



Evaluation of Financial Soundness through Bivariate Accounting Based Performance Measurement

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Abstract

This paper is empirical investigation of the evaluation of financial soundness of the firms operating in pharmaceutical sectors in India, and they are privately owned public limited companies. The secondary data from the published annual reports of the five years are taken into consideration to form the financial soundness. I investigated two major privately owned public limited pharmaceutical manufacturers, with five years data.

This paper also focuses on the conflicting dimensions of involvement of individual ratios in framing the conclusion with respect to financial soundness in traditional way.

Researcher has formed the bivariate relationship between set of financial ratios instead of traditional performance measurement of individual ratio. That is among other characteristics, researcher has used a state space of time, with time series data, and based on that formed the linear equation to verify the validity of the data base.

It argues that advising is congruent while monitoring is dissonant with respect to measurement and analysis of financial soundness. This analysis provides possible existences of set of ratios relationships. The implication of the model coincides with observed features of financial ratio, and additionally tries to establish the statistical measurement and confidence level with respect to set of them. The paper has provided a strong relationship between the sets of ratios based on four distinct but interrelated issues.

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Key Words: Assessment of performance; chi-square; correlation coefficient; dividend payout ratio based on cash profit; total debts to owned funds; dividend payout ratio based on net profit.

Introduction

Researcher feels that financial strength reveals the ability of a firm to sustain itself in the long run. According to R. D. Kennedy and S.Y.McMullen the financial strength refers to the ability of a business to meet the claims of creditors, to take advantage of business dealings or expansions which require presently owned resources, additional funds, favourable credit ratings, and in addition to continue dividend payments without interruptions. ⁽¹⁾ The financial strength and soundness of a firm may be analysed with the objectives to find out whether a firm has enough funds to provide for infrastructure, through capitalization it is possible to run effectively and efficiently, the type of capital structure, and type of affiliation of fixed assets to the long term funds.

Considering the above parameters, the researcher has strong belief that, measurement and analysis should focus on four distinct but interrelated issues, by establishing the correlation and also bivariate relationship between two accounting ratios calculated from the annual financial reports. Each ratio imparts information in an absolute and comparative sense.

Literature Review

Classical financial analysis evolved in response to fundamental changes in the pharmaceutical business. Historically, the primary mission of finance personnel is to determine the profitability of the firm. The recent trend in the pharmaceutical sector in India needs the long term survival of firm as critical parameters. The finance personnel normally focused on a working capital, trying to determine whether there would be sufficient assets to repay the loan if the business had to

be liquidated. Balance sheets and income statements were carefully reviewed, but cash flow aspects from shareholders' view were largely ignored.

Although the univariate (pertaining to one variable) models are still in use today in many institutions, most academicians and an increasing number of practitioners seem to disapprove the ratio analysis as a means of assessing the performance of a business firm. Many respected theorists downgrade the arbitrary rules of thumb (such as firm comparison) that are widely used by practitioners and favour instead the application of more rigorous statistical techniques. In some respects, however, these latter techniques should be viewed as a refinement of traditional ratio analysis rather than a radical departure from it.⁽²⁾

From the above, the researcher thought, to establish relationship between accepted financial parameters by adopting the Novel approach. Each ratio imparts information in an absolute and comparative sense, those needs to be studied with relative parameters.

Research Methodology

Traditionally, researcher would have preferred to examine a list of ratios in time period t in order to make predictions about other firms in the following period, $t+1$. But considering the limitations of financial ratio analysis to understand and frame the theoretical development, a Novel approach has been thought for, which indicates the relationships between two set of financial ratios.

Novel approach concerns the assessment of a firm's long-term prospects within its industrial environment. The analysis is based on four premises. First, a firm must consider the relationship between two groups of variables like cash profit margin to dividend payout ratio based on cash profit, to achieve a competitive advantage to remain profitable by plowing back of profit. Second, the ways and means of achieving earnings per share as a part of operating profit margin. Thirdly, the competitive advantage to equity providers with respect to return earned from the employment and utilization of assets in effective and efficient way. Finally, as industry evolve, the ways of deployment of total debt to owned funds and its impact on dividend pay out ratio

with respect to net profit. The analysis involves three steps: determination of group of ratios to be chosen to establish the relationship, frame the hypothesis with respect to group of ratios, and finally make the strategic evaluation by applying the mathematical and statistical workings on group of data.

A model greatly, facilitates our understanding of a phenomenon and eventually, its exploitation. Models for measuring the relationships among group of ratios are no exception. With a novel model, researcher seeks to determine, directly or indirectly, the answer to questions. Models are often constructed on theories. To generate more accurate prediction of financial soundness, additional variables can be added to this model.

Ratios attempts to isolate a problem in construct that can be studied, refined, tested, and if effectively profitably implemented. Many separate elements go into the construction of a financial soundness novel model. First relationship must be postulated among the variables that seem to affect the risk of cash distribution among equity providers; this is where theory enters in. Secondly, the relationship postulated among operating profit margin and earnings per share. Thirdly, the return on net worth depends on the return on capital employed. Lastly, dividend payout ratio based on net profit dependability on total debt to owned funds. Then, to derive a formal model, a set of tools must be employed to estimate or stimulates outcomes. A body of data is crucial at this point, because a model cannot be created in vacuum. Lastly, a series of tests must be applied to establish that the model does, indeed, perform as expected. There are also times when the only way to unearth new relationships is to mine data without having any particular theory in mind. Econometric techniques such as central value theorem, variability of data, correlation and linear analysis model used to have the acceptability of the four parameters taken in to consideration.

Rule based or expert systems are used to try to mimic in a structured way the process that an experienced analyst uses to arrive at the financial analytical decision. Rule based systems are characterized by a set of decision rules, a knowledge base consisting of data such as

financial ratios used by the researcher in obtaining inferences on a particular firm.

Data Set and Samples

Recent heavy activity of financial distress and bankruptcy, including the sell out of few leading pharmaceutical corporate in India, provided the more fertile environment to find out the novel application of ratio analysis to study the financial position of pharmaceutical sectors in India. Recognizing this need, researcher made a careful selection of non-bankrupt i.e., non distressed family controlled firms engaged in Pharmaceutical industries in India. The samples selected are Cadila Healthcare Limited (CHL), and Torrent Pharmaceuticals Limited (TPL). After the firms were selected, balance sheet and income statement are collected for the period of last five financial years, i.e., year 2003-4 to 2007-8. The researcher have intentionally omitted the period of 2008-09, because it was the year when economy at large have sustained higher level of recession in India too. Considering the normal economical and policy model of government, data of five years are taken in to consideration to frame the model.

Variables

This study undertakes the identification of the key variables that influence the financial performance of pharmaceuticals manufacturers in India. Choices of variables have been greatly influenced by the concept of financial ratio analysis as used by financial practitioner all over the globe. The researcher has tries to select the variables with respect to financial ratios and established the bivariate relationship between two set of ratios. All the variables stated below have been used to test the hypothesis of this study. They include some independent and some dependent variables.

1. Cash Profit Margin, indicates cash profit earned as percentage of sales.
2. Dividend payout ratio based on cash indicates the proportion of net cash earnings distributed among the equity providers.
3. Operating profit margin explains the earnings before interest and tax to sales ratio.

4. Earnings per share indicate the profitability of the shareholders investment. It indicates the firm's earnings power on per share.
5. Return on capital employed indicates the return earned on accounts of asset utilization.
6. Return on net worth indicates how well the firm has used the resources of equity providers.
7. Dividend payout ratio based on net profit indicates the proportion of net earnings distributed among the equity providers.
8. Total debt to owned funds supports to know the proportion of interest bearing and non-interest bearing debt i.e., funded debt in the capital structure of the firm.

All the above variables have relationship that ultimately affects financial soundness of the pharmaceutical firms specifically operating in India. It is expected that there is a negative relationship and/or positive relationship between set of ratios; the formation of problem is done through the development of null hypothesis as explained hereunder.

Hypotheses Testing

Since the objective of this study is to examine the relationship between the different sets of ratios and financial soundness, the study makes a set of testable hypothesis {the Null Hypothesis H_0 versus the Alternative hypothesis H_1 }. The evaluation is done with respect to 5 per cent level of significance (α).

H_{01} There is significant relationship between Cash profit margin and Dividend payout ratio based on cash profit.

H_{02} There is significant relationship between Operating profit margin and Earnings per share (EPS).

H_{03} There is significant relationship between Return on Capital Employed and Return on Net Worth.

H_{04} There is significant relationship between Total debts to owned funds To Dividend payout ratio based on net profit.

Analysis used in Study

The mean value is a value which is calculated for a group of data, i.e., specific relative two variables relationship, and which is used to describe the data in understandable way. The standard deviation (σ) is calculated to summarize how far away from the mean or average (μ) the data values typically are. It is used to measure of spread because it improves interpretability by removing the variance's square and expressing the deviations in the original value. It reveals the variability within the data set in absolute term. To get the understanding in relative way, we used the coefficient of variations (ϕ).

The correlation coefficient (Γ) techniques as developed by Pearson have been used in measuring the closeness of the relationship between set of ratio variables.

The computation concerning the degree of the closeness is based on the linear equation; which has been used to measure the estimated value for the chi-square calculation. Chi-square (χ^2) used to test for significant difference between observed relationship between two variables of data among specific categories and expected relationship based on the null hypothesis.

This study uses the panel and pooled data analysis of cross-sectional and time series data. Here the cross-sectional means the pooled ratios relationship based analysis. The pooled linear equation has been formed, for each sample under study, and based on that the trend values have been estimated. The pooled linear equation model is one where both intercepts and slopes are constant, where the cross section of independent ratio are pooled together in a single column assuming that there is no significant cross section or temporal effects, to work out the trend based dependent variable value. Then the actual value of dependent variable compared with trend estimated value, and Chi-square is applied.

To frame the theory, researcher has also attempted to work out the mean, standard deviation, coefficient of variation and coefficient of correlation.

The general form of model is:

TDV_{it} : Trend value for dependent variable of firm i at time t ; $i = 1, 2$ firms

β_0 : The intercept of equation

β_i : Coefficient of X_{it} variables

X_{it} : The different independent variables for measurement of financial soundness of firm i at time t

t : Time = 1, 2, ... 5 years

ε : The error term

Specifically, when the conversion of the above model into specified variable to be done, it change with each hypothesis under study. The following four hypothesizes have been framed for study.

$$TDV_{it} = \beta_0 + \beta_i X_{it} + \varepsilon_i$$

Hypothesis number 1:

TDV_{1t} means Dividend Payout Ratio based on Cash Profit

X_{1t} means Cash Profit Margin

Hypothesis number 2:

TDV_{2t} means Earnings Per Share

X_{2t} means Operating Profit Margin

Hypothesis number 3:

TDV_{3t} means Return on Net Worth

X_{3t} means Return on Capital Employed

Hypothesis number 4:

TDV_{4t} means Dividend Payout Ratio based on Net Profit

X_{4t} means Total Debt to Owned Funds

Data Analysis and Inferences

The Annexure A indicates the components used in performance measurement for the both firms under study, i.e., Cadila Healthcare Limited, and Torrent Pharmaceuticals Limited.

The Annexure B indicates the statistics of ratios used in performance measurement along with calculation of mean or average (μ), coefficient of variations (ϕ), chi-square (χ^2) and correlation coefficient (Γ).

Hypothesis 1: Cash Profit Margin (CPM) To Dividend Payout Ratio on Cash Profit (DPRCP)

This hypothesis tries to evaluate the attitude of management to maximize the benefit to public shareholders at large by providing them the regular and consistent return in the form of cash. This ratio indicates the willingness and attitude of the management to distribute the reasonable portion of cash profit by way of dividend per share.

The estimated value for chi-square for H_{01} worked out by following equation:

For CHL: Expected DPR (CP) = 35.689 - 0.848 CPM

For TPL : Expected DPR (CP) = 43.203 - 1.239 CPM

The CHL's μ is 1.26 against of TPL's 1.52; with ϕ is 0.08 and 0.32 respectively. This indicates that the average or mean return provided by TPL is better, but consistency in return is maintained by CHL. At the same moment, the Γ of TPL is negative to the tune of 85%, and showing the direct inverse relationship between independent variable and dependent variable. In case of CHL, the Γ is negative to the tune of 31% which indicates that, CHL does not follow the precise practices, but tries to take some steps to maintain the financial need of shareholders at large. Hence, it can be concluded that, CHL management is better to maintain the equilibrium between external shareholders need and firm's need. The calculated value of χ^2 is lower than the table value of 9.488 at 5% α for both firms under study. This indicates that the H_{01} accepted. It indicates that there is significant relationship between CPM and DPRCP in case of CHL.

The calculated value of χ^2 TPL is greater than CHL. It indicates that, CHL follows the strong relationship between CPM as independent variable and DPRCL as dependent variable. In case of TPL the moderate relationship exists between two variables.

Hypothesis 2: Operating Profit Margin (OPM) To Earnings per Share (EPS)

This hypothesis signifies two types of relationship – the relationship between operating profit margin (independent variable) and earnings per share (dependent variable). The operating profit at large reflects the earning ability of the firm, i.e., economical productivity of the

borrowed funds and owners' equity invested in assets and represents an overall measure of efficiency of the business.⁽³⁾ The earning per share indicates the profitability of the shareholders' investment.⁽⁴⁾ The estimated value for chi-square for H_{02} worked out by following equation:

For CHL : Expected EPS = 3.479 + 1.017 OPM

For TPL : Expected EPS = 10.894 + 0.823 OPM

The CHL's μ is 1.22 against of TPL's 1.03; with ϕ is 0.17 and 0.55 respectively. This indicates that the average or mean return and consistency provided by CHL is better in compare to TPL. At the same moment, the Γ of both firms is positive, and Γ of CHL is greater than TPL, which indicates the stronger positive relation ship exists in case of CHL between OPM and EPS. The CHL indicates the positive signs between two variables to the extent of 28% in compare to of TPL's 18%. The difference between two Γ is insignificant, hence it can be concluded that, the EPS is to certain extent influenced by the operating profit of the firm. The calculated value of χ^2 is lower than the table value of 9.488 at 5% α for CHL (2.46) while higher for TPL (23.26). This indicates that the H_{02} is accepted in case of CHL, while rejected for the TPL. It indicates that there is significant relationship between OPM and EPS in case of CHL, while there is no relationship exists in case of TPL. It indicates that, TPL does try to satisfy their need of shareholders' at the cost of maintaining sustainable operating cycle growth, through adoption of proper capital structuring decision. This conclusion also being supported by H_{04} . H_{04} indicates the relationship between total debts to owned funds to dividend pay out ratio based on net profit. The μ of H_{04} is greater in case of TPL than of CHL. Hence, in this case TPL is taking much higher care of equity providers in comparison to CHL.

Hypothesi 3: Return on Capital Employed (RCE) To Return on Net Worth (RNW)

The return ratios measure the relationship between a return and a specific investment made in the firm by various group of investors, creditors, and owners'.⁽⁵⁾ RCE considers the return to investors and owners on all asset invested in the firm. The RCE is an important tool

for management as it helps in decision making and in establishing control mechanism. Ray Garrison considers it the only measure which can be said to show satisfactorily the return obtained from capital employed.⁽⁶⁾

Return on net worth indicates the large amount of appropriations, and scope of the firm to attract the fresh funds from the equity shareholders, in addition to attract the high price for equity shares on stock exchange or in a merger.⁽⁷⁾

An attempt has been made to find out the impact on return on net worth based on return on capital employed. It indicates the firm's ability to pass on the return to the equity shareholders from total earning potentiality.

The estimated value for chi-square for H_{03} worked out by following equation:

For CHL : Expected RONW = $3.380 + 1.032ROCE$

For TPL : Expected RONW = $13.928 + 0.354ROCE$

The TPL's μ is 1.12 against of CHL's 1.21; with ϕ is 0.22 and 0.06 respectively. This indicates that the average and consistency of CHL is better in compare to TPL. At the same moment, the Γ of TPL is positive to the tune of 51%, and showing the direct relationship between independent variable (RCE) and dependent variable (RNW). In case of CHL, the Γ is also positive and it is to the tune of 66% which indicates that, CHL does follow the precise practices to have optimum utilization of resources provided by equity shareholders and pass on the earnings to equity shareholders to greater extent than TPL. The TPL management needs to concentrate to find out the lacunae in asset utilization and management. Hence, it can be concluded that, CHL management is better to maintain the equilibrium between assets acquisition and utilization by proper deployment of funds provided by external shareholders. The calculated value of χ^2 is lower than the table value of 9.488 at 5% α for both firms under study. This indicates that the H_{03} accepted. It indicates that there is significant relationship between RCE and RNW. The calculated value of χ^2 of CHL (0.37) lower than of TPS (2.98). It indicates that, CHL follows the strong relationship between RCE as an independent variable and RNW as dependent variable. In case of TPL the moderate relationship exists

between two variables. Hence, the TPL needs to study their asset financing in a proper way.

Hypothesis 4: Total Debt to Owned Funds (TDOF) To Dividend Payout ratio based on net profit (DPRNP)

The earnings per equity share can be increased by the use of non-equity or debt capital. Trading on equity indicates utilization of non-equity sources of funds in the overall capital structure of the firm in order to increase the earning available to the equity shareholders.⁽⁸⁾ The current shareholders and potential investors' earnings per share and dividend per share as a key measure of performance. So there is a need to establish the relationship between the impacts on dividend pay out ratio by utilization of trading on equity by firm. The dividend pay out ratio establishes the relationship between dividend per share and earnings per share.

This hypothesis tries to evaluate the attitude of management to maximize the benefit to equity shareholders at large by providing them the regular and consistent return in the form of cash. This ratio indicates the willingness and attitude of the management to enhance the dividend payout ratio by using the non-equity funds in the profitable way.

The estimated value for chi-square for H_{03} worked out by following equation:

For CHL: Expected DPR (NP) = $27.947 + 1.729 \text{ TDOF}$

For TPL : Expected DPR (NP) = $28.865 + 2.622 \text{ TDOF}$

The CHL's μ is 46.91 against of TPL's 49.28; with ϕ is 0.17 and 0.21 respectively. This indicates that the average behaviour for financing and consistency in return to equity shareholders followed by CHL is better in compare to TPL. At the same moment, the Γ of both firms is positive, and Γ of CHL is lower than TPL, which indicates the stronger positive relation ship exists in case of TPL between TDOF and DPRNP. The TPL shows stronger relationship to the extent of 11% in compare to of CHL's only 6%. The difference between two Γ is

significant, hence it can be concluded that, the DPRNP is greater extent influenced in case of TPL in compare to CHL based on changes in TDOF. The calculated value of χ^2 is lower than the table value of 9.488 at 5% α for CHL (0.83) while higher for TPL (5.339). This indicates that the H_{04} is accepted in case of both firms. The TPL equity share holders are facing the higher level of risk with respect to capital structuring decision in compare to CHL. This conclusion is also being supported by the mean value, coefficient of variations and H_{02} . At the nut shell, it can be concluded that that there is significant relationship between TDOF and DPRNP.

Conclusions

The research paper has revealed that financial strength indicates the ability of a firm to sustain itself in the long run, and its ability to meet the claims of creditors, to take advantage of business dealings or expansions which require presently owned resources, additional funds, favourable credit ratings, and in addition to continue dividend payments without interruptions.

The researcher has established relationship between accepted financial parameters by adopting the Novel approach. Each ratio imparts information in an absolute and comparative sense, and made an attempt to study it with relative parameters.

The novel analysis is based on four premises, i.e., 1) the relationship between two groups of variables like cash profit margin to dividend payout ratio based on cash profit, 2) the ways and means of achieving earnings per share as a part of operating profit margin, 3) the competitive advantage to equity providers with respect to return earned from the employment and utilization of assets in effective and efficient way, and 4) the ways of deployment of total debt to owned funds and its impact on dividend pay out ratio with respect to net profit.

Researcher has made a careful selection of non-bankrupt i.e., non distressed family controlled firms engaged in Pharmaceutical industries in India. The samples selected are Cadila Healthcare Limited (CHL), and Torrent Pharmaceuticals Limited (TPL), and taken in to consideration five years' annual data.

The four hypotheses has been framed and evaluated by researcher.

1. There is significant relationship between Cash profit margin and Dividend payout ratio based on cash profit. This hypothesis has evaluated the attitude of management to maximize the benefit to public shareholders at large by providing them the regular and consistent return in the form of cash. The ratio indicated that CHL follows the strong relationship between CPM as independent variable and DPRCL as dependent variable. In case of TPL the moderate relationship exists between two variables.

2. There is significant relationship between Operating profit margin and Earnings per share (EPS). The operating profit have reflected the earning ability of the firm, i.e., economical productivity of the borrowed funds and owners' equity invested in assets and represents an overall measure of efficiency of the business. The earning per share has indicated the profitability of the shareholders' investment. The TPL is taking much higher care of equity providers in comparison to CHL.

3. There is significant relationship between Return on Capital Employed and Return on Net Worth. RCE considers the return to investors and owners on all assets invested in the firm; it helps in decision making and in establishing control mechanism. Return on net worth indicates the large amount of appropriations, and scope of the firm to attract the fresh funds from the equity shareholders, in addition to attract the high price for equity shares on stock exchange or in a merger. The study have been undertaken to find out the impact on return on net worth based on return on capital employed. It indicates the firm's ability to pass on the return to the equity shareholders from total earning potentiality. The study indicated that, CHL follows the strong relationship between RCE as an independent variable and RNW as dependent variable. In case of TPL the moderate relationship exists between two variables. Hence, the TPL needs to study their asset financing in a proper way.

4. There is significant relationship between Total debts to owned funds To Dividend payout ratio based on net profit. The earnings per equity share can be increased by the use of non-equity or debt

capital, i.e., benefitting from the trading on equity. The TPL equity share holders are facing the higher level of risk with respect to capital structuring decision in compare to CHL. This conclusion is also being supported by the mean value, coefficient of variations and H_{02} . At the nut shell, it can be concluded that that there is significant relationship between TDOF and DPRNP.

The above study clearly indicates that, there is dearth need to move from traditional measurement in a simple ratio to the novel approach of relative relationship between different sets of ratios.

Areas for further research

Researcher has tried to limit the self to the measurement of performance only from the view of funds providers'. The further areas have been opened up for study and establish the relationship with respect to operating cycle of the firm.

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ANNEXURE A

Components used in Performance Measurement

Cadila Healthcare Limited

YEAR	ROCE	RONW	OPM	EPS	TDOF	DPRNP	CPM	DPRC
2003-04	20.50	26.49	16.21	22.75	.75	29.74	16.87	21.68
2004-05	18.74	21.39	17.22	20.92	.60	32.72	16.43	22.88
2005-06	19.25	22.40	18.61	26.26	.59	26.07	17.08	18.98
2006-07	20.14	23.20	17.91	16.30	.51	28.67	17.79	21.62
2007-08	17.31	22.41	16.19	18.80	.70	27.98	16.70	21.35

Torrent Pharmaceuticals Limited

YEAR	ROCE	RONW	OPM	EPS	TDOF	DPRNP	CPM	DPRC
2003-04	29.89	20.89	22.73	30.34	.00	29.74	17.30	23.90
2004-05	11.80	15.53	13.53	25.01	.62	36.46	14.32	27.14
2005-06	15.98	17.21	17.28	7.78	.64	36.63	12.80	26.95
2006-07	19.77	24.32	19.16	13.35	.60	25.62	16.02	20.21
2007-08	21.14	26.57	22.68	18.38	.58	22.27	19.77	18.40

ROCE means Return on Capital Employed

RONW means Return on Net Worth

OPM means Operating Profit Margin

EPS means Earnings Per Share

TDOF means Total Debt to Owned Funds

DPRNP means Dividend Payout ratio based on Net Profit

CPM means Cash Profit Margin

DPRC means Dividend Payout ratio based on Cash Profit

ANNEXURE B

Statistics of Ratios used in Performance Measurement

(A) Cadila Healthcare Limited (CHL)

Performance Indicators	Independent Variable	Dependent Variable	μ	σ	ϕ	χ^2	Γ
CPM to DPRC Ratio	CPM	DPRC	1.26	0.10	0.08	0.347	-0.306
OPM to EPS Ratio	OPM	EPS	1.22	0.21	0.17	2.459	0.284
ROCE to RONW	ROCE	RONW	1.21	0.08	0.06	0.367	0.6639
TDOF to DPRNP	TDOF	DPRNP	46.91	7.95	0.17	0.828	0.067

(B) Torrent Pharmaceuticals Limited (TPL)

Performance Indicators	Independent Variable	Dependent Variable	μ	σ	ϕ	χ^2	Γ
CPM to DPRC Ratio	CPM	DPRC	1.26	0.10	0.08	0.347	-0.306
OPM to EPS Ratio	OPM	EPS	1.22	0.21	0.17	2.459	0.284
ROCE to RONW	ROCE	RONW	1.21	0.08	0.06	0.367	0.6639
TDOF to DPRNP	TDOF	DPRNP	46.91	7.95	0.17	0.828	0.067