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#### Analysis of cash flow ratios: A study on CMC

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C H R O N I C L E	A B S T R A C T
Article history: Received January 9, 2017 Received in revised format January 11 2017 Accepted March 7 2017 Available online March 7 2017 Keywords: Liquidity Solvency Profitability Efficiency	Cash flow ratios help financial users get relevant information about financial resources for a given time. Cash flow ratios are now used more than the traditional ones because it is more effective and justified. Cash flow based ratios are especially surprising because they do not only play a significant role in the credit rating of evaluation, but also forecast the failure of a corporation. In this study, we perform an empirical investigation on a company named CMC. From the study, it is clear that the liquidity and solvency positions of the company were moderate whereas the company maintained low profitability. On the other hand, the efficiency and sufficiency ratios of the study give us a new look on financial judgement.
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#### 1. Introduction

Information related to cash flow helps financial statement users receive the relevant information concerning the use and source of financial resources over a given time period (Rose et al., 2007). Cash flow statement contains information associated with operating, investing purposes of financial analysis, because the effect of the traditional ratio analysis techniques has been well established in literature, and financial activities (Macve, 1997). Financial investment ratios are vital and many financial analysis depends on accounting performance through profitability measures such as return on assets and net sales to income. These forms of ratios, however, are affected by the fundamental drawbacks that are characteristics of 'accrual based accounting' (Albrecht, 2003). Cash flow analysis is thought to be more effective in determining enterprise effectiveness and competitiveness in the market because it is a more dynamic examination of actual return on assets and equity. Additionally, such unique use of cash flow analysis is applied to the concept of competitive environment and it is a better measure of performance and competitiveness for firms that are competing in competitive environment. From the point of view of investments, competitive environment occupies an intermediate position between, on one hand, the developed economies and on the other hand, those that are less active (Pereiro, 2002).

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© 2018 Growing Science Ltd. All rights reserved. doi: 10.5267/j.ac.2017.3.001 Different categories of professionals have time and again utilized financial ratios as a planning and analysis tool. The key amongst these groups includes auditors and accountants. For example, accounting departments in various institutions of higher learning have introduced fraud examination courses following the results of such corporate scandals such as the one, which afflicted Enron. Such a course is designed to help students learn and appreciate the importance of financial ratios. Wells (2005) recognized the importance of ratio analysis as a vital tool for the detection of red flags within a business entity.

With regard to liquidity analysis, information on cash flow tends to be more reliable in comparison to information from either an income statement, or a balance sheet. Data from a balance sheet tends to be static in nature, meaning that they measure only one point at a given time period (Albrecht et al., 2003). On the other hand, income statement is characterized by random non-cash allowances, for instance, contributions to pension, amortization and depreciation.

Conversely, a statement of cash flow records the observable changes from financial statements. At the same time, it also nets out the deception of bookkeeping, hence, it lays more emphasis on what is of more concern to the shareholders, which is the amount of available cash for both investments and operations. For many years, both Wall Street and Credit analyst experts have been utilizing ratios for the purposes of examining statements of cash flow for convenient disclosures. Principal agencies for credit rating also prominently use the ratios of cash flow in arriving their rating decisions. Bondholders, especially, those investing in 'junk bonds', along with specialists in leveraged buyout, make use of free cash flow ratios to ascertain the risks that could be connected to their investments (Paterson & Drake, 1999). The reason for such a practice is because free cash flow ratios over time, help individuals assess the ability of a company to overcome price wars or cyclical downturns.

Cash flow-based ratios are especially surprising. This is because they not only play a significant role in the credit rating of evaluation, but also forecast the failure of a corporation. However, this does not indicate that traditional ratios are no longer relevant. Traditional ratios, if anything, help to reveal significant associations and trends that may not be obvious on an assessment of individual figures that appear in the books of account (Macve, 1997). Nevertheless, because cash flow ratios are endowed with at least a single factual element (the denominator, numerator, or even both), their lack in importance, from accounting literature, may be regarded as quite puzzling.

A majority of auditors, as well as a number of corporate financial managers, have not been quick to embrace the use of cash flow ratios. Traditionally, auditors have tended to rely more on transaction cycle or a balance sheet approach (Epstein et al., 2007). Sadly, none of these two approaches place emphasis on either cash flow statements, or even cash itself. Auditors do not only fail to utilize statements of cash flow in conjunction with income statement and balance sheet as a way of tracing top cash flow statement common items, they also use extensively the analysis of current ratio and the quick ratio (McClure, 2008). As such, it is important to accord cash flow statement the importance that it deserves. A good example is the filing for bankruptcy by Grant. In this case, analysis of the firm, based on the use of traditional ratios, failed to identify severe liquidity problems that eventually led to a collapse of the firm. The firm reflected positive cash ratios, in addition to exhibiting positive earnings. However, in the actual sense the company was riddled with profound negative cash flows. As a result, the firm was not in a position to meet its current debts along with its numerous commitments to creditors. Integration of cash flow data with traditional ratios would provide a superior measure of performance over accrual accounting data alone (Carslaw et al., 1991:63). Sadly, it is not just the professionals who fail to place an emphasis on the use of cash flows in organizations. Educators also, have been noted for their laxity towards the use of cash flow ratios, preferring instead of relying on other forms of financial analysis, possibly, the traditional current ratios (Bodie et al., 2004). Thus, there is a need for the upcoming generation of auditors to learn and appreciate the need of using cash flow

ratios while carrying out the financial audit of firms. This is because these kinds of measures are proving to be quite significant as the years go by and, in addition, it is becoming more relevant to the marketplace. Consequently, an increasing number of investors, creditors and other stakeholders to various business entities have come to appreciate cash flows and as a result, rely more on them instead of the traditional ratios. Therefore, it plays an important role among capital market, share market, investment performance, which ultimately strengthen the role of finance and economics.

# 2. Literature Review

According to a research study that was undertaken by Narktabtee (2000) in Thailand concerning cash flow information, the researcher indicated that the information contained in a cash flow was to a great extent quite relevant to the prices of the stocks of the firms listed on the Thai stock market. Consequently, a projection of the cash flows of a company in the future enabled potential investors, as well as the existing ones, to forecast with certainty the prices of stocks. With regard to the assessment of investment decision, a survey of investors revealed that their appreciation for the value of the cash flow information increased significantly (Epstein & Pava, 2008).

Barth et al.(2001) and Stammerjohan and Nassiripour (2000, 2001) utilized a modest model of time series in a bid to put to test the connection between future cash flows and the accrual elements of earnings of a firm. The conclusion that was reached by these authors was that each of the individual aspects of accrual accounting of the earnings yielded divergent information as regards the future projections of the cash flows of a firm.

In contrast, Stammerjohan and Nassiripour (2000, 2001), endeavored to reproduce the research study that had been undertaken by Barth et al. (2001). They concluded that the two studies yielded evidence to the fact that models that bore a correlation with both total accruals and cash flows were more likely to forecast future cash flows of a firm with an enhanced level of assurance, when compared with those models whose basis was just the earnings of a company. However, the study that Stammerjohan and Nassiripour (2000, 2001) undertook was seen to yield weak evidence when it was related to the issue of predictive models that utilize both cash flows and accrual earnings.

According to the findings of research studies that have been carried out lately, the significance of operating cash flows has been demonstrated, in as far as the evaluation of a credit risk is concerned (Ahmed et al., 2002). By instinct, it may be expected that a creditor would be more interested in an evaluation of cash flows because of business operations. This is because a majority of the agencies that deal with the rating of credit, for instance, Standard and Poor's, make use of cash flow as a credit quality measure (Ahmed et al., 2002).

Jones et al. (1997) performed a survey to assess what information could be of prime importance to individuals. Based on the responses of the creditors, whose members were increasingly higher than that of the managers and the investors, they claimed that they relied on the applications of the operating cash flows for the purposes of arriving at sustainable decision.

DeFond and Hung (2003) reported that the cash flows play a significant role for forecasting the future performance of a company. Hence, it has been observed that analysts have a tendency to release forecasts on operating cash flows at a time when it has become quite clear that earnings per share could not prove reliable in terms of evaluating the future of a firm. For example, high volatility earnings, coupled with a poor financial health of a firm act as a signal that the firm in question could be faced with a certain amount of distress and this therefore calls for a keen assessment of the cash flows.

A number of empirical studies that have been carried out have revealed that the level of quality with which firms in a given economy is governed tend to impact greatly on the valuation of such companies. This is based on several indicators of measurements, such as Tobin's Q (Gompers et al., 2003; Bebchuk & Cohen, 2005; Cremers & Nair 2005). The available literature on this issue appears to pinpoint fundamental governance measures, which emphasize the connection with the valuation of a firm. These measures include an annual selection of the members of the board to a corporation, option re-pricing, and the level of attendance to the annual general meetings by the various directors of a firm.

The users of the various financial statements of a firm find cash flows to be a useful piece of information, especially as a way of knowing how cash, a vital resource in a business entity, comes into a firm and how it is utilized (Rose et al., 2007). The use of cash flow is important not only for the professionals who manage a business entity but also, the rest of the stakeholders of the company who will be impacted on by the utilization of cash flow ratios as well as the planning and analysis tools. A cash flow statement categorizes all the cash that flows into and out of a business into three classes, which are, operating activities, investing activities as well as financing activities.

Available literature has sought to draw a correlation between the performance and the valuation that a firm can receive to the level of corporate governance. Earlier studies that have been conducted in this area were able to discover an association between the individual provisions of internal governance, as well as Tobin's Q (Bhagat& Black, 2002). Whereas the study that was carried out by Bhagat and Black failed to realize a connection between Tobin's Q and a number of outside directors to a given firm, Callahan and colleagues (2003) managed to realize a positive correlation between Tobin's Q and a firm's board sizes.

### 2.1 Research gap

Even though there are numerous ways through which cash flow may be used as a yardstick for the financial performance of companies, nevertheless this research study is more concerned with the use of cash flow ratios as described by Giacomino and Mielke (1993). These ratios are two folds. First, we have the sufficiency ratios that include the long-term debt repayment, cash flow adequacy, reinvestment, dividend payouts, impact of depreciation write-offs, and debt coverage. On the other hand, there are also the efficiency ratios that consist of the operating index, cash flow to assets, and cash flow return on assets.

### 2.2 Objectives of the study

Cash flow ratio analysis is not a very simple procedure. For determining cash flow ratios we always have to consider the nature and type of business as well as the judgment of the manager. Cash flow ratio analysis is to some extent risk analysis. Traditional methods of ratio analysis are not feasible for decision making. A number of drawbacks faces the traditional methods of financial analysis that the companies are using for a long term to judge their financial performance.

In cash flow, ratio analysis different ratios have been computed to judge loop holes of the financial statements. For example, the cash flow sufficiency ratio determines the ability of a company to generate sufficient cash to pay off the available debts and facilitates reinvestment initiative. On the other hand, the balance sheet shows static data, which indicates those data, which measured at a given point in time. The presence of random non-cash allowances on income statements is another drawback (Fabozzi & Markowitz, 2002). More specifically the objectives of the study are as under,

- 1) To measure the different efficiency ratios from five different sectors,
- 2) To measure the different sufficiency ratios from five different sectors,

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3) To measure the performance of the selected companies from five different sectors.

*2.3 Data & Sample design:* The data of CMC Ltd. for the period 2004-2013 used in this study have been taken from the secondary sources i.e. Capitaline Corporate Database of Capital Market Publishers (I) Ltd. Mumbai. The data have been selected on the basis of purposive sample.

# 2.3 Methodology of the Study:

From the past studies, it is clear that the measurement of performance through conventional ratios is no longer feasible in the competitive environment. In this study, we used Liquidity ratio, Solvency ratio and Profitability ratios by using Cash flow from operating activity.

1. Liquidity Ratio: It is the ratio of Cash flow from operating activity to Current Liabilities. Operating cash flow to current liability is an alternative to current ratio. The formula of this ratio is

Liquidity Ratio =  $\frac{\text{Operating cash flow}}{\text{Current Liability}}$ .

This ratio allows us to tell if a business is generating enough cash from operations to meet these liabilities. Higher the ratio, better the liquidity position of the company.

2. Solvency Ratio: It is the ratio of Cash flow from operating activity to Total Liabilities. This ratio provides an indication of a company's ability to cover total debt with its yearly cash flow from operation. The formula of this ratio is

Solvency Ratio  $= \frac{\text{Operating cash flow}}{\text{Total Liabilities}}$ .

The higher the percentage of the ratio, the better the company's ability to carry its total debts.

3. Solvency Ratio: It is the ratio of Cash flow from operating activity plus Interest to Interest. It is a combination of both debt ratio and profitability ratio. It is used to determine how easily a company can pay interest on outstanding debt. The formula of this ratio is

Solvency Ratio = 
$$\frac{\text{Operating cash flow} + \text{Interest}}{\text{Interest}}$$

It measures the margin of safety a company has for paying interest during a given period, which a company needs in order to survive future financial hardship. Interest coverage ratio, less than one indicates that the company is not generating sufficient revenues to satisfy its interest expenses.

4. Profitability Ratio: It is the ratio of Operating cash flow to total revenue. This ratio gives an idea of the company's ability to turn sales into cash. The formula of this ratio is

Profitability Ratio =  $\frac{\text{Operating cash flow}}{\text{Total Revenue}}$ . The greater the amount of operating cash flow, the better the position of the organization. There is no standard guideline for the cash flow margin.

5. Profitability Ratio: It is the ratio of Operating cash flow to Net income. Instead of P/E ratio we can use this ratio. The formula of this ratio is

Profitability Ratio  $=\frac{\text{Operating cash flow}}{\text{Net Income}}$ 

In other words, a higher ratio means that the firm's earnings are of a higher quality. This ratio remains below one for an extended period could be an indication that the company will need to raise money to fund its operations.

In this research study, we also used two special types of ratios. They are efficiency ratios, sufficiency ratios.

1. Efficiency Ratios: *Efficiency ratios* can be defined as a standard of measurement for the quality of a particular businesses' receivables and the efficiency by which that business utilizes its assets. In this study, we used three efficiency ratios. They are Cash flow to sales ratio, Operations index and Cash flow returns on assets.

a) Cash flow to Sales Ratio: This ratio gives the cash flow as a percentage of the sales ratio. The cash flow used for this ratio (in fact, for all cash flow ratio analyses) is the cash flow from operations (CFO). The other two cash flows, i.e., cash flow from financing (CFF) and cash flow from investments (CFI), are not involved. Here sales mean net sales. With the help of following formula, we can compute the said ratio.

Cash flow to Sales ratio  $=\frac{\text{Operating Cash Flow}}{\text{Net Sales Revenue}}$ .

The ratio determines the capacity of the company to incur cash from net operations, which can be equated to the sales amount generated by the company.

b) Operations index: The operations index compares the operating cash flow with the profit of the company before payment of income tax. The formula for the ratio is below:

Operations Index  $= \frac{\text{Operating Cash Flow}}{\text{Operating profit before Income Tax}}$ .

The operating cash flow takes into account the changes in working capital such that the disclosures (or the lack thereof) determine the oversight or the attention of the company of subject in the quality of their business decisions that will turn potential earnings.

c) Cash flow returns on assets: The formula displays the amount of cash that a company is generating in proportion to its asset. In this case, the cash flow from operations (CFO) has been used for the calculation purposes. This calculation can also be done directly using the financial statements of the company through the formula:

Cash flow return on Assets  $=\frac{\text{Operating Cash Flow}}{\text{Total Assets}}$ 

The indication of the Cash Flow return on Assets allows us to assess the company's business decisions regarding capitalization.

Sufficiency ratio: Sufficiency can be defined as the capacity of the business to settle it financial requirements.

Given the definition of sufficiency, a *cash flow sufficiency ratio* can be construed as the ability of a particular company to generate a sufficient amount of funding (Cash) to meet the company's basic obligations. These include the payment of the company's long term debts, acquisition of assets and the payment of share holders' dividends.

a) *Long-term debt payment:* Long term debt repayment formulas monitor the adequacy of the flow of cash to settle the long term financial liabilities and payments of the installments of the company's debt obligations on a yearly basis. The formula of this ratio is

Long Term Debt repayment  $=\frac{\text{Long term Debt Payments}}{\text{Operating Cash Flow}}$ .

Greater the ratio deemed from the above calculation indicates that the company has the capacity to withstand the possibility.

*b) Dividend payout:* This ratio is found by dividing the dividend per share by the earnings per share and is expressed as a percentage. It is a standard of measurement of the percentage of the company's profits, which is giving back to the shareholders in the form of the dividends.

Dividend Payout Ratio  $=\frac{\text{Dividends per Share}}{\text{Earnings Per Share}}.$ 

The ratio used by investors to determine whether the company will generate a return on their investments for long term duration.

c) *Cash flow adequacy ratio:* The process is one of the most detailed in the determination whether the cash flow of a particular company is enough to meet current commitments, particularly in the area of asset acquisition payout of dividends and payment of financial obligations (Accounting and Tax, 2009). The formula is shown below:

Cash Flow Adequacy Ratio  $= \frac{\text{Operating Cash Flow}}{\text{Fixed Assets Long- term Debt paid + Cash Divide}}$ .

From past experience, a ratio exceeding the value of 1 indicates that the company has good financial health, while a ratio less than 1 might indicate that the company has liquidity problems.

d) *Reinvestment Ratio:* This ratio determines the amount of cash that the company intends to pour back into its business. The formula is

Reinvestment Ratio  $= \frac{\text{Inc. in fixed assts. + Inc. in WC}}{\text{Net income + Non cash Exp. - Non cash sales - Div}}.$ 

e) *Depreciation- amortization Ratio:* This ratio depicts the real state of the profitability of the company.

Depreciation- amortization Ratio = <u>Depreciation expenses + Amortization Expenses</u> <u>Operating Cash Flow</u> f) Debt coverage ratio:

This ratio measures the capability of the company to pay the annual interest and principal on its debt. Obviously, the ratio will come into picture only for companies who actually rely on debts. This ratio is the least analyzed one, as most of the companies did not have this component.

Debt Coverage Ratio  $=\frac{\text{Total Operating Income}}{\text{Total Debt Service}}$ .

For analyzing the data statistical tools like arithmetic mean, standard deviation coefficient of variation etc. have been applied at appropriate places.

# 3. Findings of the Study

From Table 1 (See Appendix) it is found that in IT sector the ratio between cash flow from operating activity and current liabilities of CMC is highest in the last year of our study period i.e. 2013(0.828) and lowest in the starting year of our study period i.e. 2004(-0.062). On an average, it is 0.264. Whereas its SD is 0.322 and COV is 121.99. It implies that throughout the study, CMC maintained a low and volatile liquidity ratio, which is not at all desirable for the organization.

The ratio between cash flow from operating activity and total liabilities of CMC is highest in the year 2009(0.27) and lowest in the year 2004 (-0.078). On an average, it is 0.094. Whereas its SD is 0.122 and COV is 129.84. It implies that throughout the study, CMC maintained a low volatile solvency ratio and which is not consistent throughout the study period.

The solvency ratio i.e. the ratio between cash flow from operating activity plus interest expenses to interest expenses of CMC is highest in the year 2010(88.38) and lowest in the year 2005(-4.78). On an average, it is 27.67. Whereas its SD is 32.31 and COV is 116.77. It implies that during the first half of the study, the company maintained a low and sometimes negative solvency ratio, but during the second half of the study period the company maintained high ratio. The volatility of the ratio is low. But from consistency point of view it is quite inconsistent.

From Table 1, it is found that the profitability ratio i.e. the ratio between cash flow from operating activity and total revenue of CMC is highest in the end of our study period i.e. 2013(0.212) and lowest in the starting year of our study period i.e. 2004(-0.02). On an average, it is 0.074. It shows poor investment qualities of the organization. Its SD is 0.089 and its COV is 121.30. It implies that the volatility in the ratio is very negligible but the ratios are quite inconsistent throughout the study period.

The profitability ratio of CMC is highest in the last year of our study period i.e. 2013(0.216) and lowest in the starting of our study period i.e. 2004, 2005(-0.02). On an average, it is 0.075. It implies the poor earning capability of the concern. Its SD is 0.0912 and its COV is 121.46. It signifies that such ratio is less volatile but very inconsistent.

From Table 1, it is observed that the cash flow to sales ratio of CMC is highest in the year 2013(0.216) and lowest in the year 2004(-0.02). On an average, it is 0.075. It implies that the company's investment decisions as well as management's decisions relating to variable cost are not at all significant. Its SD is 0.912 and its COV is 121.46. It signifies that the ratio is less volatile and inconsistent throughout the study period

The operations index ratio i.e. the ratio between cash flow from operating activity and operating profit before tax of CMC is highest in the year 2009(1.734) and lowest in the year 2004(-0.217). Negative cash flow ratio, probably due to negative cash flow from operating activity. On an average, it is 0.516. It depicts the failure of the company for taking quality business decisions. We can also say that the accounting policies and standards adopted by the company are not at all impressive. Its SD is 0.619 and COV is 120.12. It implies the low volatility and high inconsistency in the ratio.

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From Table 1, it is found that the cash flow returns on assets ratio i.e. the ratio between cash flow from operating activity to total assets of CMC is highest in the year 2009(0.272) and lowest in the year 2004(-0.039). On an average, it is 0.094. It signifies the poor business decision regarding capitalization. We can say the efficiency or productivity of the company is not at all impressive. Its SD is 0.113 and COV is 119.86. It implies the low volatility but the ratios are inconsistent.

The long term debt payment ratio i.e. the ratio of long term debt payment to cash flow from operating activity of CMC is highest in the year 2006(29.15) and lowest in the year 2005(-4.62). On an average, it is 4.686. Negative ratio is the result of negative cash flow from operating activity. It signifies the poor debt management of the organization. It enhances the debt forfeiture of the organization. This reason may insist the organization to take more current debts for the safety of the organization. Its SD is 11.003 and COV is 234.82. The ratio is volatile and very inconsistent.

From Table 1 it is found that the dividend payout ratio i.e. the ratio between dividend per share to earnings per share of CMC is highest in the year 2013(0.345) and lowest in the year 2005(0.164). On an average it is 0.23. It signifies the company is able to generate a return on their investment for long run. It helps the company to increase the stock price in the market. Its SD is 0.0645 and COV is 28.074. It implies that the volatility in the ratio is low and the company is quite consistently maintained the ratio during the study period.

The cash flow adequacy ratio of CMC is highest in the year 2009(1.737) and lowest in the year 2004(-0.121). On an average, it is 0.558. It signifies poor financial health of the company. The liquidity problem of the organization is also exists during the study period. Its SD is 0.676 and COV is 121.12. It portrays the low volatility and high inconsistency in the ratio over the study period.

From Table 1 it is observed that the reinvestment ratio of CMC is highest in the year 2011(0.909) and lowest in the year 2009(-0.684). On an average, it is 0.213. It signifies that the reinvestment in business is poor during the study period. It also depicts the poor management decision on the part of the organization regarding its reinvestment. Its SD is 0.532 and COV is 250.15. It implies the lower volatility in the ratio. It also depicts high inconsistency presents in the ratio during the study period.

From Table 1 it is found that the Depreciation-amortization expenses ratio of CMC is highest in the year 2006(3.859) and lowest in the year 2005(0.73). On an average, it is 0.551. This ratio is too large. Normal limit of the ratio is 0.05. Hence, the ratio signifies the financial inefficiency of the company. So, steps should be taken immediately to protect wearing of capital. Its SD is 1.43 and COV is 259.84. It implies that the volatility in the ratio is low but high inconsistency presents in the ratio.

The Debt coverage ratio of CMC is highest in the year 2009(55.68) and lowest in the year 2007(9.49). On an average, it is 22.57. It depicts that the company successfully covered the financial obligation. We can say that the company adequately managed its assets to cover the payments and the operating expenditures. Its SD is 13.985 and COV is 61.96. It implies that the volatility and inconsistency in the ratio throughout the study period.

# 4. Conclusions

In order to strengthen corporate governance viewpoint, the auditors and accountants help us by showing the red flags or fraud signals for unusual and unexpected happenings in financial statement. For this purpose, ratio analysis is an effective approach for evaluating the information relating to financial statement because it reduces the financial data to a set of interlinked information that highlight operations and the results of a company's cash management practices. In this study, we have found out different cash flow ratios. From the results of the liquidity and solvency ratio, we can conclude that CMC maintained a moderate level of liquidity and solvency during the study period. From the profitability ratio, we can conclude, on an average, that the ratio is very low and below the standard. The company maintained its efficiency ratio very moderately. Sufficiency ratios of the organization are good enough to restore its financial health.

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Table 1Cash Flow Ratios of CMC

Debt Coverage Ratio	20.3612	11.8447	11.2884	9.49180	12.3570	55.6818	33.7777	23.7811	21.069	26.0397	22.57	13.98	61.96
Dep- Amort. Ratio	-0.7243	-0.7252	3.8590	2.3073	0.3805	0.0559	0.0865	0.1399	0.0667	0.0588	0.55	1.430	259.84
Reinvest- Ment Ratio	0.2375	0.8525	0.6862	0.3731	0.2513	-0.6844	-0.0068	0.9094	-0.5057	0.0165	0.213	0.533	250.15
Cash Flow Adequacy Ratio	-0.1207	-0.0978	0.0174	0.0276	0.1852	1.7373	0.7967	0.4765	1.1932	1.3664	0.56	0.678	121.12
Dividend Pay Out Ratio	0.1801	0.1635	0.1736	0.3059	0.2985	0.1881	0.188	0.2155	0.2387	0.3448	0.23	0.064	28.07
Long Term Debt. Payment Ratio	-2.418	-4.624	29.154	20.584	2.805	0.120	0.318	0.519	0.221	0.177	4.68	11.00	234.82
Cash Flow Returns On Assets Ratio	-0.0390	-0.0302	0.0057	0.0085	0.0436	0.2720	0.1512	0.1016	0.2215	0.2082	0.094	0.113	119.87
Operations Index Ratio	-0.2171	-0.1958	0.03454	0.12048	0.39777	1.73409	0.77602	0.51993	1.00211	0.98597	0.516	0.619	120.12
Cash Flow to Sales Ratio	-0.0203	-0.0182	0.0030	0.0051	0.0288	0.1488	0.0930	0.0809	0.2132	0.2160	0.075	0.091	121.46
Profitability Ratio	-0.0203	-0.01826	0.003039	0.005118	0.028849	0.148841	0.093001	0.080907	0.213243	0.216051	0.075	0.091	121.46
Profitability Ratio	-0.01962	-0.01804	0.002971	0.005068	0.027862	0.147959	0.091819	0.078987	0.207582	0.211874	0.074	0.089	121.30
Solvency Ratio	-3.586	-4.781	1.583	1.870	6.761	38.169	88.384	34.024	55.095	59.166	27.67	32.30	116.76
Solvency Ratio	-0.078	-0.034	0.005	0.009	0.047	0.270	0.159	0.105	0.223	0.2305	0.094	0.122	129.84
Liquidity Ratio	-0.062	-0.061	0.012	0.021	0.100	0.524	0.324	0.263	0.694	0.827	0.264	0.322	121.99
Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Avg.	SD	COV

Avg.- Arithmetic Mean, SD- Standard Deviation, COV- Coefficient of Variation. Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers(I) Ltd., Mumbai.

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