

# CARE Ratings' criteria on Financial Ratios - Non-Financial Sector



[Issued in March 2023]

## Background

Financial ratios are used by CARE Ratings Limited (CARE Ratings) to make a holistic assessment of financial performance of the entity, and also help in evaluating the entity's performance vis-à-vis its peers within the industry. Financial ratios are not an 'end' by themselves but a 'means' to understanding the fundamentals of an entity. This document gives a general list of the ratios used by CARE Ratings in its credit risk assessment for manufacturing, trading and services sector entities. These ratios are applied on the past financial statements of an entity as well as for the future projections. In addition to the ratios mentioned in this document, various other sector-specific ratios are used, or certain adjustments are made to financial ratios of entities belonging to certain sectors like real estate, construction, infrastructure companies, etc., for evaluating entities in that sector. Sector-specific rating methodologies are available on CARE Ratings website ([www.careratings.com](http://www.careratings.com)).

The common ratios used by CARE Ratings can be categorised into the following five types:

- Growth ratios
- Profitability ratios
- Leverage and coverage ratios
- Turnover and liquidity ratios

These are given in detail below:

### A. Growth ratios

Trends in the growth rates in income and profitability of an entity vis-à-vis the industry reflect the entity's ability to sustain its market share, profitability and operating efficiency. In this regard, focus is drawn to growth in income, profit before interest, lease rentals, depreciation and taxation (PBILDT) and profit after taxation (PAT). The growth ratios considered by CARE Ratings include the following ('t' refers to the current period while 't-1' refers to the immediately preceding period):

Ratio	Formula
Growth in Net Sales	$\frac{[(\text{Net Sales}_t \times 12 / \text{No. of Months}) - (\text{Net Sales}_{t-1} \times 12 / \text{No. of Months})] \times 100}{[\text{Net Sales}_{t-1} \times 12 / \text{No. of Months}]}$
Growth in Total Operating Income	$\frac{[(\text{TOI}_t \times 12 / \text{No. of Months}) - (\text{TOI}_{t-1} \times 12 / \text{No. of Months})] \times 100}{[\text{TOI}_{t-1} \times 12 / \text{No. of Months}]}$ TOI = Total Operating Income
Growth in PBILDT	$\frac{[(\text{PBILDT}_t \times 12 / \text{No. of Months}) - (\text{PBILDT}_{t-1} \times 12 / \text{No. of Months})] \times 100}{[\text{PBILDT}_{t-1} \times 12 / \text{No. of Months}]}$
Growth in PAT	$\frac{[(\text{PAT}_t \times 12 / \text{No. of Months}) - (\text{PAT}_{t-1} \times 12 / \text{No. of Months})] \times 100}{[\text{PAT}_{t-1} \times 12 / \text{No. of Months}]}$

- **Total operating income-** In computing the total operating income (TOI), CARE Ratings considers **all operating income** of the entity. For arriving at the core sales figure, the indirect taxes incurred by the entity (like Goods & Services Tax [GST], excise duty, sales tax, service tax, etc.) are netted off against the

gross sales. CARE Ratings also includes some **other income related to the core operations** like income derived from job work done by the entity, any royalty/ technical knowhow/ commission received in relation to the core operations, refund of indirect taxes, sale of scrap, cash discounts received, duty drawback and other export incentives received by the entity and exchange rate gains (not related to debt). Non-core income items do not form part of TOI.

CARE Ratings considers interest income, dividend income, rental income, etc, under non-operating income as these are non-core income items even though these items may be **recurring in nature**.

- **PBILDT-** To arrive at the PBILDT, all operating expenses are deducted from the TOI. The operating expenses include raw material cost, stores and spares, power and fuel, employee costs, selling and distribution expenses and administrative and general expenses, and include royalty/ technical knowhow/ commission incurred, insurance cost, directors' fees, exchange rate loss (not related to debt), bad debts, etc.
- **PAT-** PAT is arrived at by deducting (-) /adding (+) the following from PBILDT:
  - (-) interest and finance charges net of interest cost which has been capitalised- This includes all finance charges incurred by the entity, including interest on term loans, interest on working capital borrowings, interest on unsecured loans from the promoters, interest on lease liability, premium on redemption of bonds and preference shares, gains/losses arising out of exchange rate fluctuation on debt, etc.
  - (-) depreciation/amortisation on assets including depreciation on right-to-use asset
  - (+/-) non-operating income/expense (including non-core income/expenses and profit/loss on sale of assets and investments)
  - (+/-) prior period items (including income tax)
  - (-) tax expense (both current and deferred taxes)
- **Gross cash accruals** – Gross cash accruals (GCA) is computed by adding all inherently non-cash expenditure (like depreciation excluding depreciation on the right-to-use asset created pursuant to adoption of Ind AS116, provision for deferred tax, write-offs, etc.) to PAT. However, provision for bad debts, doubtful debts or warranties are usually not added back as these expenditures are not inherently non-cash from accrual accounting perspective.

## B. Profitability and return ratios

Capability of an entity to earn profits determines its positioning in the value chain. Profitability reflects the final result of business operations. Important measures of profitability are PBILDT margin, PAT margin, return on capital employed (ROCE) and return on net worth (RONW). Profitability ratios are not regarded in isolation but are seen in conjunction with the peers and the industry segments in which the entity operates. The profitability ratios considered by CARE Ratings include:

Ratio	Formula	Significance in analysis
PBILDT Margin	$\frac{\text{PBILDT}}{\text{TOI}} \times 100$	A key indicator of operating efficiency in any manufacturing/trading/service activity without considering the financing mix and the tax expenditure of the entity.
PAT Margin	$\frac{\text{PAT}}{\text{TOI}} \times 100$	Considers both business risk and the financial risk. This is the margin available for the equity shareholders.

Ratio	Formula	Significance in analysis
ROCE	$\frac{[\text{PBIT} + \text{Non-Operating Income} +/- \text{Extraordinary Income/Expenses}] +/- \text{Other Comprehensive Income} \times [12 / \text{No. of Months}]}{\text{Avg. (TCE}_t, \text{TCE}_{t-1})}$	$\times 100$ ROCE reflects the earnings capacity of the assets deployed, ignoring taxation and financing mix. It is a powerful tool for comparison of performance of companies within an industry.
	TCE = Total Capital Employed = Networth + Total debt + Net Deferred Tax Liabilities/(Assets) (OR) Net fixed assets + Net Working Capital	
RONW	$\frac{\text{PAT} +/- \text{Other Comprehensive Income} \times [12 / \text{No. of Months}]}{\text{Avg. (Tangible Networth}_t, \text{Tangible Networth}_{t-1})}$	$\times 100$ RONW reflects the return to equity shareholders.

- **Tangible net worth** of the entity includes the equity share capital, all reserves and surplus (excluding revaluation reserve), unsecured loans from the promoters which are subordinated to the outside loans, equity share warrants, share application money, ESOPs outstanding, minority interest (in case of consolidated financials). Other considerations while calculating net worth are highlighted below:
  - Miscellaneous expenditure not written-off and accumulated losses- Both miscellaneous expenditure not written-off and accumulated losses are deducted from the above to arrive at the tangible net worth.
  - Revaluation reserves- Revaluation reserves arising out of revaluation of fixed assets are not treated as a part of the tangible net worth of the entity.
  - Treatment of intangible assets- An intangible asset is an asset which is not physical in nature. Examples of intangible assets include computer software, patents, copyrights, licenses, intellectual property, trademark (including brands and publishing titles), customer lists, mortgage servicing rights, import quotas, franchises, customer or supplier relationships, customer loyalty, market share, marketing rights, goodwill, etc.

Generally, intangible assets are excluded from the tangible net worth of the entity (e.g., software, internally generated goodwill, goodwill on consolidation). However, in case the intangible asset is critical to the core operations of the entity, in which case CARE Ratings considers the same as a part of the tangible net worth of the entity. Examples include:

- Telecom license fees paid by the telecom operators to the Government of India
- Surface rights paid by the miners to undertake mining activity in India
- Media rights like movie rights, audio rights, video rights, broadcasting rights, television rights, theatrical rights, satellite rights, music rights, digital rights, overseas rights, copyrights, etc.
- Intellectual Property Rights (IPRs) - Intellectual Property is a non-physical property created by the intellect of the human mind. Examples of Intellectual Property include patents, copyrights, trademarks, designs, etc. IPRs are generally seen in the IT and pharmaceutical sectors.

### C. Leverage and coverage ratios

Financial leverage refers to the use of debt finance. While leverage ratios help in assessing the risk arising from the use of debt capital, coverage ratios show the relationship between debt servicing commitments and the cash flow sources available for meeting these obligations. CARE Ratings uses ratios like long-term debt-equity ratio, overall gearing ratio, total outside liabilities to net worth, interest coverage, total debt as a proportion of cash accruals, PBILDT and cash flow from operations; and debt-service coverage ratio to measure the degree of leverage used and level of coverage available with the entity for debt servicing. Ratios considered by CARE Ratings include:

Ratio	Formula	Significance in analysis
Long-term Debt Equity Ratio	Total long-term debt (including current portion of debt)/ Tangible net worth	<ul style="list-style-type: none"> <li>Debt equity, overall gearing and total outside liabilities to net worth ratios indicate the extent of financial leverage in an entity and are a measure of financial risk. Though higher leverage would indicate higher returns to equity shareholders, the degree of risk increases for debt holders in case of uncertainty or volatility of earnings.</li> <li>While calculating the debt equity ratio, only the long-term debt (including the current portion of the long-term debt) is considered.</li> <li>Both debt equity and overall gearing ratios are adjusted for the exposure to the group companies and analysis is done in conjunction with the performance of the respective group companies.</li> <li>CARE Ratings also considers the impact of the non-fund-based limits (availed by the entity) on the leverage levels of the entity.</li> <li>Total outside liabilities include total debt, other long-term liabilities and provisions, net of deferred tax liability.</li> </ul>
Overall Gearing (Including Acceptances / Creditors on LC)	Total debt (including Acceptances/Creditors on LC)/Tangible net worth	
Total Outside Liabilities to Networth	Total outside liabilities/ Net worth	
Interest Coverage	PBILDT/Total interest & Finance Charges – Amortisation of premium on debentures (if any) – Interest Capitalised	It indicates extent of cover available to meet interest payments. It is a simple indicator of profitability and cushion available to secured creditors.
Term Debt / GCA	Total long-term debt (including current portion of debt) GCA	<ul style="list-style-type: none"> <li>Term debt/ GCA and total debt/ GCA indicate the number of years that would be required for repayment of the long-term debt and the entire debt, respectively, considering current levels of GCA.</li> <li>Term debt/PBILDT and total debt/PBILDT indicate the number of years that would be required to repay long-term and total debt considering current levels of operating profit.</li> <li>Total debt/CFO indicates the number of years that would be required to repay total debt considering current levels of CFO.</li> </ul>
Total Debt / GCA	Total debt (including Acceptances/Creditors on LC) GCA	
Term Debt/PBILDT	Total long-term Debt (including current portion of long-term debt)/PBILDT	

Ratio	Formula	Significance in analysis
Total Debt/PBILDT	Total Debt (including Acceptances/Creditors on LC)/PBILDT	CFO is cash generated from operations after adjusting for working capital changes.
Total Debt /CFO	Total Debt (including Acceptances/Creditors on LC)/ Cash flow from operations (CFO)	
Debt Service Coverage ratio (DSCR)	GCA+ Interest and finance charges- Internal accruals committed for capex or investment/ Gross Long-term loan repayable in the year+ Standalone CP + Short-term debt repayments + Interest and finance charges	DSCR indicates adequacy of cash accruals to meet debt obligations. This ratio is seen in conjunction with the cumulative DSCR (given below) which incorporates prior period cash accruals. Though DSCR is an important indicator of an entity's repayment capacity, CARE Ratings also considers available liquidity, financial flexibility, or refinancing ability of an entity (including due to group strength).
Cash DSCR	(GCA+ Interest and finance charges- Internal accruals committed for capex or investment)- 25% increase in the working capital/ Gross Long-term loan repayable in the year + Standalone CP + Short-term debt repayments + Interest and finance charges	Cash DSCR is computed by deducting the margin money for the working capital (25% of incremental working capital) from the funds available for debt servicing on the assumption that it will be met out of the GCA and hence will not be available for debt servicing. The balance 75% of the incremental working capital is assumed to be met through working capital borrowings.
Cumulative/ Average DSCR		It indicates running position of average DSCR every year. Cumulative DSCR for the last year of projections would be equivalent to the average DSCR for the tenure of the instrument.

- Total debt-** In total debt, CARE Ratings considers all forms of short-term and long-term debts, including redeemable preference share capital, optionally convertible debentures, interest free loans, foreign currency loans, vehicle loans, fixed deposits, unsecured loans, commercial paper, inter-corporate borrowings, borrowings from the promoters, associates, other group companies and bills discounted. Apart from these, CARE Ratings also considers acceptances/ creditors on LC (including capex LCs), lease liability and mobilisation advances backed by financial bank guarantees (generally in case of Construction entities) as a part of the total debt of the entity. Any corporate guarantee given to lenders of subsidiaries or other group companies is added to the debt to calculate adjusted leverage ratios.

However, if any part of the borrowings from the promoters/related parties are subordinated to the loans from outsiders that are being rated, the same is treated as a part of net worth. Nevertheless, the interest expense on the subordinated debt is treated as a normal interest expenditure of the entity.

If the debt is fully backed by a dedicated/ lien-marked Fixed Deposits/cash margin, CARE Ratings excludes the same from the total debt.

- Treatment of Hybrid instruments-** Hybrid instruments are instruments which have the characteristics of both debt and equity. Examples include Redeemable Preference Shares, Compulsorily Convertible

instruments, Optionally Convertible instruments, including Foreign Currency Convertible Bonds (FCCBs), Perpetual Debt, etc. These instruments normally carry a fixed rate of coupon/ dividend. At times, the coupon/ dividend may be deferrable, thus giving the issuer the flexibility to conserve cash in times of stress.

- **Redeemable Preference Shares-** Preference shares have a fixed tenure at the end of which they have to be redeemed by the issuer. Furthermore, they also carry a fixed rate of dividend. Hence, preference share capital typically has the characteristics of debt and is treated as such by CARE Ratings in its analysis. However, if preference shares are issued to the promoters of the company and are redeemable after repayment of the outstanding term debt of the company, they assume the nature of long-term funding from the promoters and hence CARE Ratings treats them as quasi equity.
- **Compulsorily Convertible Instruments-** Sometimes the instrument could be compulsorily convertible into equity at the end of a long time frame, e.g., 5-7 years. Hence, the company does not have to redeem the instrument at the end of the tenure and as such there is no credit risk. In all such cases where the terms of the preference shares/ debentures give it equity like characteristics, CARE Ratings treats the Compulsorily Convertible instruments (including Compulsorily Convertible Preference Share Capital (CCPS)/ Compulsorily Convertible Debentures (CCDs)) as quasi equity and considers it as a part of the net worth of the company. However, if the terms of the compulsorily convertible instruments are such that the investors have an exit option on the company or the conversion to equity shares is conditional, CARE Ratings treats these instruments as debt.
- **Optionally Convertible Instruments-** At times, companies also issue optionally convertible instruments (typically Optionally Convertible Preference Shares (OCPS)/ Optionally Convertible Debentures (OCDs)). Here, the investor has the option to convert the instrument into equity shares at the end of a certain time frame at a pre-determined price. In this case, the alternative of redemption of the instrument cannot be ruled out till it is actually converted into equity. The instrument thus has debt like characteristics till the time it is actually converted into equity. Thus, CARE Ratings generally treats the optionally convertible instruments as debt in its analysis.

#### D. Turnover and liquidity ratios

Turnover ratios, also referred to as activity ratios or asset turnover ratios, measure how efficiently the assets are deployed and utilised by the entity. These ratios are based on the relationship between the level of activity, represented by sales or cost of goods sold, and level of various assets, including inventories and fixed assets. The liquidity ratios such as current ratio and quick ratio are broad indicators of liquidity level and are important ratios for rating short-term instruments. The analysis of cash flow statements is also important for liquidity assessment. Turnover and liquidity ratios considered by CARE Ratings include:

Ratio	Formula	Significance in analysis
Avg. Inventory Period	$\frac{\text{Avg. (INV}_t, \text{INV}_{t-1}) \times 30 \times \text{No. of Months}}{\text{Costs of Sales} - \text{Selling Expenses}}$ INV = Total Inventory	This indicates the turnaround time of inventory. High average inventory period may indicate high levels of obsolescence of inventory, while low levels of inventory may be inadequate to meet emergencies. The ratio is compared with normal inventory holding policy of the company and the industry practice. CARE Ratings also looks at the average raw material inventory period, Average WIP inventory period and the average finished goods inventory period.

Ratio	Formula	Significance in analysis
Avg. Collection Period	$\frac{\text{Avg. (REC}_t, \text{REC}_{t-1}) \times 30 \times \text{No. of Months}}{\text{Gross Sales} + \text{Traded Goods Sales} + \text{Job Work Income} + \text{Scrap Sales}}$ <p>REC = Total Receivables</p>	This indicates quality of debtors. Very low figure can indicate strict trade terms resulting in possible loss in sales. Very high average collection period may indicate slow realisation of debtors and in turn may be an indicator of stressed liquidity position. It is compared with the normal ('stated') credit period extended to customers and the industry norms.
Avg. Creditors Period	$\frac{\text{Avg. (CRED}_t, \text{CRED}_{t-1}) \times 30 \times \text{No. of Months}}{\text{Cost of Sales} - \text{Misc. Expenses Written Off}}$ <p>CRED = Total Creditors</p>	It is compared with normal credit period enjoyed by the entity and the industry norms. Very high figure will indicate possible delays in payments to the creditors, which would ultimately reflect in high cost of raw material, as the 'interest' on the 'delayed' payments normally gets loaded to the raw material cost.
Working Capital Cycle	Avg. Inventory Period + Avg. Collection Period – Avg. Creditors Period	The effect of all the above-mentioned ratios is reflected in the working capital cycle.
Fixed assets turnover ratio	$\frac{[\text{TOI} - \text{Other Income Not Related to Core Business}] \times [12 / \text{No. of Months}]}{\text{Avg. (Gross Block}_t, \text{Gross Block}_{t-1})}$ <p>Gross Block: Net of Intangible Assets such as Goodwill etc.</p>	In general, higher the ratio, higher the efficiency of asset/capital utilisation. However, very high figure can indicate old assets requiring large outlay on modernisation going forward. Hence, the ratio has to be looked at in conjunction with the industry average.
Working Capital Turnover Ratio	$\frac{[\text{TOI} - \text{Other Income Not Related to Core Business}] \times [12 / \text{No. of Months}]}{\text{Avg. (NWC}_t, \text{NWC}_{t-1})}$ <p>NWC = Net Working Capital = Total Current Assets – [Total Current Liabilities related to Operations – Creditors for Capital Goods]</p>	In general, higher the ratio, higher is the efficiency. Too high a figure can, however, indicate low levels of inventory, which may be inadequate to meet emergencies.
Current Ratio	$\frac{\text{Total Current Assets}}{\text{Total Short-term Debt (includes Current Portion of Long-term Debt/Fixed Deposits and bills discounted)} + \text{Total Current Liabilities and Provisions}}$	This indicates short-term liquidity position. CARE Ratings compares the same with the industry trends and banking norms.
Quick Ratio	$\frac{\text{Total Current Assets} - \text{Total Inventories}}{\text{Total Short-term Debt (includes Current Portion of Long-term Debt/Fixed Deposits)} + \text{Total Current Liabilities and Provisions}}$	This indicates capacity to meet short-term obligations using near-liquid assets. CARE Ratings compares the same with the industry trends and banking norms.

[For previous version please refer 'Financial ratios - Non-Financial Sector' issued in [May 2022](#)]

## CARE Ratings Limited

Corporate Office: 4th Floor, Godrej Coliseum, Somaiya Hospital Road, Off Eastern Express Highway, Sion (East), Mumbai - 400 022  
Phone : +91 - 22 - 6754 3456 | CIN: L67190MH1993PLC071691

Connect :



Locations: Ahmedabad | Andheri-Mumbai | Bengaluru | Chennai | Coimbatore | Hyderabad | Kolkata | New Delhi | Pune

### About:

CareEdge is a knowledge-based analytical group that aims to provide superior insights based on technology, data analytics and detailed research. CARE Ratings Ltd, the parent company in the group, is one of the leading credit rating agencies in India. Established in 1993, it has a credible track record of rating companies across multiple sectors and has played a pivotal role in developing the corporate debt market in India. The wholly-owned subsidiaries of CARE Ratings are (I) CARE Advisory, Research & Training Ltd, which offers customised advisory services, credible business research and analytical services (II) CARE Risk Solutions Private Ltd, which provides risk management solutions.

### Disclaimer:

The ratings issued by CARE Ratings Limited are opinions on the likelihood of timely payment of the obligations under the rated instrument and are not recommendations to sanction, renew, disburse or recall the concerned bank facilities or to buy, sell or hold any security. These ratings do not convey suitability or price for the investor. The agency does not constitute an audit on the rated entity. CARE Ratings Limited has based its ratings/outlooks based on information obtained from reliable and credible sources. CARE Ratings does not, however, guarantee the accuracy, adequacy or completeness of any information and is not responsible for any errors or omissions and the results obtained from the use of such information. Most entities whose bank facilities/instruments are rated by CARE Ratings Limited have paid a credit rating fee, based on the amount and type of bank facilities/instruments. CARE Ratings Ltd. or its subsidiaries/associates may also be involved with other commercial transactions with the entity. In case of partnership/proprietary concerns, the rating /outlook assigned by CARE Ratings Limited is, inter-alia, based on the capital deployed by the partners/proprietor and the current financial strength of the firm. The rating/outlook may undergo a change in case of withdrawal of capital or the unsecured loans brought in by the partners/proprietor in addition to the financial performance and other relevant factors. CARE Ratings Limited is not responsible for any errors and states that it has no financial liability whatsoever to the users of CARE Ratings.

Our ratings do not factor in any rating related trigger clauses as per the terms of the facility/instrument, which may involve acceleration of payments in case of rating downgrades. However, if any such clauses are introduced and if triggered, the ratings may see volatility and sharp downgrades