paid, that $500 sits in accounts payable.

    - On the balance sheet, AP is listed as a **current liability** because it's an obligation to pay in the near term.

Assets

ASSETS – Resources **owned** or **controlled** by a business that are expected to bring future economic benefits.

Intangible Assets – Non-physical resources with long-term value, such as **patents**, **trademarks**, **goodwill**, and **software**.

Fixed Assets (Property, Plant, and Equipment) – Long-term physical resources like **buildings**, **machinery**, **land**, and **equipment** used in operations.

Financial Assets – Investments such as **shares**, **bonds**, or **loans** that generate income or can be sold for cash.

Inventories – Goods held for sale, in production, or as raw materials used in manufacturing.

Accounts Receivables – Money owed to a company by its customers for sales made on credit.

Short-term Investments – Temporary investments (usually under 12 months) like marketable securities, easily convertible to cash.

Cash – Money in hand or in bank accounts that is readily available for use.

Assets

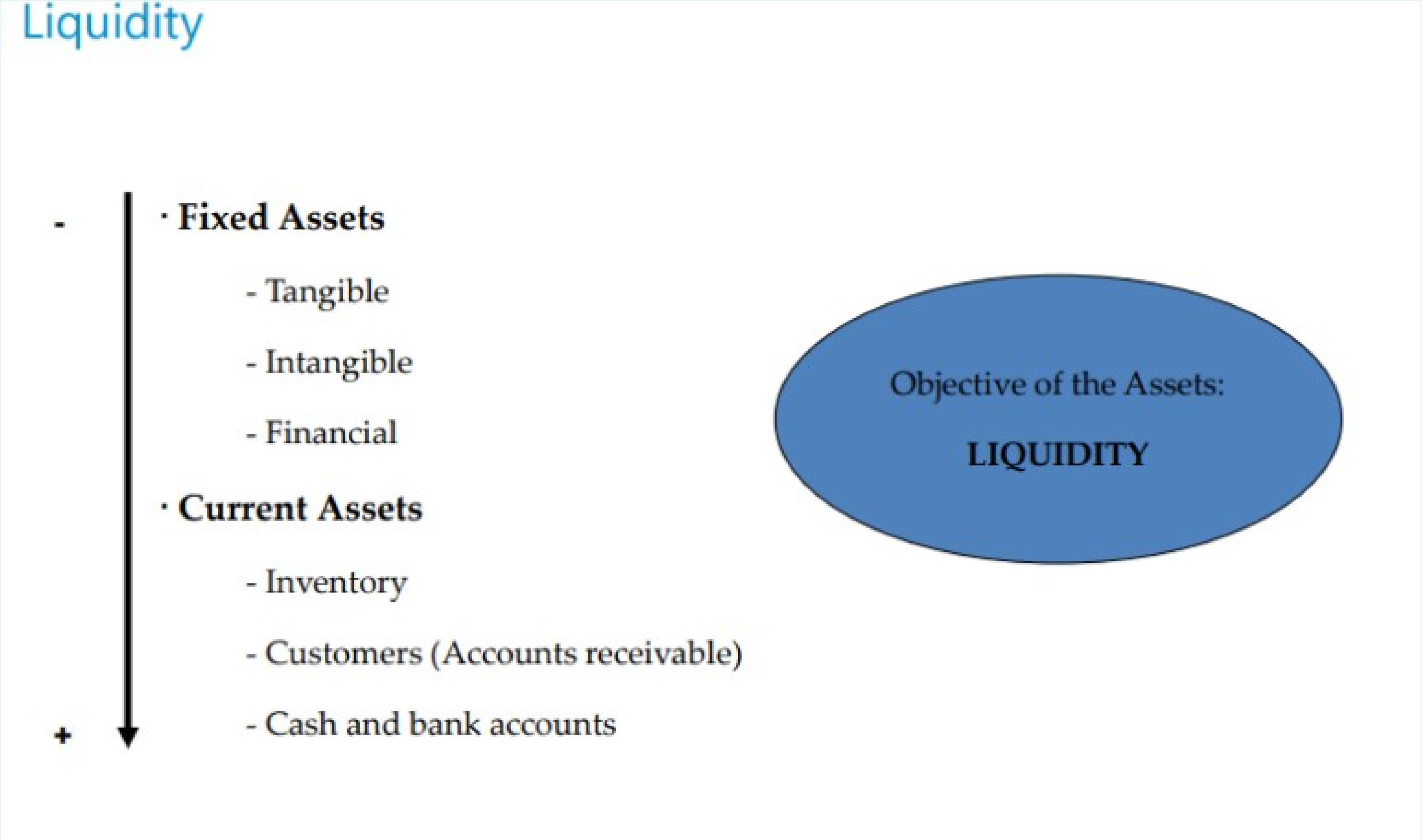
Tangible Assets – Physical resources a business owns that have measurable value and can be touched. Examples: buildings, machinery, vehicles, land, furniture.

Intangible Assets – Non-physical resources that still hold value and provide long-term benefits. Examples: patents, trademarks, goodwill, brand reputation, software.

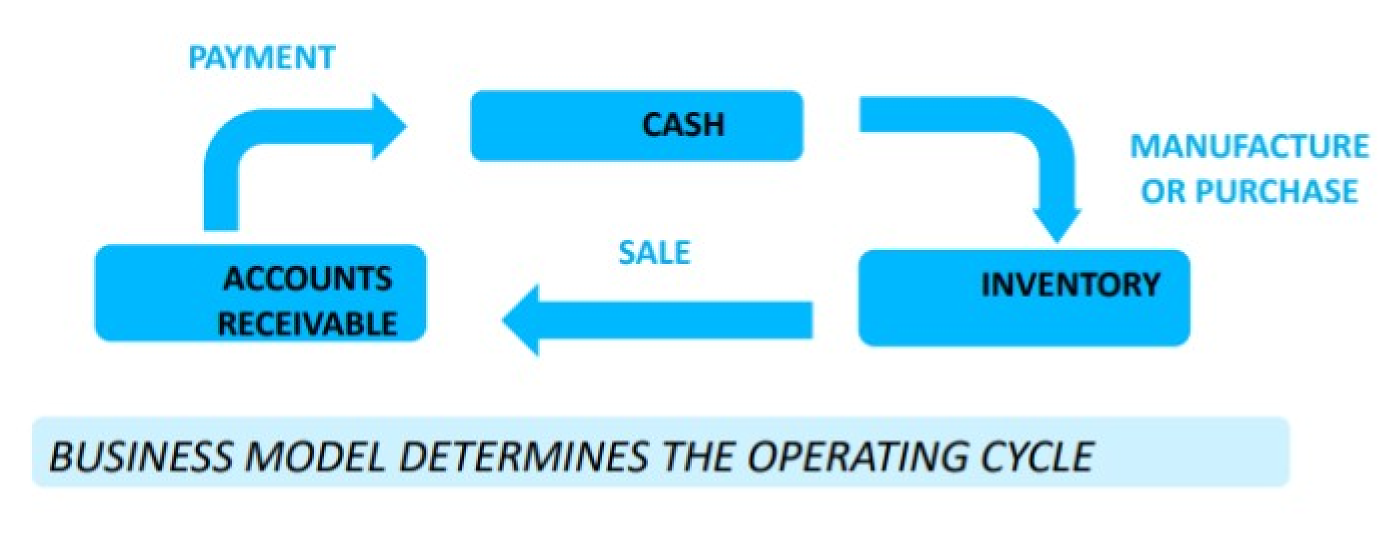
- Tangible = physical things you can touch

- Intangible = non-physical rights or values.

Assets Liquidity



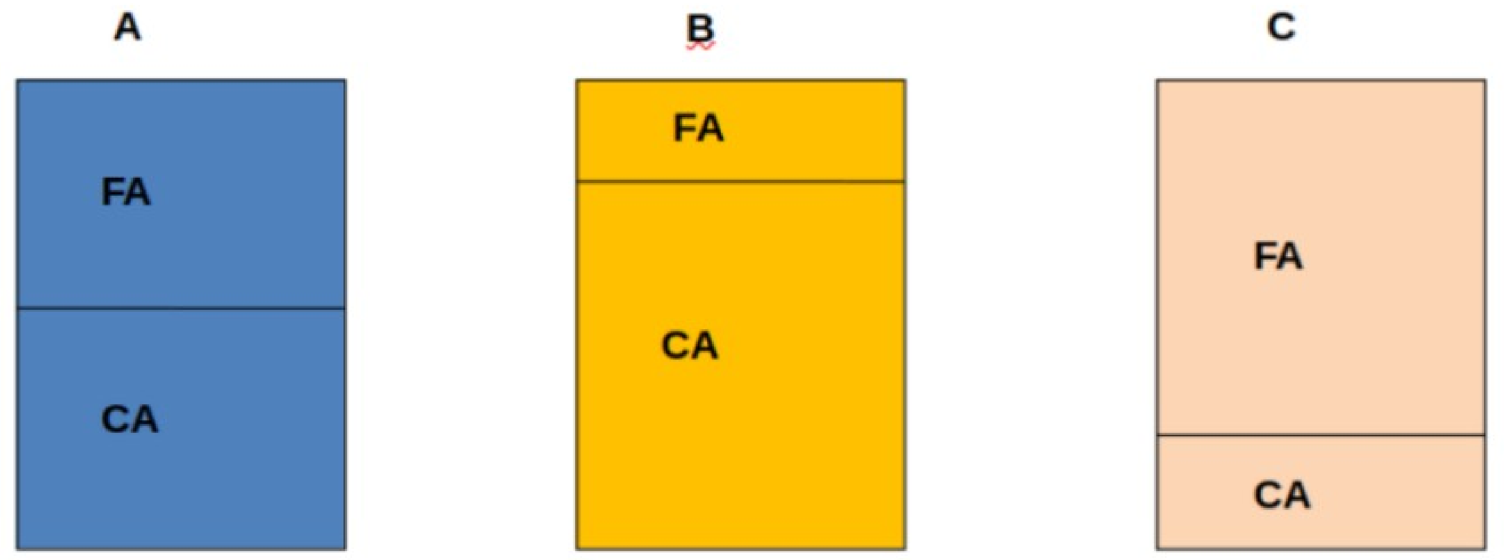
Assets


PAYMENT
CASH
MANUFACTURE
OR PURCHASE
SALE
ACCOUNTS
RECEIVABLE
INVENTORY
BUSINESS MODEL DETERMINES THE OPERATING CYCLE

Assets

Question

1) What types of companies would you classify into each of the following balance sheet asset structures?



Solutions in other slides

Liabilities & Equity

There two types of funding:

- Shareholders' equity; financial resources from the shareholders
- Long-term liabilities; are reasonably expected not to be liquidated within a year (long-term bonds, long-term leases, and long-term obligations,…)
- Current liabilities; are reasonably expected to be liquidated within a year (wages, taxes, accounts payables, short-term obligations,…)

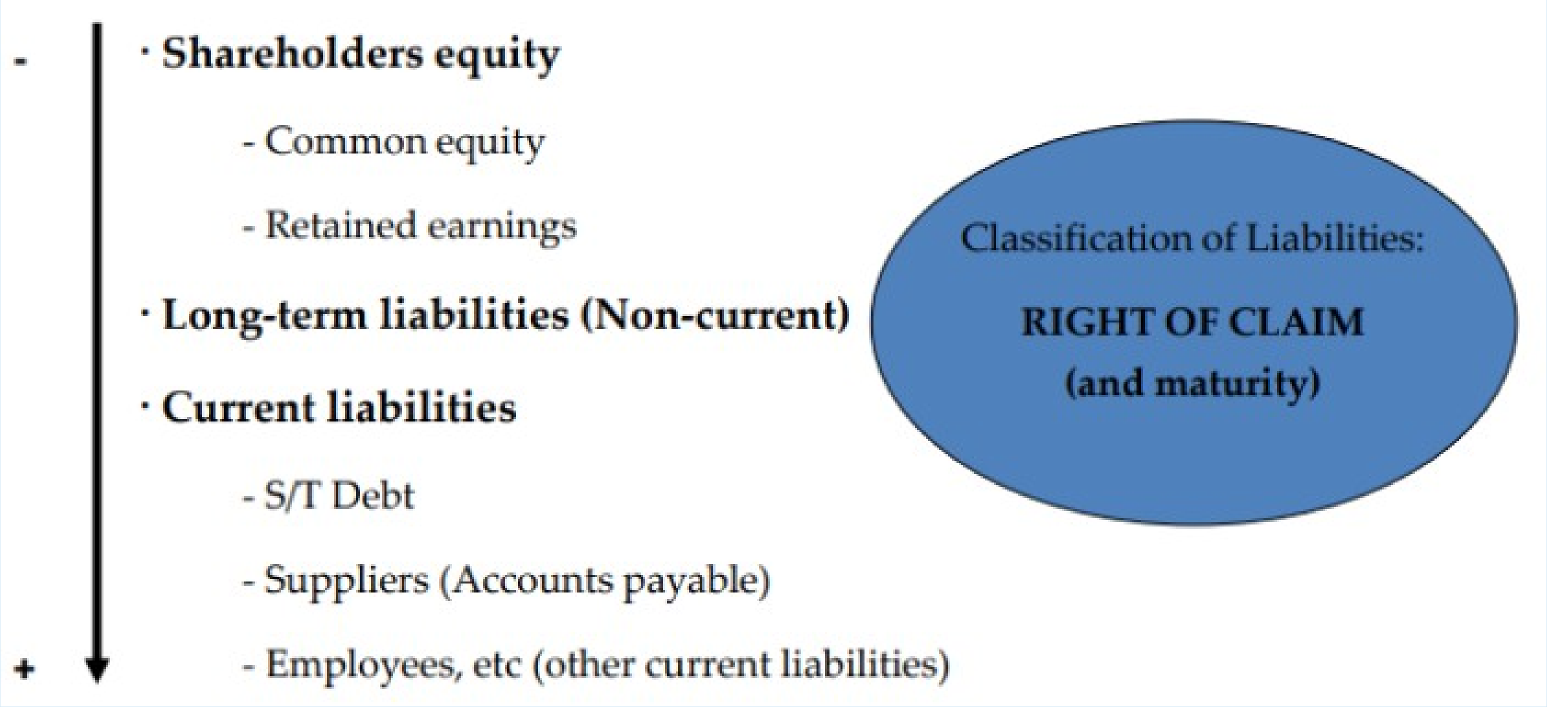
EQUITY & LIABILITIES

- Shareholders' equity

- Long-term debt
- Other long-term liabilities

- Short-term debt
- Accounts Payables
- Other current liabilities

Maturity


-
· Shareholders equity
- Common equity
- Retained earnings
· Long-term liabilities (Non-current)
· Current liabilities
- S/T Debt
- Suppliers (Accounts payable)
- Employees, etc (other current liabilities)
+
Classification of Liabilities:
RIGHT OF CLAIM
(and maturity)

Liabilities

LIABILITIES - Obligations a business owes to outsiders, usually settled with **cash**, **goods**, or **services**.

Current Liabilities – Debts due within 12 months (e.g., **accounts payable**, **short-term loans**).

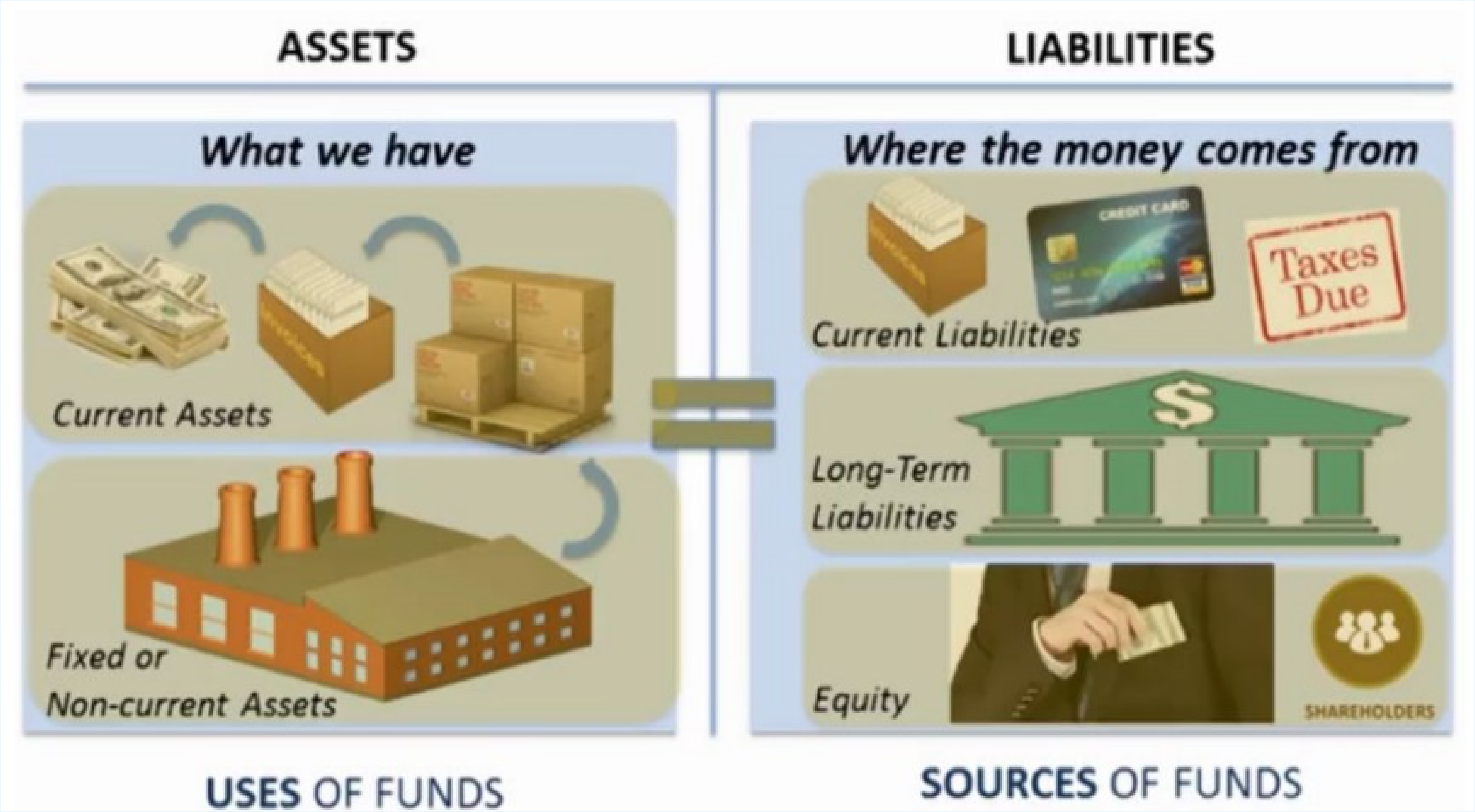
Non-current Liabilities – Long-term debts and obligations (e.g., **bonds payable**, **long-term loans**, **lease** obligations).

Accounts Payable – Money a business owes to suppliers for goods/services purchased on credit.

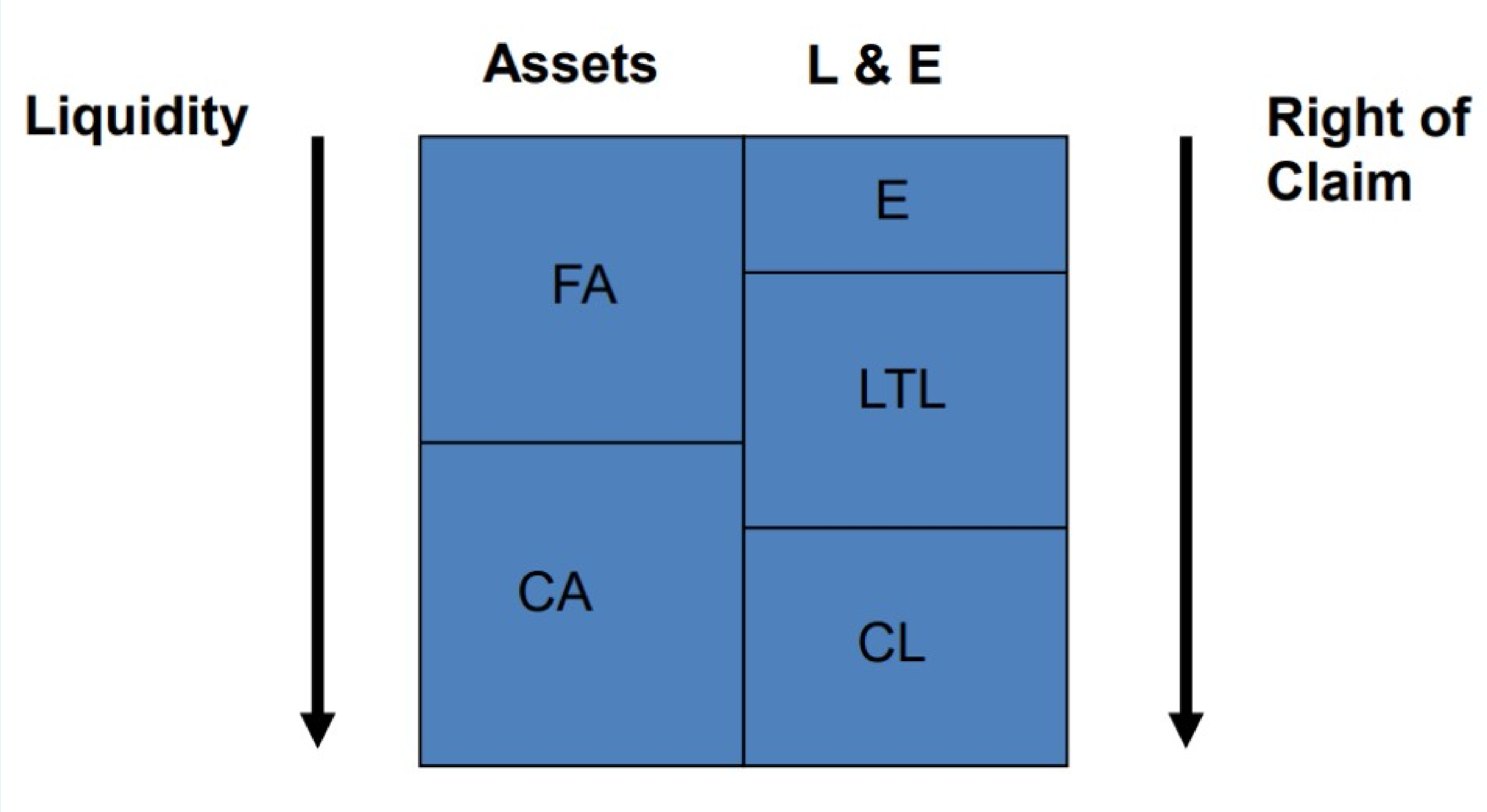
Accrued Expenses – Expenses incurred but not yet paid (e.g., **wages**, **taxes**, **interest**).

Long-term Debt – Borrowings due after one year (e.g., bank loans, bonds).

Balance Sheet

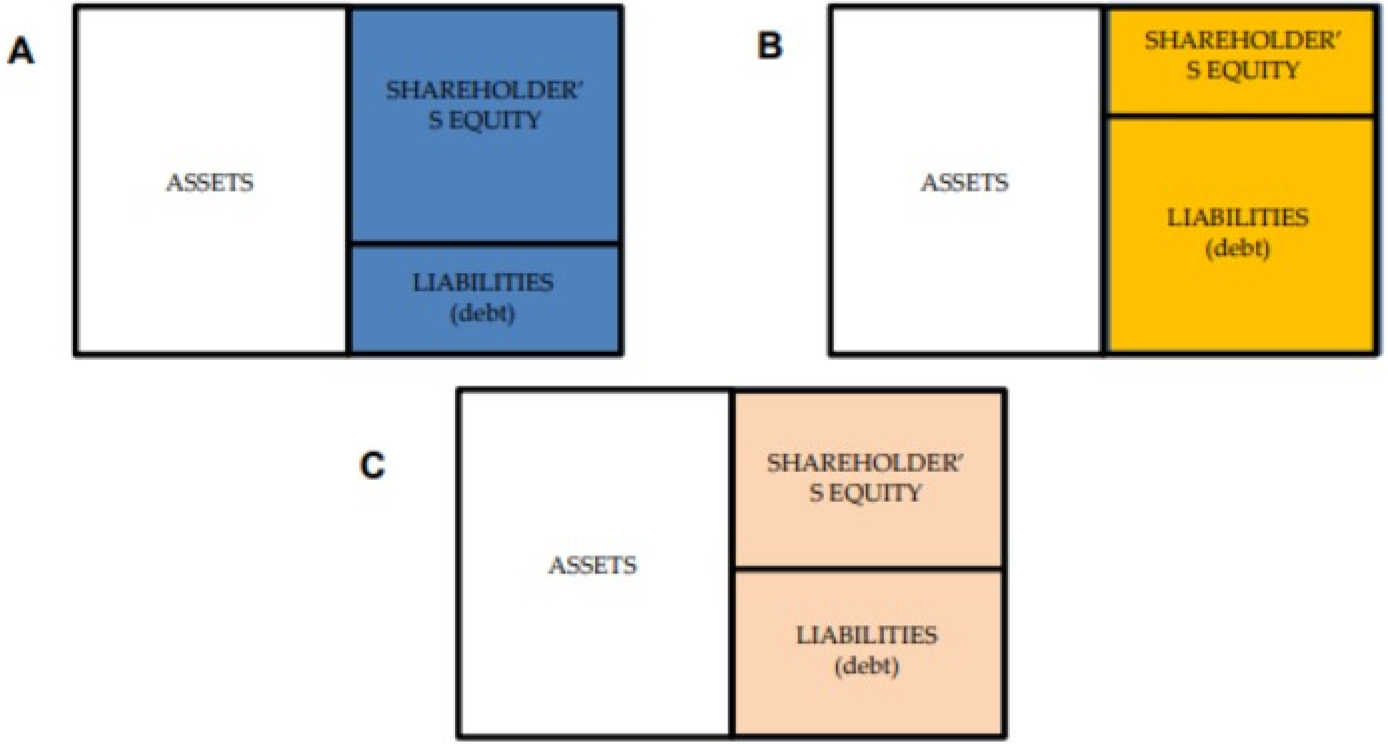


Liquidity vs Maturity



Question

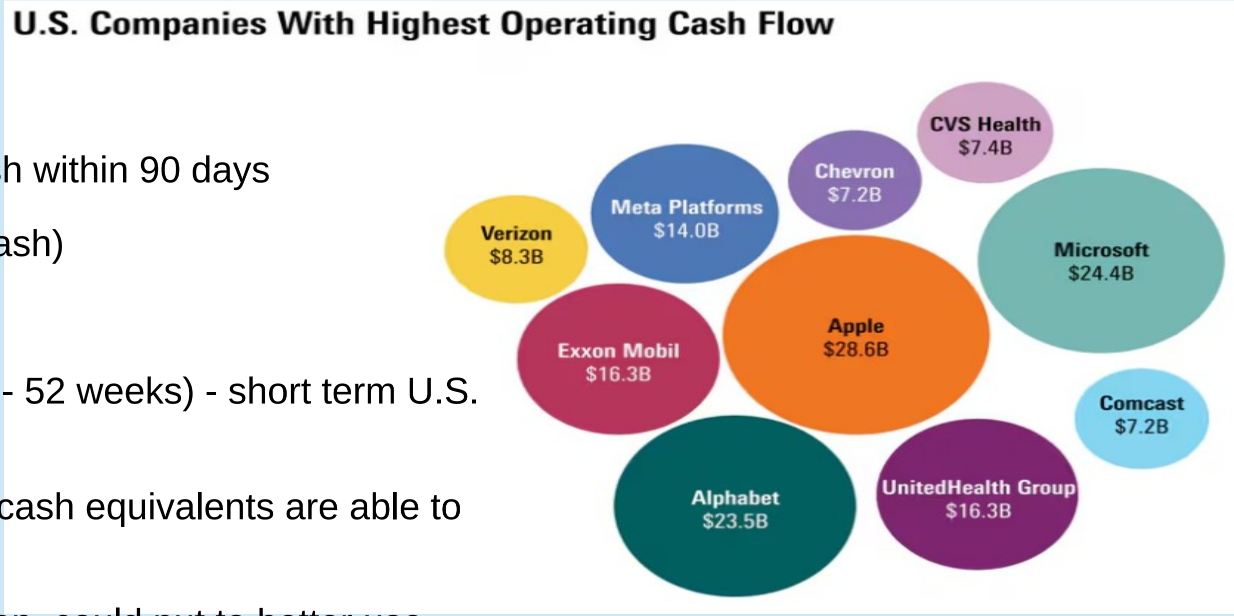
QUESTION 2: Which capital structure do you prefer?



Solutions in other slides

Current Assets

What are current assets?



Cash and cash equivalents

- Items which will be converted into cash within 90 days
- High liquidity (short time to turn into cash)
- Examples, cash, foreign currency
    - Treasury bills (terms between 4 - 52 weeks) - short term U.S. debt
- Note: Companies with high cash and cash equivalents are able to meet their short-term debt obligations

Too much cash is bad! (Inflation erosion, could put to better use (investment, R&D), inefficient capital allocation)

Current Assets

Marketable securities

- Liquid financial instruments
- Excess cash that is not needed immediately is invested into marketable securities.
- Earn a return on investment on liquid instruments.
- Changes in the price are included in earnings (buy low, sell high).
- Examples: Equity securities, debt securities (bonds).

Accounts Receivable

- Amounts due from customers (not collected yet)
- Goods get shipped to customers before payment
- Usually 30, 60 or 90 days to pay you.
- Some customers fail to pay! (financial difficulties)

Description	Amount ($)
Accounts receivable	158,375
Less: Doubtful accounts	(2,375)
Total	**156,000**

Current Assets

Inventory

• Raw materials (examples?)

• Work-in-progress (unfinished goods) - car production?

• Finished goods

• Reflects the cost of manufactured items for sale to customers

Prepaid expenses and other current assets

• Expenses that have already been paid upfront • Insurance, advertising, rent

• Typically has a contractual right to pay

• Its an asset "right to use"

• Bills the company has already paid for but not yet received

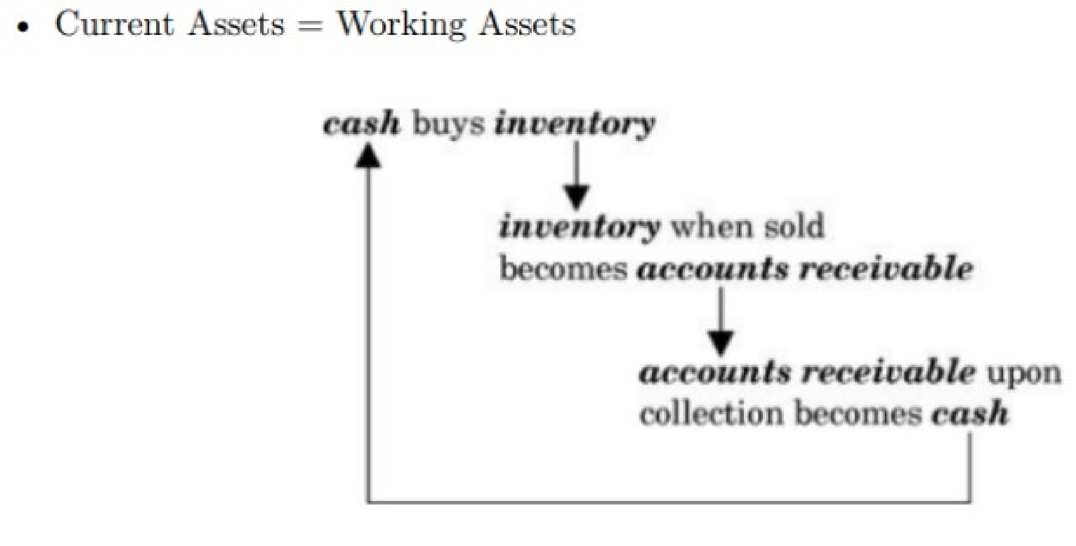
Current Assets

Total Current Assets

- Include, cash, marketable securities, accounts receivable, inventories and prepaid expenses

• Assets are “working” assets since they are liquid

• They will be converted in the near term into cash for other purposes • I.e. inventories, when sold become accounts receivable, receivables, upon collection, become cash, cash can then be used to pay company’s debt and operative expenses.



Non-Current Assets

Non-Current Assets (Fixed Assets)

- Not intended for sale quickly (or in the normal business cycle)

Property Plant and Equipment

- Used for manufacture, display, warehouse and transport the company's products and offices for employees.
- Includes, land, buildings and machinery, trucks.
- Report FA as costs minus depreciation accumulated
- No intent to sell these assets in the near term

Property, Plant and Equipment	**Amount ($)**
Land	30,000
Buildings	125,000
Machinery	200,000
Leasehold improvements	15,000
Furniture, fixtures, etc.	15,000
Total property, plant, and equipment	**385,000**

Non-Current Assets

Less: accumulated depreciation

- The practice of charging to, or expensing against income
- i.e. the cost of a fixed asset over its estimated useful life / productivity
- i.e. the decline in useful value of a fixed asset due to “wear and tear” over time.
- i.e. cost of PPE must be allocated over its expected useful like
- e.g. suppose a delivery truck costs $10,000 and is expected to last 5 years – “linear/straight line depreciation”

$2,000 is expensed each year to the Income Statement

Year 1

Description	Amount ($)
Truck (cost)	10,000
Less:	
Accumulated depreciation	(2,000)
Net depreciated cost	**8,000**

Year 2

Description	Amount ($)
Truck (cost)	10,000
Less:	
Accumulated depreciation	(4,000)
Net depreciated cost	**6,000**

Non-Current Assets

Intangible Assets

- “Intangibles” - have no physical existence, but have value to a company

- Examples of intangible assets?

Description	Amount ($)
Intangibles (goodwill, patents)	2,250
Less:	
Accumulated amortization	(300)
Net intangible assets	**1,950**

- Patents
- Trademark
- Copywrite
- Goodwill

– Represents the price of an aquired company exceeds the “fair value” of the related net assets acquired (i.e. Tech companies vs plastics manufactures) – I.e. excess is the brand, compamny name, reputation, customer base, intellectual capital

- Intangible assets are **amortized** (gradually reduced or written off)

Current Liabilities

Current Liabilities

Current liability is an obligation that is due and payable within 12 months.

- Companion to “current assets” since CA are a source of payment of current debts.

Accounts Payable

- Is the amount the company owes to its business creditors which they have bought goods and services (on open account)

Notes Payable

- Money owed to a bank or lender (due within 1 year)

Current Liabilities

Accrued Expenses

- Salaries **owed** to employees
- Interest **owed** on funds borrowed from banks
- Legal fees **owed**
- Expenses that are **owed**/unpaid at the date of the balance sheet

Shareholders Equity

Shareholders Equity

- Total equity/ownership that shareholders have in the corporation.
- Its the companies value after subtracting its liabilities.

Preferred Stock

- Equity ownership which has preference over common shares
- Receive dividends sooner • More right to assets in case of liquidation

Income Statement

Description	Calculation	Formula
Net Sales		1
Cost of Goods Sold (COGS)		2
Gross Margin	Net Sales - COGS	1 - 2 = 3
Sales & Marketing		4
Research & Development		5
General & Administrative		6
Operating Expenses	S&M + R&D + G&A	4 + 5 + 6 = 7
Income from Operations	Gross Margin - Opex	3 - 7 = 8
Interest Income		9
Income Taxes		10
Net Income	Op Income + Interest - Taxes	8 + 9 - 10 = 11

Detective I/S question

Accounting Ledger

Accounting Ledger

- A ledger account is a record that contains all transactions in a company's financial records.
- Contains all information about an account's opening and closing balances.
- Contains information on periodical debit and credit adjustments based on daily journal entries.

Debit

- Debit is an entry made on the left side of an account.
- Increases an asset or expenses
- Decreases equity, liabilities or revenue accounts

Credit

- Credit is an entry made on the right side of an account.
- Increases equity, liabilities or revenue accounts
- Decreases an asset or expenses.

Accounting Ledger

- Can contain some of the following "accounts"

Cash	Debt	Interest Income
Inventory	Accounts Payable	Opex
Fixed Assets	Non-fixed assets	Administrative Expenses
Accounts Receivable	Sales or Revenue	Depreciation
Capital	Dividend	Taxes

Credit and Debit

How credit and debits affect different accounts.

Account	Increased By	Decreased By
Assets	Debit	Credit
Expenses	Debit	Credit
Liabilities	Credit	Debit
Equity	Credit	Debit
Revenue	Credit	Debit

Example ledger

Date	Account	Debit	Credit
X/XX/XXXX	Account	X	
	Opposite Account		X

Go to accounting ledger questions

Example (1)

• Initial capital contributed 100k •

Month 1 – Hire staff 2k

– Office supplies 2k –

Furniture 2k –

PC 3k –

Marketing 5k –

Revenues 30k

1) Construct the T-accounts
2) Construct the Trial Balanace
3) Constructe the I/S and B/S

Solution on paper

Example (2)

- Invested $100 cash in a business • Purchased a used car for $2000
- Purchased supplies on account forr $500
- Paid our credit of $500 from purchase of supplies
- Paid $350 cash for advertising
- Billed a customer $5000 for services
- Received $2000 payment in cash from the $5000 billed to the customer

Example (3)

1) Paid rent €5000

2) Paid salary €10,000

3) Cash withdrawal €50,000 (money out of the business)

4) Paid income tax €70,000

5) Comission received € 25,000

6) Comission Paid € 10,000

7) Purchased PC with cheque €20,000

8) Purchased goods with cash €50,000

9) Sold goods for cash €100,000

10) Depreciation on machinary @ 10%, cost 5,000,000

Example (4)

- A firm is incorporated on 1/1/22, initial capital contributed by shareholders is 10.000€ and deposited in the company’s bank account.
- 1/1/22: A machine is bought for 1.000€, paid in cash.
- 1/1/22: A truck is bought for 5.000€, on short-term credit.
- 31/12/22: The machine is sold for 800€, paid in cash. Amortize?
- 31/12/22: The truck is sold for 4.000€ on short-term credit. Amortize?
- Merchandise purchased for 200€, paid in cash.
- Merchandise purchased for 200€ on short-term credit.
- A consultant is hired for a 1 week project and paid 800€.
- The firm sold 10.000€ of their products in 2022 (half paid in cash and half still owed by clients).