



Essential insights for Data Analysts in Finance

Busting finance jargon

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Basic Financial Elements

Assets: Resources owned by FinCap that have economic value. For FinCap Solutions, assets include things like office equipment, investments, and accounts receivable from clients.

- **Current Assets:** Cash or other resources that are expected to be converted to cash within a year, like our receivables from clients. Cash in the bank and **short-term investments** expected to be liquidated within a year, like Treasury bills.
- **Fixed Assets:** **Long-term assets** like our office buildings and computing infrastructure. Long-term investments such as office buildings
- **Cash and Cash Equivalents:** **Liquid assets**, such as the money in our bank accounts or short-term government bonds. Money market funds and commercial paper held by FinCap as part of its liquidity management



Current Assets



Fixed Assets



Cash

Essential Concepts

Amortization: Gradual reduction of a debt over a period of time by periodic payments of principal and interest sufficient to repay the loan by maturity.

FinCap has a \$10 million loan amortized over 10 years, meaning it will pay \$1 million annually in principal, plus interest.

Depreciation: Reflects the cost of using fixed assets over their useful life, impacting the value of assets on our balance sheet and reducing taxable income.

FinCap depreciates its \$10 million office building over 20 years, which means an annual depreciation expense of \$500,000.

Depreciation, Amortisation, and Depletion



Depreciation

Cost reduction spread of the useful life of a tangible asset



Amortization

Deduction of the intangible assets



Depletion

Extracting cost of resources

Essential Concepts

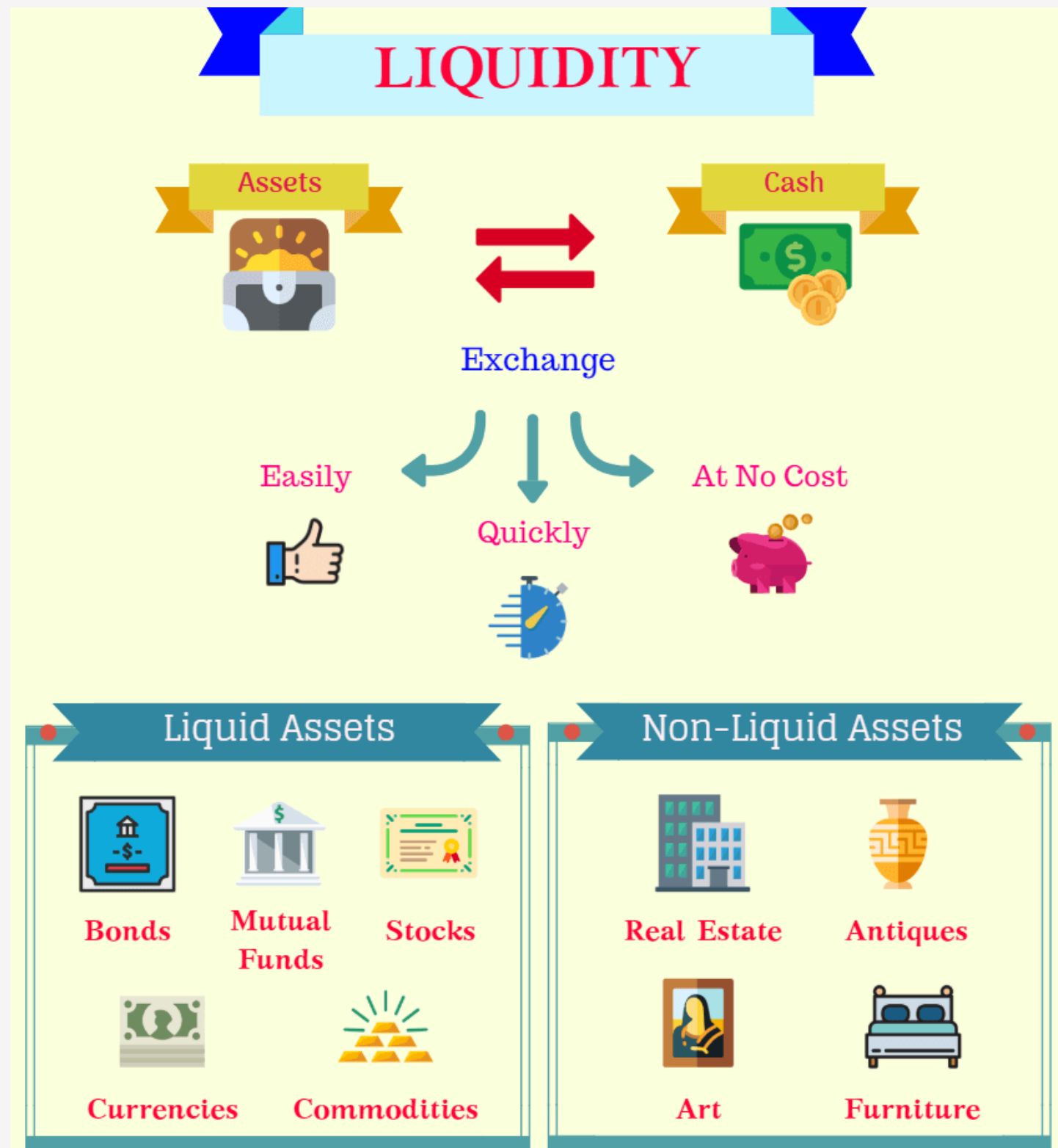
Net Worth: The **difference between total assets and total liabilities**, indicating the financial health of our company.
Calculated by subtracting total liabilities (\$2.4 million) from total assets (\$3.05 million), FinCap’s net worth is \$650,000.

	A	B	C
17			
18	Total Assets	\$3,050,000	
22			
23	Total Liabilities	\$2,400,000	
24			
25	Net Worth is calculated using the formula given below		
26	Net Worth = Total Assets – Total Liabilities		
27			
28	Net Worth Formula	=B18-B23	
29	Net Worth	\$650,000	
30			

Essential Concepts

Liquidity: The ease with which FinCap's **assets** **can be converted into cash**, essential for maintaining smooth operations.

FinCap ensures liquidity by maintaining \$50 million in cash and cash equivalents, allowing quick response to payment obligations or investment opportunities.



Investments

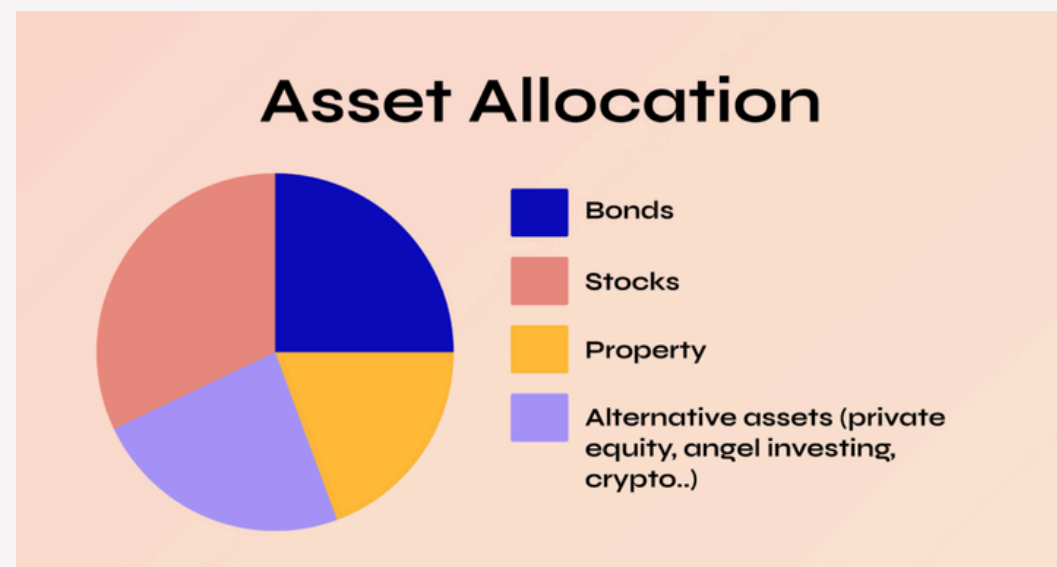
- **Bonds:** Debt investments where **FinCap lends money to an entity** (corporate or governmental) that borrows the funds for a defined period at a variable or fixed interest rate.
- FinCap purchases government bonds, which are **loans to the government** that pay interest over a specified period before returning the principal.
- **Stocks:** **Equity investments** that represent ownership in a company; FinCap holds these in various sectors to diversify client portfolios.
- FinCap holds shares in various technology firms, representing ownership portions of these companies.
- **Asset Allocation:** The **strategy of distributing investments** among different categories like stocks, bonds, and cash to optimize risk and return.
- FinCap diversifies its investments across different assets like stocks (60%), bonds (30%), and cash equivalents (10%) to balance risk and return.



Government
Bonds



Stocks



Asset allocation

Financial Statements and metrics

The Balance Statement

Balance Sheet: A snapshot of FinCap’s **financial standing at any given time**, detailing assets, liabilities, and equity.

The Balance Sheet Equation:

Assets = Liabilities + Equity

This fundamental equation must always balance.

Assets	This Year	Last Year
Current assets		
Cash and cash equivalents	\$ 10,000	\$ 10,000
Accounts receivable	35,000	30,000
Inventory	25,000	20,000
Total current assets	70,000	60,000
Fixed assets		
Plants and machinery	\$ 20,000	\$ 20,000
Less depreciation	-12,000	-10,000
Land	8,000	8,000
Intangible assets	2,000	1,500
Total assets	88,000	79,500
	=	
Liabilities and Shareholders' Equity		
Liabilities		
Accounts payable	\$ 20,000	\$ 15,000
Taxes payable	5,000	4,500
Long-term bonds issued	15,000	10,000
Total liabilities	40,000	29,500
	+	
Shareholder's equity		
Common stock	\$ 40,000	\$ 40,000
Retained earnings	8,000	10,000
Total shareholder's equity	48,000	50,000
Liabilities and shareholders' equity	\$ 88,000	\$ 79,500

Financial Statements and metrics

The Income Statement

Income Statement: A report showing our **earnings, expenses, and profits** over a specific period, reflecting operational efficiency.

COMPANY B INCOME STATEMENT

For Year Ended September 28, 2019 (In thousands)

NET SALES	\$ 4,358,100
COST OF SALES	2,738,714
GROSS PROFIT	1,619,386
SELLING AND OPERATING EXPENSES	560,430
GENERAL AND ADMINISTRATIVE EXPENSES	293,729
TOTAL OPERATING EXPENSES	854,159
OPERATING INCOME	765,227
OTHER INCOME	960
GAIN (LOSS) ON FINANCIAL INSTRUMENTS	5,513
(LOSS) GAIN ON FOREIGN CURRENCY	(12,649)
INTEREST EXPENSE	(18,177)
INCOME BEFORE TAXES	740,874
INCOME TAX EXPENSE	257,642
NET INCOME	\$ 483,232

Financial Statements and metrics

The Cash Flow Statement

Cash Flow Statement: Breaks down the **cash inflows and outflows** into operating, investing, and financing activities:

Operating Cash Flow: Cash generated from our **core business activities**.

Investing Cash Flow: Cash used for or generated from investments like **purchasing or selling fixed assets**.

Financing Cash Flow: Cash movements related to funding the business, such as **issuing debt or paying dividends**.

Operating Activities	
Net Income	\$19,600
Adjustments to reconcile Net Income to Net Cash provided by operations:	
Credit Card	\$2,000
Accrued Expenses	\$500
Payroll Liability	\$5,000
Reimbursement Liability	\$100
Total Adjustments to reconcile Net Income to Net Cash provided by operations:	\$7,600
Net Cash provided by operating activities	\$27,200
Investing Activities	
Computers & Equipment	-\$1,500
Net Cash provided by investing activities	-\$1,500
Financing Activities	
Preferred Stock	\$5,000
Net Cash provided by financing activities	\$5,000
Net Cash Increase for Period	\$30,700
Cash at beginning of period	\$45,000
Cash at end of period	\$75,700

Profitability and Performance Metrics

EBITDA: Earnings before interest, taxes, depreciation, and amortization. This measure provides insight into org’s operational profitability before the impact of financial and accounting decisions.

Income Statement

All figures in USD millions unless stated		Year 1	Year 2	Year 3
Revenue		98,671	104,591	110,867
Cost of Goods Sold		44,402	47,066	49,890
Gross Profit		54,269	57,525	60,977
Depreciation	+	3,157	3,347	3,548
SG&A		32,063	33,346	34,680
Interest	+	2,269	2,406	2,550
Income Before Taxes		16,779	18,427	20,199
Total Taxes	+	4,195	4,607	5,050
Net Income	+	12,584	13,820	15,150
EBITDA	=	22,206	24,179	26,297

Profitability and Performance Metrics

ROI (Return on Investment): A **measure of the gain or loss generated on an investment** relative to the amount of money invested.

FinCap invested \$100 million in a new venture and gained \$120 million, yielding a 20% ROI.

ROI formulas

Use the first formula if you already know your net return on investment. If not, formula two would be your starting point.

$$\text{ROI} = \frac{\text{Net return}}{\text{Cost of investment}} \times 100$$

$$\text{ROI} = \frac{\text{Revenue} - \text{Cost of investment}}{\text{Cost of investment}} \times 100$$

Profitability and Performance Metrics

Profit Margin: Including gross profit margin (revenue minus cost of goods sold) and net profit margin (the percentage of revenue remaining after all expenses).

- **Gross Profit Margin:** With \$400 million in revenues and \$300 million in costs, the gross profit margin is 25%.
- **Net Profit Margin:** From the net income of \$50 million and revenues of \$400 million, the net profit margin is 12.5%.

	Year 5	Year 4	Year 3	Year 2	Year 1
Revenue	14,953,224	11,055,192	6,009,403	3,036,120	2,065,851
Total Revenue	14,953,224	11,055,192	6,009,403	3,036,120	2,065,851
Cost of Revenue, Total	8,368,961				
Gross Profit	6,584,263				
Selling/General/Administrative Expenses, Total	1,849,000				
Research & Development	964,842				
Depreciation/Amortization	310,357				
Unusual Expenses (Income)	163,800				
Other Operating Expenses, Total	0.0				
Operating Income	3,296,264				
Interest Expense	100				
Income Before Tax	3,296,164				
Income Tax - Total	809,366				
Income After Tax	2,486,798				
Total Extraordinary Items	0.0				
Net Income	2,486,798				

Three key profitability ratios

$$\text{Gross profit ratio} = \frac{6,584,263}{14,953,224} = 44.0\%$$

$$\text{Operating profit ratio} = \frac{3,296,264}{14,953,224} = 22.0\%$$

$$\text{Net profit ratio} = \frac{2,486,798}{14,953,224} = 16.6\%$$

Planning and Analysis

MTD, QTD, YTD: Metrics that **track financial performance from the start of the current month, quarter, and year respectively.**

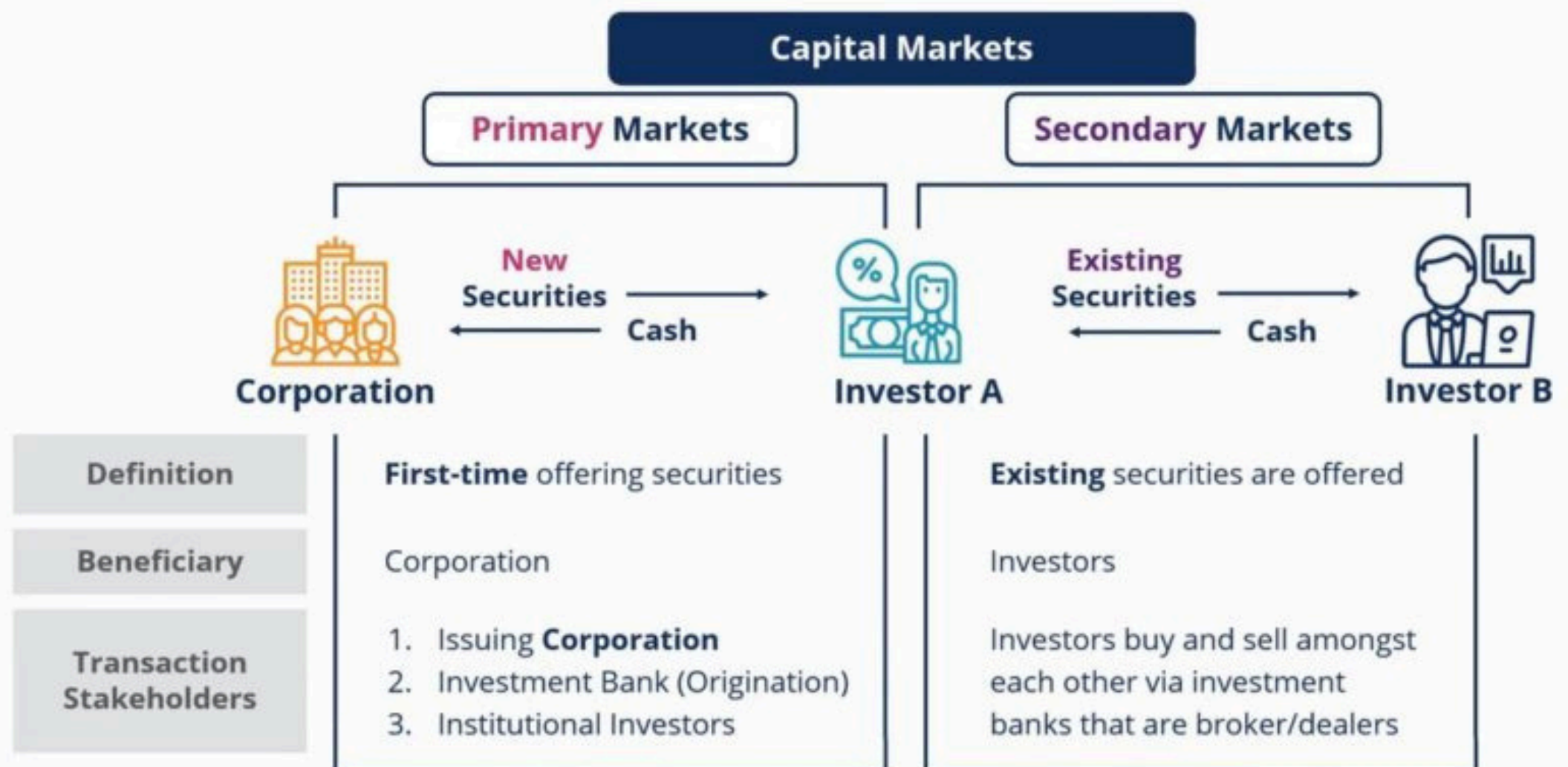
Plan, Budget, Forecast, LE (Latest Estimate): Tools we use at org to **plan financially, allocate resources, predict future performance, and update our expectations.**

Variance: The **difference between planned figures and actual figures**, which can be favorable or unfavorable.

Market Understanding

Capital Market: Where **debt or equity securities are traded**, providing companies the ability to raise capital.

Primary vs. Secondary Markets



Market Understanding

Institutional Investors: Large organizations (like insurance companies or pension funds) **that invest heavily in the markets**, often dealing with large volumes like those managed by FinCap.



★ Pension
Funds



★ Investment
Companies



★ Insurance
Companies



★ Savings
Institutions



★ Foundations

Market Understanding

Mutual Funds, Hedge Funds: Investment vehicles that **pool money from many investors to purchase securities, managed by our investment professionals** to achieve specific financial goals.

MUTUAL FUNDS VS. HEGDE FUNDS

CHARACTERISTICS	MUTUAL FUNDS	HEDGE FUNDS
Availability	Available to general public	Available only to large corpus investors
Risk Management	Low degree of risk management	High degree of risk management
Mentality	Investor mentality (buy & hold)	Trading mentality (opportunistic)
Sensitivity	Low sensitivity to price entry & exit point	High sensitivity to price entry & exit point
Taxation	Tax saving option available	Heavy taxation