

# FINANCIAL RATIOS ANALYSIS

- is considered as one of the best ways to analyze the fundamental aspects of a business. It helps us in understanding the financial performance of the company derived from its financial statements. This is an important metric to analyze the company's operating profitability, liquidity, leverage, etc. The following financial analysis example provides an outline of the most common financial analysis used by professionals.

## Liquidity Ratios/Solvency Ratios

نسب السيولة/ نسب الملاءة

1. Liquidity ratios refers to the ability of a firm to meet its obligations in short-run, usually, one year.
2. Liquidity ratios are generally based on relationship between current assets and current liabilities.

The important liquidity ratios are :

- (i) Current ratio, نسبة التداول
- (ii) Acid Test Ratio, and نسبة السيولة السريعة
- (iii) Fund Flow Ratio. نسبة التدفق النقدي

(i) Current Ratio :

The Current Ratio measures the extent of the number of current assets to current liabilities. Generally, the ratio of 1 is considered to be ideal for depicting that the company has sufficient current assets in order to repay its current liabilities.

Current Ratio Formula = Current Assets/Current Liabilities

Example : Company has the following information –

Sundry Debtors – \$40,000

Inventories – \$30,000

Prepaid Expenses – \$5000

Sundry Creditors – \$25000

Outstanding salaries – \$10,000

Find out the CR of giving Company.

- we will find out the total of current assets and current liabilities.

Total Current Assets = (Sundry Debtors + Inventories + Prepaid Expenses) =

$(\$40,000 + \$30,000 + \$5000) = \$75,000$

Total Current Liabilities = (Sundry Creditors + Outstanding Salaries) =  $(\$25,000 +$

$\$10,000) = \$35,000.$

CR of Give Company is = Current Assets / Current Liabilities =  $\$75,000 / \$35,000$

= 2.14.

(ii) Acid Test Ratio, نسبة السيولة السريعة

*Quick ratio* (also known as *acid-test ratio*) is a liquidity ratio which measures the dollars of liquid current assets available per dollar of current liabilities. Liquid current assets are current assets which can be quickly converted to cash without any significant decrease in their value. Liquid current assets typically include cash, marketable securities and receivables. Quick ratio is expressed as a number instead of a percentage.

$$\text{Quick Ratio} = \frac{\text{cash} + \text{Marketable Securities} + \text{Receivables}}{\text{Current Liabilities}}$$

Another approach to calculation of quick ratio involves subtracting all illiquid current assets from total current assets and dividing the resulting figure by total current liabilities. Illiquid current assets are current assets which can't be easily converted to cash i.e. prepayments, advances, advance taxes, inventories, etc.

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventories} - \text{Prepayments}}{\text{Current Liabilities}}$$

Quick ratio is an indicator of most readily available current assets to pay off short-term obligations. It is particularly useful in assessing liquidity situation of companies in a crunch situation, i.e. when they find it difficult to sell inventories.

## Example

You are a Financial Analyst tasked to analyze liquidity position of Apple, Inc. (NYSE: AAPL) and Kiwi, Inc. (a fictional futuristic technology company) using quick ratio.

Following is an extract from balance sheet of Apple for the latest period:

	\$ '000,000
Cash and cash equivalents	21,120
Short-term investments	20,481
Receivables	16,849
Inventories	2,349
Deferred income taxes	5,546
Other current assets	23,033
Total current assets	89,378
Total current liabilities	80,610

Following information is available regarding Kiwi for the latest complete financial year:

\$ '000,000

Total current assets	51,787
Deferred income taxes	1,242
Inventories	3,485
Prepaid expenses	1,116
Other current assets	4,148
Total current liabilities	42,191

Kiwi has an inventory turnover ratio higher than the industry average and a splendid growth rate. Apple's inventory turnover and growth are in line with industry average.

Quick ratio of Apple

$$\frac{21,120 + 20,481 + 16,849}{80,610} = 0.73$$

Quick ratio of Kiwi

$$\frac{51,787 - 1,242 - 3,485 - 1,116 - 4,148}{42,191} = 0.99$$

Kiwi has a quick ratio of 0.99 as compared to 0.73 in case of Apple. While Apple's quick ratio is quite safe, Kiwi has better overall liquidity particularly in a crunch situation. Analyzed together with its high growth rate and high inventory turnover ratio, Kiwi's high quick ratio does not indicate inefficiency either.

## Example

The following figures have been taken from the balance sheet of GHI Company.

### Current assets:

Cash and cash equivalents	\$ 76,000
Marketable securities	110,000
Trade and other receivables	230,000
Inventories	167,000
Prepayments	42,000
Total current assets \$	625,000

### Non-current assets:

Long-term investments	\$450,000
Fixed assets	900,000
Total current assets	\$ 1,350,000

TOTAL ASSETS \$ 1,975,000

Current liabilities \$ 350,000

Non-current liabilities 900,000

Stockholders' equity 725,000

TOTAL LIABILITIES & EQUITY \$ 1,975,000

### Computation of quick ratio:

$$\begin{aligned}\text{Quick ratio} &= \text{Quick assets} \div \text{Current liabilities} \\ &= (\$76,000 + \$110,000 + \$230,000) \div \$350,000\end{aligned}$$

$$\text{Quick ratio} = 1.19$$

(iii) Fund cash Flow Ratio. نسبة التدفق النقدي

The operating cash flow ratio is a measure of how well current liabilities are covered by the cash flows generated from a company's operations. The ratio can help gauge a company's [liquidity](#) in the short term.

The formula for calculating the operating cash flow ratio is as follows:

$$\text{Cash flow operating ratio} = \frac{\text{cash flow from operation}}{\text{current liabilities}}$$

Operating Cash Flow = Operating Income + Depreciation – Taxes + Change in Working Capital

Change in Working Capital = Assets (increase) / decrease + Liabilities increase / (decrease)

Example : fallow the information to brother co.

Current assets	2011	2010	Current liabilities	2011	2010
Cash and cash equivalents	1,193	1,364	Trade payables	102,253	91,926
Receivables	130,938	106,991	Non-trade payables	35,750	17,245
Inventory	58,634	37,205	Borrowing	1,250	13,750
total	190,765	145,560	Total	139,523	122,921

income statement	
Revenue	566,408
Cost of sales	(473,905)
Gross profit	92,503
Depreciation	(1,516)
Amortization	(975)
Distribution costs	(6,409)
Administration expenses	(37,729)
Operating profit	45,874
Tax paid	(4,800)

Required :  
From the information above, calculate the operating cash flow produced in 2011 and calculate the operating cash flow ratio if you know the Current Liabilities= 272.91

# TEN EASY STEPS TO CALCULATING OPERATING CASH FLOW

1. Calculate the after-tax operating profit.
2. Add back depreciation and amortisation.

## **Changes in current assets:**

3. Calculate the increase or decrease in receivables.
  4. Deduct the increase in receivables, or add any decrease.
  5. Calculate the increase or decrease in inventory.
  6. Deduct the increase, or add any decrease.
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## **Changes in current liabilities:**

7. Calculate the increase or decrease in trade payables (liabilities).
  8. ADD the increase in payables, or deduct any decrease.
  9. Calculate the increase or decrease in nontrade payables.
  10. ADD the increase, or deduct any decrease.
- ❖ Notice that for changes in liabilities, this adjustment is the opposite way round, compared with the adjustment for changes in assets.

## ANSWERS

Operating profit:	45,874
Less tax paid:	(4,800)
=Equals after tax	41,074
Add back depreciation	1,516
Add back amortization	975
Subtotal	43,565

	Last year's asset / (liability)	Less	Last year's asset / (liability)	
<b>Assests (increase) / decrease:</b>				
<b>Receivables</b>	106,991		130,938	(23,947)
<b>Inventory</b>	37,205		58,634	(21,429)
<b>Liabilities increase / (decrease):</b>				
<b>Trade payables</b>	(91,926)		(102,523)	10,597
<b>Non-trade payables</b>	(17,245)		(35,750)	18,505

Subtotal from above	43,565
Less (increase in receivables)	(23,947)
Less (increase in inventory)	(21,429)
Add increase in trade payables	10,597
Add increase in non-trade payables	18,505
Net operating cash inflow	27,291
	cash flow from operation

$$\begin{aligned}
 \text{Cash flow operating ratio} &= \frac{\text{cash flow from operation}}{\text{Current Liabilities}} \\
 &= \frac{27,291}{139,523} \\
 &= 0.195
 \end{aligned}$$