RELATIONS FINANCIAL RATIOS 14 COMPANIES IN INDONESIA WHEN THE TIME OF THE FINANCIAL CRISIS IN 1997 AND 2008

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ABSTRACT

With an open economy models used Indonesia, our country a little difficult to be able to escape the influence of global economic activity. Indonesia is one of the countries affected by the crisis in 1997 due to the Asian crisis and the position of Indonesia again depressed when the crisis Suprime Mortgage originating from the United States emerged and the crisis is still felt the impact since 2007 and began to show, and coupled with the crisis in 2008, thus making national economic growth rate of decline.

This study aims to look at how the impact of the financial crisis that occurred in 2008 on some component or financial ratio variable against 14 companies listed on the JSE. From the study it can be concluded that the relationship is not one-way and two-way as well as the correlation between variables research, including current ratio, return-to-

equity ratio, dividend payout ratio and the closing price at the time of the financial crisis of 2008.

Keywords: Granger Causality, Correlation, Current ratio, ROE, DPR, Closing Price Shares.

I.   INTRODUCTION

The collapse of Lehman Brothers, an extensive global bank, in September 2008 almost tear down the world financial system. Need taxpayer-funded bail-out is great to sustain the industry. Even so, the next credit crisis turned what was already a decline of evil into its worst recession in 80 years. Massive monetary and fiscal stimulus to prevent foreign exchange reserves in order not to depreciate, but the recovery is still weak compared with any previous post-war. GDP is still below pre-crisis peak in many rich countries, especially in Europe, where the financial crisis has evolved into a crisis of the euro. The effects of the accident was still rippling through the world economy: witness the American financial markets trembled at the Federal Reserve prepares to scale back efforts to pep up growth by buying bonds.

With hindsight and a half decades, it is clear the crisis has several causes. The most obvious is its own investors-especially Anglo-Saxon care free rational sort, who claimed to have found a way to banish the risk when in fact they just lost track of it. Central bankers and other regulators are also to blame, because they tolerated this ignorance. Macroeconomic background is important as well. The "Great Moderation" -year low inflation and stable growth fostered complacency and risk taking. A "savings glut" in Asia push global interest rate cuts. Some studies also have implications for European banks, which borrowed greedy in American money market before the crisis and use the proceeds to buy securities ingenious. All these factors come together to push up the debt in what seems to have become less risky world.

Start with ignorance financiers. The years before the crisis saw a flood of mortgage loans were not liable in the United States. Loans were distributed to the "subprime" borrowers with poor credit history who are struggling to pay them. These risky mortgages were transferred to the financial engineers at major banks, which turned it into a supposedly low-risk securities by placing a large number of them together in a pool. Pooling works when risks are not correlated each loan. Major banks argued that the property market in American cities different going up and down independently of each other. But this proved to be wrong. Beginning in 2006, Americans have national home prices slumped. Mortgage collected is used to support the securities, known as collateral debt obligations (CDO), which is sliced into tranches with the default exposure level. Investors buy tranches more secure because they believe the triple-A credit ratings assigned by agencies such as Moody's and Standard & Poor's. This is another mistake. Agencies are paid by, and so bound, banks created CDOs. They were too generous in their assessment of them.

Investors looking for securitized products because they appear to be relatively safe while providing higher returns in a low interest rate world. Economists still disagree on whether these low levels are the result of mistakes central bankers' or the wider shift in the world economy. Some accused the Fed keeping short-term interest rates too low, attractive long-term mortgage rates down with them. Defenders of the Fed to shift the blame for the savings glut-the excess of savings over investment in developing countries, especially China. Capital flooded US-government bonds are safe, driving down interest rates.

Low interest rates create incentives for banks, hedge funds and other investors to hunt for riskier assets that offer higher returns. They also made favorable for such clothing to borrow and use the extra money to streng then their investment, assuming that the returns will exceed the cost of the loan. Low volatility of the Great Moderation increases the temptation to "take advantage" in this way. If short-term interest rates were low but

stable, investors will hesitate before utilizing their bets. But if the right is displayed steady, investors will take the risk of lending in the money market to buy longer-dated securities higher-yielding. That is indeed what happened.

For that study is done to see how the actual monetary crisis is the influence and correlation to the financial position of the company in Inonesia, in particular financial ratios which are owned by companies such as the ratio of the lancer, the ratio of the rate of return on capital, the ratio of dividends to be paid, and the price of shares in 14 companies listed on the JSE, in line with the monetary crisis.

II.   THEORETICAL BASIS

The 1997 crisis and the crisis of 2008.

Understanding the crisis is defined as the condition worsens due to an imbalance of national economy monetary and fiscal instruments. The types of crisis can be divided into three, namely Currency Crisis, Banking Crisis and Debt Crisis. Currency Crisis is because the domestic currency weakened very sharply against foreign currency-domestic price is more expensive than abroad so as exports decreased while imports will rise and will experience a net export deficit. Banking Crisis caused banks to Bank Run. This action is part of the distrust of investors to the domestic currency so as to attract deposits in domestic banks. Debt Crisis is crisis because the country can not afford to pay the debt domestically and abroad marked the national income is smaller than the debt budgetting and government expenditure-should the management of debt budgetting less than three percent of the total GDP and government expenditure is not greater than 60 percent of total GDP.

1.Crisi1997

1997/1998 Asian crisis attacking the Thai state which then spread to Malaysia, Korea and Indonesia (contaigon effect) started when the Thai crisis is accompanied by a weakening

currency Bath. Indonesia among the countries affected by the Asian crisis of the countries most severely affected. Broadly speaking, there are four fundamental problems that make the Indonesian economy worse off. Those problems related to (i) the condition of micro banking sector and the business world as well as its impact on macroeconomic conditions, (ii) the level of complexity and scale of the problems faced and their impact on the implementation of economic policies, (iii) social and political conditions and security and its relation to business risks and (iv) global economic conditions. First, the problem of imbalance conditions worsen bank balance and activity of business activities. Not only that, this imbalance conditions also pose no synchronization between the balance of monetary and fiscal sector is destroying the balance of macroeconomic order. These imbalances are caused by the mismatch is between funding sources and allocation of funds imbalance. For example, short-term debt (commercial paper) maturing used to finance long-term debt (maturity paper), while foreign debt is used to finance projects that actually do not generate foreign exchange (currency mismatch), as a result of foreign debt is greater than the reserves owned. The impact of the crisis is the exchange rate dropped sharply, the business sector and banking experience a surge in debt payments in the short term and at that time the debtor in the country does not have much time to do restruksi consequently the world of business bankruptcies and Rupiah The most severe decline.

The second problem concerned with the complexity of the issues in the government. The fundamental microeconomic and institutional weaknesses Indonesia is still dependent on foreign debt relief. The government is not transparent in the management of the country. It implementation weak policies to be taken when there is a crisis, it is difficult to distinguish between monetary and fiscal policy.

The third problem relates to the high risk of doing business in the country. Lack of confidence to invest in the country resulted in the economy is slow. Developments in the

country is still vulnerable to social unrest, political, and security also helped increase the business risk in Indonesia. Consequently weakened investment, production capacity and employment plummeted. It berakibatnya goods produced decreases and the impact on the value of Indonesia's exports are declining.

The fourth issue relates to the unfavorable development that occurred from external parties Indonesia. When the share of Indonesian exports down and in need of financial assistance from a foreign party, even overseas economies are experiencing gloom. The more the drop in the price of commodities in the international market conditions worsen foreign investor to reform and restore the country's economy in crisis such as Indonesia.

2. Crisis 2008

The global financial crisis stemming from the United States in 2007 began to be felt its impact around the world, including developing countries do not except Indonesia in 2008. The impact of the crisis began to be felt in the third quarter of 2008. Indonesia Indonesia's economy begins to compress and this is characterized by slowing economic growth in Indonesia , down at the level of 6 percent. Suprime Mortgage Crisis or better known as the 2008 global crisis is centered in New York, United States.

This crisis occurred because of the greedy in capital markets which led Economic Bubble-rising prices are not comparable with euphoria. Price increases that followed the high inflation which affects mortgage interest rates rise. At that time, the United States experienced an increase in credit for goods property, particularly housing loans. High lending rates led to a default so that the resulting non-performing loans were so bad that cause the Mortgage Loan to Suprime down. Impact does this affect stock prices plummeted further. The worst impact of this phenomenon is the lid Lehman Brothers. Wide spread this issue raises the intensity of the higher volatility in global financial

markets. The instability of international financial markets also led investors led to changes in the dominant trends in the global fortofolio. Investors are encouraged to withdraw its assets from emerging markets, including Indonesia-Indonesian Financial Engineering most feel the impact of the 2008 crisis.

3. Impact of Crisis

The crisis that hit Indonesia in 1997 was not only the Asian financial crisis, but Indonesia was hit by a currency crisis and a banking crisis (twin crisis). The impact of currency crisis that is weakening the Indonesian currency against the currencies of other countries. A decrease in the exchange rate increasingly sharp is also accompanied by the termination of access to capital borrowing from abroad led to commodity production and the less chance of getting work as a result of the depreciated amount of domestic goods more expensive than foreign goods, as a result people tend to rely on imported goods. At the same time, the inflation rate in 1997 reached 45.5 per cent from the previous year. This inflationary pressure as a result of the continuing impact of the weakening of the rupiah, which was followed by the rise in domestic prices, which led to panic-buying public expectations for price increases.

The impact of the banking crisis that hit Indonesia is the crisis affecting the banking performance as a result of banks experiencing an imbalance in the intermediation function. In one hand, the banking community successful in raising funds, but on the other hand lending to the public decreased. As a result, the bank is not sufficiently credible in terms of profitability, this affects the continuity of banking capital. The bank experienced losses resulting bankrutpcy increasingly felt.

Table 1: Macroeconomic Conditions Indonesia, 1997 and 2008

Indicator	1997(%)	2008(%)
Economic growth	4,7	6,1
Inflation	45,5	11,06
Eksternal		
-Transaction work (%PDB)	-2,3	0,1
-Foreight debt (%PDB)	62,2	29,0
Fiscal		
-Fiscal (%PDB)	2,2	0,1
-Public Debt(%PDB)	62,2	32
Banking		
-CAR(%)	9,19	16,2
-NPL(%)	8,15	3,8
Sources : Indonesian Banking 2008, be treated author		

In 1997, gross domestic product is experiencing contraction in the current account negative levels (Table 1) Indonesia worsen conditions in international trade. Indonesia experienced a greater impact than other Asian countries because transactions more products in manufacturing exports, while Indonesia's underdeveloped manufacturing, Indonesia's export commodities in the agricultural sector.

Indonesia's economic growth in 2008 is still above 6 percent. Indonesia bit of getting hit in the fourth quarter due to the drop in export performance due to an increase in the world oil market. On the external side, the balance of payments deficit has increased significantly, due to the risk spreads increased so as to encourage the flow of capital out of the Indonesian stock market.

In relative terms, the position of Indonesia in 2008 was not as bad as in 1997. The impact of the global financial crisis is still holding Indonesia at the economic level of 6.1 percent. Indonesia not severely affected because of the fundamental conditions of the external sector, fiscal and Indonesian banks are strong enough. Another factor supporting economic growth in Indonesia is the growth rate of private consumption come sustains through the level of purchasing power. People's purchasing power increased due to an increase in people's income due to rising commodity export shares Indonesia (chart 3), the increase in the level of labor income upper middle class with government policies salary increase of civil servants in the form of certification, and policy Safety Net Government-direct cash assistance to compensate increase of fuel price. However, the 2008 crisis pose a systemic impact on the banking sector, despite of the CAR and NPL showed a good performance, the impact of the crisis experienced by small banks with a large customer. High levels of CAR that is supported by the non-performing loans is low, encouraging the actors to do the moral hazard in the banking-taking and manipulating banking assets as a result of the banking sector experienced a collapse saturation and identify sectors that encourage policy makers to inject bailout to cover liquidity.

Financial Ratio

Finance or Financial Ratios Ratio is a corporate financial analysis tools to assess the performance of a company is based on comparison of the financial data contained in postal financial statements (balance sheet, profit / loss, cash flow statements). Ratio describes a relationship or balance (mathematical relationship) between a certain number with another number.

Ratio analysis can be used to guide investors and creditors to make decisions or judgments about the achievement of the company and the prospects in the future. One

way of processing and interpreting accounting information, which is expressed in relative or absolute terms to describe certain relationships between numbers one to the other figures of the financial statements.

Financial ratio analysis using financial statement data that has existed as a basic assessment. Although based on data and past conditions, financial ratio analysis is intended to assess the risks and opportunities in the future. Measurement and correlation of the post with another post in the financial statements that appear in the financial ratios can provide meaningful conclusions in determining the financial soundness of a company. But if only consider one tool ratio alone is not enough, so it should be an analysis of rivalries being faced by the management company in the wider industry, and combined with qualitative analysis on business and manufacturing industries, qualitative analysis, and research industries ,

Current Ratio (Current Ratio)

The current ratio is a financial ratio that measures whether or not a company has enough resources to pay its debts over the next 12 months. It compares a company's current assets to its current liabilities. It is expressed as follows:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The current ratio is an indication of the company's market liquidity and ability to meet the demands of creditors. Received current ratio varies from industry to industry and generally between 1.5 and 3 for a healthy business. If the company's current ratio in this range, it generally indicates a short-term financial strength is good. If current liabilities exceed current assets (current ratio below 1), then the company may have problems

fulfilling its short term obligations. If the current ratio is too high, then the company may not be an efficient use of current assets or short-term financing facility. It can also indicate problems in the management of working capital.

Low values for current or quick ratio (value less than 1) indicates that the company may encounter difficulties in meeting current obligations. Low values, however, do not indicate a critical problem. If the organization has a good long-term prospects, it may be able to borrow against the prospect to meet current obligations. Some types of businesses usually operate with a current ratio of less than one.

If all other things are equal, the creditors, who expect to be paid within the next 12 months, will consider the ratio of high current is better than the current ratio is low, because the current ratio which is high means that the company is more likely to meet its obligations maturing in the next 12 months. You have to look at the relationship between the period of the operating cycle and current ratio.

Ratios Return on Equity (Return On Equity)

The amount of net income returned as a percentage of shareholders equity. Return on equity measures the company's profitability by revealing how much profit the company generates with the money shareholders have invested.

ROE is expressed as a percentage and is calculated as:

Return on Equity = Net Income / Equity

Net income is for the full fiscal year (before dividends paid to common shareholders but after dividends for preferred stock.) Shareholders equity excluding preferred shares.

Dividend Ratio to payment by the company (dividend Payout Ratio)

The percentage of earnings paid to shareholders as dividends.

Calculated as:

$$= \frac{\text{Yearly Dividend per Share}}{\text{Earnings per Share}}$$

or equivalently:

$$= \frac{\text{Dividends}}{\text{Net Income}}$$

Keep in mind:

- The decline in dividends paid poorly regarded upon by investors, and the stock price usually depreciate as investors looking for dividend-paying stocks other.
- A stable dividend payout ratio showed solid dividend policy with the board of directors of the company.

Closing Price (Closing Price Shares)

The final price at which a security traded on a particular trading day. The closing price valuation is the most up-to-date security until trading begins again on the next trading day.

Most of the financial instruments traded after hours (although with a substantially smaller volume and liquidity levels), so that the closing price of a security may not be in accordance with the price after-hours. However, the closing price provides a useful marker for investors to assess changes in stock prices over time - the closing price of the day can be compared with the previous closing price in order to gauge market sentiment for a given security during the trading day.

III.   RESEARCH METHODOLOGY

Time Research

This research was conducted in December 2014 to March 2015.

Research Data

Here are the names of 14 companies that the research sample. The 14 companies that constitute or companies in the category that is good enough in performance and well-known name of the company in Indonesia.

Table 2 : Name company

Name Company	CR	ROE	DPR	CP
PT Trias Sentosa Tbk	101.36	5.59	17.3	165
PT Budi Acid Jaya Tbk	104.75	5.33	101.59	130
PT Sorini Agro Asia Corporindo Tbk	167.23	26.21	29.75	900
PT Champion Pcifik Indonesia Tbk	407.27	3.84	71.44	58
PT Selamat Sampurna Tbk	181.79	16.75	31.48	650
PT Sepatu Bata Tbk	220.79	57.69	58.48	20500
PT Sumi Indo Kabel Tbk	410.26	19.26	31.32	500
PT Kalbe Farma Tbk	333.35	19.51	14.37	400
PT Kimia Farma Tbk	211.32	5.84	28.26	76
PT Merck Tbk	777.37	30.13	52.24	35500
PT Taisho Permauthecal Tbk	336.06	43.94	41.28	52000
PT Tempo Scan Pacifik Tbk	383.06	14.34	84.2	400
PT Mandom Indonesia Tbk	809.78	14.07	44.12	5500
PT Mustika Ratu Tbk	631.06	7.34	9.98	153

Sources : Proceed by author

Data Analysis Techniques

Granger causality

In this study, in order to analyze the causality between variables or financial ratio analysis method of testing Granger Causality. One of the advantages Granger causality test is that this test is much more meaningful than the test based on the usual correlation, because of this testing can be found clarity of direction of the relationship of two variables suspected to have mutual relations (Kuncoro, 2001).

Granger causality test goal is to investigate whether X precedes (cause) Y precedes X or Y, or the relationship between X and Y reciprocal (bi directional), or between X and Y there is no relationship at all. While the equations used to perform testing Granger Causality, can be written as follows:

$$X_t = \sum_{i=1}^{m} a_i \, X_{t-1} + \sum_{j=1}^{n} b_j \, Y_{t-1} + \mu_t \ldots\ldots\ldots\ldots\ldots(1)$$

$$Y_t = \sum_{i=1}^{r} c_i \, X_{t-1} + \sum_{j=1}^{s} d_j \, Y_{t-1} + v_t \ldots\ldots\ldots\ldots\ldots(2)\ldots\ldots\ldots\ldots\ldots\ldots$$

Description :

X_t =   CR/ROE/DPR/CP contrary to Yt
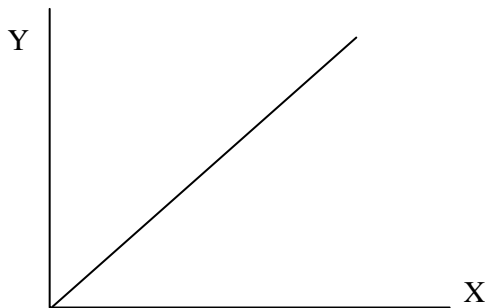
μ, v =   Error term
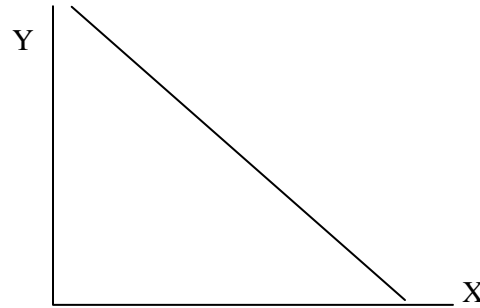
Simple Linear Correlation

Correlation express the degree of relationship between two variables regardless of which variable into a variable. Because it ties correlation can not be said to be a causal relationship.

Relationships form

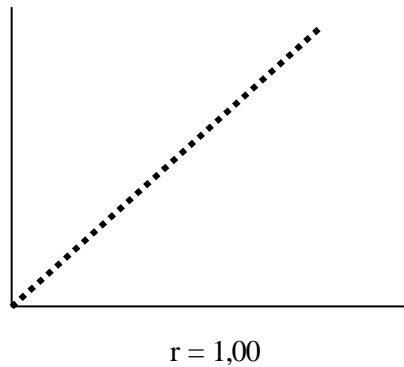**1. Positif correlation**   **2. Negatif correlation**

the strength of the relationship

r = 0,00   r = 0,50

r = 1,00

Description :

1. A positive relationship the relationship the greater the value of the variable X, followed by the greater changes in the value of the variable Y

2. The negative relationship the relationship the greater the value of the variable X, followed by the smaller changes in the value of the variable Y.
3. r = 1.00 stated perfect relationship strong; r = 0.50 states the relationship being; and 0,00 claimed no relationship at all (two variables are not related).

IV.   RESULTS AND DISCUSSION

To answer the question in this study, the authors divide into three discussion, the first discussion of test results on the research data, the stationary data or not. The second discussion, discusses the causality test, which in this discussion the author presents how the results of causality test on / between variables does research. The last discussion regarding the correlation between the research data.

Test Data By Correlogram

If we look at average changes with time, so that a data becomes stationary. If the value is

reduced by a mean value Yt, then the series will be stationary, the process is commonly referred to the trend of stationery process.

Table 3 : Result test correlogram

 Date: 06/15/14 Time: 06:14

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
****| . |	****| . |	1	-0.461	-0.461	3.4495	0.063
. |* . |	. *| . |	2	0.165	-0.059	3.9349	0.140
. |* . |	. |** . |	3	0.129	0.232	4.2592	0.235
. |* . |	. |***. |	4	0.101	0.351	4.4811	0.345
. | . |	. |* . |	5	-0.039	0.167	4.5175	0.478
. | . |	. *| . |	6	-0.006	-0.116	4.5185	0.607
. | . |	. **| . |	7	0.000	-0.277	4.5185	0.718
. | . |	. **| . |	8	0.000	-0.224	4.5185	0.808
. | . |	. | |	9	0.000	0.014	4.5185	0.874
. | . |	. |** . |	10	0.000	0.250	4.5185	0.921
. | . |	. |** . |	11	0.000	0.297	4.5185	0.952

Sources : Proceed by author

Look at the picture above, it turns out none of the data that passes through the boundary interval is in use, it gives the sense that none of the autocorrelation is statistically significant, this is re inforced by the value of probabilistic statistical Q where none autocorrelation of significant, if any we call it lags significantly at 1 with an alpha of 10%. In general, the autocorrelation that all probabilistic value is not significant with regard to the test results ADF test, in other words the data held will be shaped stationary, using 1 st difference, because the value of the ADF was much smaller than the critical value.

Test Data By Granger Cause With Lags 1

Engle and Granger (1987) introduced the concept of cointegration and tied closely to the VAR model. The simplest case is a classical random walk in which the current value of the variable is equal to the previous value plus the error term white noise. Typically, a linear combination of integrated process also integrated. The residuals of the regression of the two variables will be non-stationary. This violates the classic conditions for linear regression. Such regression is known as spurious regression (Granger and Newbold, 1974). However, if a group of integrated variables share a common stochastic trend of non-linear combination will be integrated. This phenomenon - the elimination of a stochastic trend by linear function appropriately - known as cointegration (Engle and Granger, 1987). If two variables share a general trend, there will be a Granger causality in one or more directions among them (Cuthbertson et al., 1992). Cointegration tests alone can not establish the direction of causality, but the tests can be applied to cointegrated VAR as estimated using the Johansen procedure (Johansen and Juselius, 1990).

The advantage of the cointegration analysis is that if each integrated variable omitted from cointegration relationship, which should be included in it, then the remaining variables will fail to cointegrate. So, if we can reject the null of non-causality in the model cointegrated, we can be sure that this is not a false causality due to omitted variables.

Table 4 : Result test Granger Cause

Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Probability
ROE does not Granger Cause CR	13	0.00794	0.93075

CR does not Granger Cause ROE		0.01681	0.89942
DPR does not Granger Cause CR	13	0.09617	0.76285
CR does not Granger Cause DPR		3.67335	0.08428
CP does not Granger Cause CR	13	0.10209	0.75591
CR does not Granger Cause CP		0.74472	0.40837
DPR does not Granger Cause ROE	13	0.16449	0.69360
ROE does not Granger Cause DPR		0.00791	0.93090
CP does not Granger Cause ROE	13	0.39004	0.54626
ROE does not Granger Cause CP		1.07016	0.32528
CP does not Granger Cause DPR	13	0.78923	0.39520
DPR does not Granger Cause CP		0.07404	0.79108

Sources : Proceed by author

where p is a considerable amount of lag model of a dynamic structure so that further inaction coefficients of the variables was not statistically significant and the error term e is white noise. The error term may, however, correlated the whole equation. If the parameter p together significant then zero that x does not Granger cause y can be rejected. Similarly, if the parameter p together significant then zero that y does not Granger cause X can be rejected. This test is usually refereed to as Granger causality test. There are several variant forms including Sims (1972) causality test and Toda and Yamamoto (1995). From the results above shows that, if the data is not happening mutual interplay between variables.

Test Data By Correlation

The issue of measurement, or observation of the relationship between two variables X and Y, the following will be discussed in accordance with the references we get in some literature. This article is certainly not complete as well as the writing of the book Understanding Correlation Statistics written by Ronald E. Walpole, Sugiono, Murray R. Spiegel, or some statisticians who do I admire to-his-experts. But at least can be used as additional reading for students who want to know more about the issue of correlation or other issues related to the relationship between the two variables.

We are not and will not predict the Y value of the knowledge of independent variables X as in linear regression. For example, if the variable X represents the costs incurred to purchase fertilizers and Y is the magnitude of the result of Rice Production in a single growing season, probably will be the question arises in our hearts whether the decrease in costs incurred to purchase fertilizers is also a big chance to be followed by a decrease in results Rice production in one growing season. In other empirical studies, when X is the price of goods offered and Y is the amount of demand for the goods purchased by consumers, so we figured if the values of a large X will certainly paired with the values Y are small.

In this case we certainly have a number that states the proportion of the total diversity of the values of variable Y that can be explained by the values of variables X through the linear relationship. So suppose one has a magnitude correlation of $r = 0.36$ means that 0.36 or 36% of the total diversity of values Y in our example, can be explained by a linear relationship with the values of X.

Table 5 : Result test correlation

	CR	ROE	DPR	CP
CR	1.000000	0.007873	-0.070956	0.256706
ROE	0.007873	1.000000	0.011140	0.724210
DPR	-0.070956	0.011140	1.000000	0.074459
CP	0.256706	0.724210	0.074459	1.000000

Sources : Proceed by author

The correlation value (r) ranges from 1 to -1, the value closer to 1 or -1 means the relationship between two variables is getting stronger, otherwise the value close to 0 means the relationship between two variables is getting weaker. A positive value indicates a relationship in the direction (X rises then Y rises) and a negative value indicates an inverse relationship (X climbed the Y down).

According with Sugiyono (2007) guidelines to provide interpretation of the correlation coefficient as follows:

0.00 to 0.199 = very low

0.20 to 0.399 = low

0.40 to 0.599 = moderate

0.60-.799 = strong

0.80 to 1.000 = very strong

If we see the results of the statistical output, only partially course of variables that have a strong correlation values, some are classified as very low, low and moderate. We can conclude that in the case of data correlation is not strong.

V. CONCLUSION

From the study it can be concluded that in the data or variables used as research, are stationary data among financial ratios, but does not occur autocorrelation in the data. By using the test granger granger cause or causality, variable in the study do not affect between one variable to another variable, so that ascertained at the time of monetary crisis of 2008, among financial ratios no effect on the data research. With the correlation test model also can be concluded that the financial ratio variable data conducted the study, concluded that between variables no one has a very strong correlation.

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