# Business & Finance Essentials

A concise cheat sheet covering essential concepts and formulas in business and finance, designed for quick reference.

## Financial Accounting Basics

### Key Financial Statements

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| **Income Statement** | Reports a company's financial performance over a specific period through revenues, expenses, gains, and losses.<br><br>Formula: `Revenue - Expenses = Net Income` |
| **Balance Sheet** | A snapshot of a company's assets, liabilities, and equity at a specific point in time.<br><br>Formula: `Assets = Liabilities + Equity` |
| **Cash Flow Statement** | Tracks the movement of cash both into and out of a company over a period of time.<br><br>Sections: Operating Activities, Investing Activities, Financing Activities |

### Accounting Equation

The fundamental accounting equation forms the basis for the balance sheet:

`Assets = Liabilities + Equity`

- **Assets**: Resources owned by the company.
- **Liabilities**: Obligations to creditors.
- **Equity**: The owners' stake in the company.

### Important Ratios

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| **Current Ratio** | Measures a company's ability to pay short-term obligations.<br><br>Formula: `Current Assets / Current Liabilities` |
| **Debt-to-Equity Ratio** | Indicates the proportion of debt and equity used to finance a company's assets.<br><br>Formula: `Total Debt / Total Equity` |
| **Profit Margin** | Shows how much out of each dollar of sales a company actually keeps in earnings.<br><br>Formula: `Net Income / Revenue` |

## Corporate Finance

### Capital Budgeting

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| **Net Present Value (NPV)** | Calculates the present value of expected cash inflows less the present value of expected cash outflows.<br><br>Formula: `NPV = ∑ (Cash Flow / (1 + Discount Rate)^Period) - Initial Investment` |
| **Internal Rate of Return (IRR)** | The discount rate that makes the NPV of all cash flows from a particular project equal to zero. Used to evaluate the attractiveness of a project or investment.<br><br>Find the rate where `NPV = 0` |
| **Payback Period** | The length of time required to recover the cost of an investment.<br><br>Formula: `Initial Investment / Annual Cash Flow` |

### Working Capital Management

Managing current assets and current liabilities to ensure a company has enough liquidity to meet its short-term obligations.

Key components include:

- Inventory Management
- Accounts Receivable Management
- Accounts Payable Management

### Cost of Capital

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| **Weighted Average Cost of Capital (WACC)** | The average rate of return a company expects to compensate all its different investors.<br><br>Formula: `WACC = (E/V) * Re + (D/V) * Rd * (1 - Tc)`<br><br>Where:<br>• E = Market value of equity<br>• D = Market value of debt<br>• V = Total value of capital (E + D)<br>• Re = Cost of equity<br>• Rd = Cost of debt<br>• Tc = Corporate tax rate |

## Investment Analysis

### Valuation Metrics

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| **Price-to-Earnings (P/E) Ratio** | Compares a company's stock price to its earnings per share.<br><br>Formula: `Stock Price / Earnings Per Share (EPS)` |
| **Price-to-Book (P/B) Ratio** | Compares a company's market capitalization to its book value of equity.<br><br>Formula: `Stock Price / Book Value Per Share` |
| **Dividend Yield** | Measures the return on investment from dividends.<br><br>Formula: `Annual Dividends Per Share / Stock Price` |

### Risk and Return

Understanding the relationship between risk and return is crucial for investment decisions.

- **Risk**: The uncertainty of future returns.
- **Return**: The gain or loss on an investment over a period.

### Time Value of Money

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|---|---|
| **Present Value (PV)** | The current value of a future sum of money or stream of cash flows, given a specified rate of return.<br><br>Formula: `PV = FV / (1 + r)^n`<br><br>Where:<br>• FV = Future Value<br>• r = Discount rate<br>• n = Number of periods |
| **Future Value (FV)** | The value of an asset or investment at a specified date in the future, based on an assumed rate of growth.<br><br>Formula: `FV = PV * (1 + r)^n` |

## Economic Indicators

## Key Economic Indicators

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|---|---|
| **GDP (Gross Domestic Product)** | The total value of goods and services produced in a country in a year. A primary indicator of economic health.<br><br>Increased GDP = Economic Growth |
| **Inflation Rate** | The rate at which the general level of prices for goods and services is rising, and subsequently, purchasing power is falling.<br><br>Measured by the Consumer Price Index (CPI) |
| **Unemployment Rate** | The percentage of the labor force that is unemployed. Indicates the health of the labor market.<br><br>Lower Unemployment Rate = Healthier Economy |

## Monetary Policy

Actions undertaken by a central bank to manipulate the money supply and credit conditions to stimulate or restrain economic activity.

Tools include:

- Interest Rate Adjustments
- Reserve Requirements
- Open Market Operations

## Fiscal Policy

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|---|---|
| **Government Spending** | Government expenditure on goods and services.<br><br>Increased spending can stimulate economic growth. |
| **Taxation** | Levying taxes to finance government spending.<br><br>Tax cuts can stimulate consumer spending and investment. |