

Ratio analysis and Cash flow statement**Ratio analysis**

Ratio analysis—the foundation of fundamental analysis—helps to gain a deeper insight into the financial health and the current and probable performance of the company being studied. For this insight, the analysts use the quantitative method where the information recorded in the company's financial statements are compared and analyzed. And there are certain formulae that are used for the same.

Objectives of Ratio Analysis

Interpreting the financial statements and other financial data is essential for all stakeholders of an entity. Ratio Analysis hence becomes a vital tool for financial analysis and financial management. Let us take a look at some objectives that ratio analysis fulfils.

1] Measure of Profitability

Profit is the ultimate aim of every organization. So if I say that ABC firm earned a profit of 5 lakhs last year, how will you determine if that is a good or bad figure? Context is required to measure profitability, which is provided by ratio analysis. Gross Profit Ratios, Net Profit Ratio, Expense ratio etc provide a measure of the profitability of a firm. The management can use such ratios to find out problem areas and improve upon them.

2] Evaluation of Operational Efficiency

Certain ratios highlight the degree of efficiency of a company in the management of its assets and other resources. It is important that assets and financial resources be allocated and used efficiently to avoid unnecessary expenses. Turnover Ratios and Efficiency Ratios will point out any mismanagement of assets.

3] Ensure Suitable Liquidity

Every firm has to ensure that some of its assets are liquid, in case it requires cash immediately. So the liquidity of a firm is measured by ratios such as Current ratio and Quick Ratio. These help a firm maintain the required level of short-term solvency.

4] Overall Financial Strength

There are some ratios that help determine the firm's long-term solvency. They help determine if there is a strain on the assets of a firm or if the firm is over-leveraged. The management will need to quickly rectify the situation to avoid liquidation in the future. Examples of such ratios are Debt-Equity Ratio, Leverage ratios etc.

5] Comparison

The organizations' ratios must be compared to the industry standards to get a better understanding of its financial health and fiscal position. The management can take corrective action if the standards of the market are not met by the company. The ratios can also be compared to the previous years' ratio's to see the progress of the company. This is known as trend analysis.

Advantages of Ratio Analysis

When employed correctly, ratio analysis throws light on many problems of the firm and also highlights some positives. Ratios are essentially whistleblowers, they draw the managements attention towards issues needing attention. Let us take a look at some advantages of ratio analysis.

- Ratio analysis will help validate or disprove the financing, investment and operating decisions of the firm. They summarize the financial statement into comparative figures, thus helping the management to compare and evaluate the financial position of the firm and the results of their decisions.
- It simplifies complex accounting statements and financial data into simple ratios of operating efficiency, financial efficiency, solvency, long-term positions etc.
- Ratio analysis help identify problem areas and bring the attention of the management to such areas. Some of the information is lost in the complex accounting statements, and ratios will help pinpoint such problems.
- Allows the company to conduct *comparisons with other firms, industry standards, intra-firm comparisons* etc. This will help the organization better understand its fiscal position in the economy.

Limitations of Ratio Analysis

While ratios are very important tools of financial analysis, they do have some limitations, such as

- The firm can make some year-end changes to their financial statements, to improve their ratios. Then the ratios end up being nothing but *window dressing*.
- Ratios *ignore the price level changes due to inflation*. Many ratios are calculated using historical costs, and they overlook the changes in price level between the periods. This does not reflect the correct financial situation.
- Accounting ratios completely *ignore the qualitative aspects of the firm*. They only take into consideration the monetary aspects (quantitative)
- There are *no standard definitions* of the ratios. So firms may be using different formulas for the ratios. One such example is Current Ratio, where some firms take into consideration all current liabilities but others ignore bank overdrafts from current liabilities while calculating current ratio
- And finally, accounting ratios *do not resolve any financial problems* of the company. They are a means to the end, not the actual solution.

In this blog, we shall discuss various Ratio Analysis, the various Ratios Formulae, and their importance. We would look into the classification of ratios, where we have explained the importance of using various ratios and the formulae to know how they are calculated. To help you learn better and for the easy revisions later, you are provided here with the formulae for the ratios that we have discussed in this series. Let's move on and look into Ratio Analysis – Ratios Formulae.

Liquidity Ratios

Also known as Solvency Ratios, and as the name indicates, it focuses on a company's current assets and liabilities to assess if it can pay the short-term debts. The three common liquidity ratios used are current ratio, quick ratio, and burn rate. Among the three, current ratio comes in handy to analyze the liquidity and solvency of the start-ups.



S. No.	RATIOS	FORMULAS
1	Current Ratio	Current Assets/Current Liabilities
2	Quick Ratio	Liquid Assets/Current Liabilities
3	Absolute Liquid Ratio	Absolute Liquid Assets/Current Liabilities

Profitability Ratios

These ratios analyze another key aspect of a company and that is how it uses its assets and how effectively it generates the profit from the assets and equities. This also then gives the analyst information on the effectiveness of the use of the company's operations.

S.No.	RATIOS	FORMULAS
1	Gross Profit Ratio	Gross Profit/Net Sales X 100
2	Operating Cost Ratio	Operating Cost/Net Sales X 100
3	Operating Profit ratio	Operating Profit/Net Sales X 100
4	Net Profit Ratio	Operating Profit/Net Sales X 100
5	Return on Investment Ratio	Net Profit After Interest And Taxes/ Shareholders Funds or Investments X 100
6	Return on Capital Employed Ratio	Net Profit after Taxes/ Gross Capital Employed X 100
7	Earnings Per Share Ratio	Net Profit After Tax & Preference Dividend /No of Equity Shares
8	Dividend Pay Out Ratio	Dividend Per Equity Share/Earning Per Equity Share X 100
9	Earning Per Equity Share	Net Profit after Tax & Preference Dividend / No. of Equity Share
10	Dividend Yield Ratio	Dividend Per Share/ Market Value Per Share X 100
11	Price Earnings Ratio	Market Price Per Share Equity Share/ Earning Per Share X

		100
12	Net Profit to Net Worth Ratio	Net Profit after Taxes / Shareholders Net Worth X 100

Working Capital Ratios

Like the Liquidity ratios, it also analyses if the company can pay off the current debts or liabilities using the current assets. This ratio is crucial for the creditors to establish the liquidity of a company, and how quickly a company converts its assets to bring in cash for resolving the debts.

S. No.	RATIOS	FORMULAS
1	Inventory Ratio	Net Sales / Inventory
2	Debtors Turnover Ratio	Total Sales / Account Receivables
3	Debt Collection Ratio	Receivables x Months or days in a year / Net Credit Sales for the year
4	Creditors Turnover Ratio	Net Credit Purchases / Average Accounts Payable
5	Average Payment Period	Average Trade Creditors / Net Credit Purchases X 100
6	Working Capital Turnover Ratio	Net Sales / Working Capital
7	Fixed Assets Turnover Ratio	Cost of goods Sold / Total Fixed Assets
8	Capital Turnover Ratio	Cost of Sales / Capital Employed

Capital Structure Ratios

Each firm or company has capital or funds to finance its operations. These ratios, i.e., the Capital Structure Ratios, analyze how structurally a firm uses the capital or funds.

S. No.	RATIOS	FORMULAS
1	Debt Equity Ratio	Total Long Term Debts / Shareholders Fund
2	Proprietary Ratio	Shareholders Fund/ Total Assets
3	Capital Gearing ratio	Equity Share Capital / Fixed Interest Bearing Funds
4	Debt Service Ratio	Net profit Before Interest & Taxes / Fixed Interest Charges

Overall Profitability Ratio

True to its name, these ratios measure how profitable a particular firm or company is, or how it can turn its assets and capital into profits for future use.

S. No.	RATIOS	FORMULAS
1	Overall Profit Ability Ratio	Net Profit / Total Assets



Cash Flow Statement

A cash flow statement is a [financial statement](#) that provides aggregate data regarding all cash inflows a company receives from its ongoing operations and external investment sources. It also includes all cash outflows that pay for business activities and investments during a given period.

A company's financial statements offer investors and analysts a portrait of all the transactions that go through the business, where every transaction contributes to its success. The cash flow statement is believed to be the most intuitive of all the financial statements because it follows the cash made by the business in three main ways—through operations, investment, and financing. The sum of these three segments is called net cash flow.

These three different sections of the cash flow statement can help investors determine the value of a company's stock or [the company as a whole](#).

Investors and analysts should use good judgment when evaluating changes to working capital, as some companies may try to boost up their cash flow before reporting periods.

How Cash Flow Statements Work

Every company that sells and offers its stock to the public must file financial reports and statements with the Securities and Exchange Commission (SEC). The three main financial statements are the balance sheet and income statement. The cash flow statement is an important document that helps open a window interested parties insight into all the transactions that go through a company.

There are two different branches of accounting—accrual and cash. Most public companies use [accrual accounting](#), which means the [income statement](#) is not the same as the company's cash position. The cash flow statement, though, is focused on cash accounting.

Profitable companies can fail to adequately manage cash flow, which is why the cash flow statement is a critical tool for companies, analysts, and investors. The cash flow statement is broken down into three different business activities: operations, investing, and financing.



Let's consider a company that sells a product and extends credit for the sale to its customer. Even though it recognizes that sale as revenue, the company may not receive cash until a later date. The company earns a profit on the income statement and pays income taxes on it, but the business may bring in more or less cash than the sales or income figures.

Understanding Cash Flow

Cash Flows from Operations

This is the first section of the cash flow statement and includes transactions from all operational business activities. The cash flows from operations section begins with net income, then reconciles all noncash items to cash items involving operational activities. So, in other words, it is the company's net income, but in a cash version.

This section reports cash flows and outflows that stem directly from a company's main business activities. These activities may include buying and selling inventory and supplies, along with paying its employees their salaries. Any other forms of in and outflows such as investments, debts, and dividends are not included.

Companies are able to generate sufficient positive cash flow for operational growth. If there is not enough generated, they may need to secure financing for external growth in order to expand.

For example, accounts receivable is a noncash account. If accounts receivable go up during a period, it means sales are up, but no cash was received at the time of sale. The cash flow statement deducts receivables from net income because it is not cash. The cash flows from the operations section can also include accounts payable, depreciation, amortization, and numerous prepaid items booked as revenue or expenses, but with no associated cash flow.

Cash Flows from Investing

This is the second section of the cash flow statement, and is the result of investment gains and losses. This section also includes cash spent on property, plant, and equipment. This section is where analysts look to find changes in [capital expenditures](#) (capex).

When capex increases, it generally means there is a reduction in cash flow. But that's not always a bad thing, as it may indicate that a company is making investment into its future operations. Companies with high capex tend to be those that are growing.

While positive cash flows within this section can be considered good, investors would prefer companies that generate cash flow from business operations – not through investing and financing activities. Companies can generate cash flow within this section by selling equipment or property.

Cash Flows from Financing

Cash flows from financing is the last section of the cash flow statement. The section provides an overview of cash used in business financing. It measures cash flow between a company and its owners and its creditors, and its source is normally from debt or equity. These figures are generally reported annually on a company's 10-K report to shareholders .

Analysts use the cash flows from financing section to determine how much money the company has paid out via dividends or share buybacks. It is also useful to help determine how a company raises cash for operational growth.

Cash obtained or paid back from capital fundraising efforts, such as equity or debt, is listed here, as are loans taken out or paid back.

When the cash flow from financing is a positive number, it means there is more money coming into the company than flowing out. When the number is negative, it may mean the company is paying off debt, or is making dividend payments and/or stock buybacks.

Key Takeaways

- A cash flow statement provides data regarding all cash inflows a company receives from its ongoing operations and external investment sources.
- The cash flow statement includes cash made by the business through operations, investment, and financing – the sum of which is called net cash flow.
- The first section of the cash flow statement is cash flow from operations, which includes transactions from all operational business activities.

- Cash flow from investment is the second section of the cash flow statement, and is the result of investment gains and losses.
- Cash flow from financing is the final section, which provides an overview of cash used from debt and equity.

INDIRECT METHOD

FORMAT FOR CASH FLOW STATEMENT

for the year ended

[As per Accounting Standard-3 (Revised)]

Particulars	Rs.
1. Cash Flow from Operating Activities	
Net Profit and Loss A/c or Difference between Closing Balance and Opening Balance of Profit and Loss A/c	
Add : (A) Appropriation of funds.	
Transfer to reserve	
Proposed dividend for current year	
Interim dividend paid during the year	
Provision for tax made during the current year	
Extraordinary item, if any, debited to the Profit and Loss A/c	
Less : Extraordinary item, if any, credited to the Profit and Loss A/c	
Refund of tax credited to Profit and Loss A/c	
Net Profit before Taxation and Extraordinary Items	
(B) Add : Non operating Expenses :	
- Depreciation	
- Preliminary Expenses / Discount on Issue of Shares and Debentures written	
- Goodwill, Patents and Trade Marks Amortized	
- Interest on Borrowings and Debentures	
- Loss on Sale of Fixed Assets	
.... (C) Less : Non Operating Incomes:	
- Interest Income	
- Dividend Income	
- Rental Income	

- Profit on Sale of Fixed Assets	
(D) Operating Profit before Working Capital Changes (A+B-C)	
... (E) Add : Decrease in Current Assets and Increase in Current Liabilities	
<ul style="list-style-type: none"> - Decrease in Stock/ Inventories - Decrease in Debtors/ Bills Receivables - Decrease in Accrued Incomes - Decrease in Prepaid Expenses - Increase in Creditors /Bills Payables - Increase in Outstanding Expenses - Increase in Advance Incomes - Increase in Provision for Doubtful Debts. 	
(F) Less : Increase in Current Assets and Decrease in Current Liabilities	
<ul style="list-style-type: none"> - Decrease in Stock/ Inventories - Decrease in Debtors/ Bills Receivables - Decrease in Accrued Incomes - Decrease in Prepaid Expenses - Increase in Creditors /Bills Payables - Increase in Outstanding Expenses - Increase in Advance Incomes - Increase in Provision for Doubtful Debts. 	
(G) Cash Generated from Operations (D+E-F)	
(H) Less : Income Tax Paid (Net of Tax Refund received)	
(I) Less : Income Tax Paid (Net of Tax Refund received)	
(J) (+/-) Extraordinary Items	
(K) Net Cash from (or used in) Operating Activities	
II. Cash Flow from Investing Activities	
<ul style="list-style-type: none"> - Proceeds from Sale of Fixed Assets - Proceeds from Sale of Investments - Proceeds from Sale of Intangible Assets - Interest and Dividend received (For Non-financial companies only) <ul style="list-style-type: none"> - Rent Income - Purchase of Fixed Assets (…) - Purchase of Investments (…) - Purchase Intangible Assets like Goodwill (…) 	
Net Cash from (or used in) Financing Activities	
III. Cash from Financing Activities	
<ul style="list-style-type: none"> - Proceeds from Issue of Shares and Debentures 	



- Proceeds from Other Long-term Borrowings		
- Final Dividend Paid	(...)	
- Interest and Debentures and Loans Paid	(...)	
- Repayment of Loans	(...)	
- Redemption of Debentures / Preference Shares	(...)	
Net Cash from (or used in) Financing Activities		
IV. Net Increase / Decrease in Cash and Cash Equivalents (I+II+III)		
V. Add : Cash and Cash Equivalents in the beginning of the year		
- Cash in Hand		
- Cash at Bank (Less : Bank Overdraft)	...	
- Short-term Deposits	...	
- Marketable Securities		
VI. Cash and Cash Equivalents in the end of the year		
- Cash in Hand	...	
- Cash at Bank (Less : Bank Overdraft)	...	
- Short-term Deposits	...	
- Marketable Securities		

Note : Amounts in brackets indicate negative amounts, i.e., amounts that are to be deducted