



## Level of Bank Health, Growth Rate, and Banking Value in Indonesia

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### **Abstract**

*This study aims to explore the soundness, growth rate and value of banking in Indonesia. This study also compares the level of soundness, growth rate and value of Islamic banks and conventional banks. This research is interesting and important to do, because as a country with the largest Muslim population in the world, the Islamic banking sector is the main solution to help the economy in an Islamic way. However, the use of Islamic banking services by the public is still not optimal. Meanwhile, Islamic banks are proven to be able to survive the global economic crisis. The motivation underlying this research is that different perspectives in the management of the two types of banks affect the level of bank resilience in facing the crisis. It is proven that when there is a global crisis, Islamic banks are more resistant to testing and survive. This study examines the development of corporate governance in an in-depth Islamic perspective for Islamic commercial banks and compares it with corporate governance in conventional banks. The Islamic context in doing business is very different from the conventional business context. Therefore, it needs to be developed separately based on the concepts of monotheism. The research provides input for the development of models for the application of Islamic Corporate Governance. Another benefit in this study is the level of public acceptance of Islamic banking services, which are carried out. The research output is an empirical model for developing the Islamic Corporate Governance index. The research provides additional input for similar research that are still theoretically reviewing.*

**Keywords: Corporate Governance, Islamic Corporate Governance, Bank soundness level**

## INTRODUCTION

Many studies on the development of the Islamic banking industry have begun. Issues related to the development potential and resilience of Islamic banks in facing the crisis were raised in many studies. This study aims to investigate the performance of Islamic banks, corporate governance, earnings management and how the financial ratios of Islamic banking are studied to see the business impact of this industry. Islamic banking is an interesting issue because it provides a different point of view from similar businesses. The principles and mechanisms of sharia law that underlie this business are very interesting to study. Bank Muamalat as the first Islamic bank was able to survive during the monetary crisis that occurred in 1998 which caused several conventional banks to be liquidated due to the failure of the interest system. In the global financial crisis that hit the world at the end of 2008, Islamic financial institutions again proved their resilience from the crisis. Islamic financial institutions remain stable and provide benefits, comfort and security for their shareholders, securities holders, borrowers, and depositors of funds in Islamic banks. This means that Islamic banking provides a safe investment alternative for stakeholders during volatile economic conditions.

Because Islamic banking has proven to be able to survive in times of crisis, encouraging the development of Islamic banking has been attempted by granting permits to conventional commercial banks to open branch offices of Sharia Business Units (SBU) or converting a conventional bank into a sharia bank. This strategic step is a response and initiative of the amendment to the Banking Law no. 10 of 1998. The Act in lieu of Law no. 7 of 1992 clearly regulates the legal basis and types of businesses that can be operated and implemented by Islamic banks. Law No. 21 of 2008 concerning Islamic Banking, becomes the legal basis and provides impetus for the development and growth of the national Islamic banking industry. Data from Bank Indonesia shows that national Islamic banks have impressive developments, achieving an average asset growth of more than 65% per year in the last five years. These developments provide opportunities for the Islamic banking industry in supporting the national economy to become increasingly significant. The characteristics of the sharia banking system that operates based on the principle of profit sharing provide an alternative banking system that is mutually beneficial for the community and banks, as well as highlighting aspects of fairness in transactions, ethical investment, promoting the values of togetherness and brotherhood in production, and avoiding speculative activities in financial transactions. By providing a variety of banking products and services with more varied financial schemes, Islamic banking is an alternative to a credible banking system that can be enjoyed by all Indonesian people without exception.

This study provides empirical evidence of a comparison of the financial condition of Islamic banking with conventional banking by reviewing corporate governance mechanisms, the quality of information produced, the performance of banks and the health of banks between Islamic and conventional banking. The benefits of this study provide an overview of the direction of the development of the banking industry. The government's encouragement to develop the banking industry that provides comfort, security, and the potential to survive in an ever-changing business environment becomes a healthier and safer investment

alternative. The benefit of this research is to see the potential of banking development, especially Islamic banking. The primacy of the sharia banking service system can provide the benefit of the people and become an alternative financing that is not burdensome to customers. The research is expected to be able to provide an overview and model of banking business development, especially Islamic banking and become input for policy makers to encourage the development of Islamic banking businesses. Sharia business adheres to sharia principles without excluding the implementation of Good Corporate Governance in sharia business itself. Good corporate governance provides direction for more effective management and monitoring of company operations. The concept of good corporate governance is the achievement of more transparent information for all users of financial statements and helps in creating a conducive environment for the creation of efficient and sustainable growth in the banking sector.

The application of Good Business Governance aims to achieve sustainability in running its business. Without the implementation of effective corporate governance, it is difficult for Islamic banks to strengthen their position, expand their network, and demonstrate their performance more effectively. The need for Islamic banks for corporate governance becomes even more serious in line with the increasingly complex problems faced, where these problems can erode the ability of banks to face challenges in the long term. The implication of implementing Islamic corporate governance in running a business is the achievement of corporate sustainability reporting. A further influence is on the company's financial performance which has also improved. Financial performance increases because the company's goal is to try to maintain the welfare of stakeholders, seek benefit and pleasure between the parties' conducting transactions, which affects the soundness of sharia transactions.

The purpose of this study is to investigate the effects of monitoring on corporate governance mechanisms in the banking industry. Furthermore, this study also investigates the comparison of the soundness of banks between Islamic banks and conventional banks. This research is interesting to be carried out because the conventional and Islamic banking industry has a different point of view of business goals. Wahid, (2017) in his research found that Islamic banks in Malaysia are more competitive than conventional banks. This research is also based on the development of Islamic banking in Indonesia which has become a benchmark for the success of the existence of the Islamic economy. This research is important because the corporate governance mechanism in Islamic banking has Islamic values which must also be applied in this sector. Corporate governance with the application of Islamic values has greater responsibility than corporate governance in general corporate practice. The responsibility for managing the company is also based on faith and piety and is responsible to Allah swt. It is this perspective of Islamic corporate governance that makes this study interesting and needs to be done.

## **THEORITICAL FRAMEWORK AND HYPOTHESIS**

### **Legitimacy theory**

Legitimacy theory asserts that companies continue to strive to ensure that they operate within the framework and norms that exist in the society or environment where the

company is located, where they try to ensure that their activities (companies) are accepted by outsiders as "legitimate" (Deegan, 2006). In carrying out corporate governance, Islamic banking must ensure that the business is carried out in accordance with sharia principles as the main guideline. The principles implemented by Islamic banking are not only the principles of corporate governance but must also meet the criteria of the principles of Islamic Corporate Governance.

The purpose of corporate governance is to create added value to stakeholders. Corporate Governance is a concept that is described in the form of provisions/regulations made by authority institutions, norms and ethics developed by industry associations and adopted by industry players, as well as institutions related to clear tasks and roles to encourage discipline, overcoming the impact of moral hazard, and carrying out check and balance functions. The World Bank defines Good Corporate Governance as a collection of laws, regulations, and rules that must be met, which can encourage the performance of company resources to function efficiently to generate sustainable long-term economic value for shareholders and the surrounding community as a whole (Effendi, 2009). Good Corporate Governance, hereinafter referred to as GCG, is a bank governance that applies the principles of transparency, accountability, responsibility, professionalism, and fairness as stated in Bank Indonesia Regulation No. 11/33/PBI/2009 (Indonesia, 2009).

### **Good Corporate Governance in Islamic Perspective**

Islam has a much completer and more comprehensive concept as well as morality and piety to Allah SWT which is a solid wall so as not to fall into illegal and dishonest practices in accepting mandates. Good corporate governance, which in modern terminology is referred to as Good Corporate Governance is related to the hadith of the Prophet SAW narrated by Aisyah r.a which means "Indeed Allah likes it when someone does a job well done".

Sharia entities certainly have their own perspective on Good Corporate Governance which is certainly a reflection of the Islamic perspective. The principle of Good Corporate Governance in Islam refers to the Al-Quran and Al-Hadith which makes it unique and different from the concept of Good Corporate Governance in the western world view. According to Abu-Tapanjeh, (2009), the principles of Corporate Governance in an Islamic perspective are realized through a sharia framework in the implementation of business, justice and equality for the benefit of Allah SWT as the sole owner and authority in the world.

The application of the principles of good corporate governance in an Islamic perspective according to the description of Muqorobin, (2011) on sharia business in Indonesia can be detailed as follows.

#### **1. Tawhid**

If someone wants to do business, he must first know well the religious laws that regulate trade so that he does not carry out activities that are unlawful and detrimental to society. In muamalah, what must be considered is how to create an atmosphere and conditions for muamalah that are guided by divine values. Tawhid in its application to sharia business is reflected in the application of sharia principles in the activities of raising funds, distributing funds, and providing services to sharia banks.

#### **2. Taqwa and pleasure**

The principle of ridha is reflected in the implementation of the contract when conducting transactions at Islamic banks. Both modaraba, Murabaha, and ijarah contracts and so on will begin with the signing of a contract that shows the principle of mutual pleasure and without coercion from any party.

3. Equilibrium (balance and fairness)

The principle of equilibrium refers to the distribution of funds to core financing customers and depositing of funds by core depositors with a special ratio depending on the nominal number of deposits at Islamic banks. This principle is also reflected in the guarantee that there will be no concurrent positions as members of the Sharia Supervisory Board at other Islamic financial institutions.

4. Benefit

The principle of benefit is implemented in the form of distributing zakat funds and benevolence funds at a reasonable and adequate budget to support the implementation of corporate social responsibility activities.

### **Bank Health**

Bank health is the ability of a bank to carry out normal banking operations and be able to fulfil all its obligations properly in ways that are in accordance with applicable banking regulations. For banks, the results of the banking soundness assessment can be used as a means of determining future business strategies, while for Bank Indonesia the results of the banking soundness assessment can be used as a means of determining and implementing bank supervision strategies by Bank Indonesia. The assessment factor for bank soundness is RGEC. In PBI No. 13/1/PBI/2011 and SE No. 13/ 24/ DPNP dated October 25, 2011, the indicators are:

1) Risk profile

The risk assessment is divided into 8 parts, namely:

a) Credit risk

The risk of the loan not being returned in accordance with the contract, such as delays, reducing interest and principal payments, or not paying the loan at all. The credit ratio is calculated using the Non-Performing Loan ratio.

b) Market risk

A risk arising from the decline in the value of an investment due to movements in market factors. The market ratio is calculated using the Interest Rate Risk ratio.

c) Liquidity risk

The risk of lack of liquidity occurs due to a rush – simultaneous withdrawal of funds which can result in bank bankruptcy. The liquidity ratio is calculated using the following ratios:

(1) Loan to Deposit Ratio (LDR)

(2) Loan to Asset Ratio (LAR)

(3) Cash Ratio

d) Operational risk

Risk of loss resulting from failure or inadequate internal processes, people and systems, or as a result of external events.

e) Legal risk

Risk from uncertainty of action or claim or uncertainty of performance or interpretation of contracts, laws, or regulations.

f) Strategic risk

Risks caused by the establishment and implementation of inappropriate bank strategies, inappropriate business decision making or the bank's lack of responsiveness to external changes.

g) Compliance risk

The risk caused by the non-compliance of a bank to implement the laws and other applicable provisions.

h) Reputational risk

The risk due to the declining level of stakeholder confidence stems from negative perceptions of the bank.

Each section is further divided into 2 parts, namely the level of inherent risk and the quality of risk management implementation. So, there are 16 assessments for risk assessment. Reviewing the risk level is divided into 5 levels. The smaller the points received, the better the bank's health in terms of risk.

## 2) Good Corporate Governance

Good Corporate Governance (GCG) is viewed from the point of view of the fulfilment of GCG principles. GCG reflects the management part of CAMELS but has been refined. The Bank considers the impact of the company's GCG on the bank's GCG performance by considering the significance and materiality of the subsidiary company and or the significance of the weakness of the subsidiary's GCG.

## 3) Earnings

Earning is one of the assessments of the bank's health in terms of profitability. Profitability assessment indicators are ROA (Return on Assets), ROE (Return on Equity), NIM (Net Interest Margin), and BOPO (Operating Expenses to Operating Income). The component of actual profit on the projected budget and the ability of the component of profit to increase capital. The characteristics of the bank in terms of profitability are the bank's performance in generating profits, the stability of the components that support core earnings, and the ability of earnings to increase capital and prospects for future profits.

## 4) Capital

Capital or capital has indicators including the capital adequacy ratio and bank capital adequacy to anticipate potential losses according to the risk profile, accompanied by very strong capital management in accordance with the characteristics, business scale and complexity of the bank's business.

## Hypothesis Development

Baird, (2000) states that one of the root causes of the economic crisis in Indonesia and in various other Asian countries is the poor implementation of GCG in almost all existing companies, both state-owned companies (BUMN) and those owned by private parties. With

the poor implementation of GCG, the level of confidence of the owners of capital will decrease because the investments they make are not safe. This of course will be followed by withdrawal of the investment that has been invested, while new investors are also reluctant to invest.

According to Newell & Wilson, (2002) theoretically, GCG practices can increase firm value, improve financial performance, reduce the risk that the board may take with self-beneficial decisions, and in general increase investor confidence. On the other hand, poor GCG practices can reduce the level of investor confidence. This is reinforced by the results of a survey conducted by Coombes & Watson, (2002) which shows that GCG is the main concern of investors, equating financial performance and growth potential, especially for emerging markets. In this case, they tend to avoid companies that are bad in implementing GCG. GCG is seen as a determining qualitative criterion. From the description above, the following hypothesis can be drawn:

*H<sup>1</sup>: There is an effect of bank soundness level with firm value*

*H<sup>2</sup>: There is an influence between the growth rate and firm value*

This study also aims to see the differences between Islamic banking and conventional banking. Islamic banking is unique in the norms of carrying out its operational activities. Islamic banking must apply Islamic principles and apply GCG. The Forum for Corporate Governance (FCGI) in its first publication used the Cadbury Committee definition, namely: a collection of regulations governing the relationship between shareholders, company managers, creditors, government, employees, and all stakeholders related to their rights and obligations, or in other words the system that controls and manage the company. According to Bank Indonesia, the implementation of Good Corporate Governance in the Islamic Banking Industry must be in accordance with sharia compliance and that implementation is one of the efforts to protect the interests of stakeholders and to improve discipline towards laws and regulations and sharia banking habits and ethics. The hypotheses proposed in this study are:

*H<sup>3</sup>: There are differences in the monitoring function between Islamic banks and conventional banks based on corporate governance mechanisms*

*H<sup>4</sup>: There is a difference in profitability between Islamic banks and conventional banks before and after the crisis*

*H<sup>5</sup>: There are differences in the level of bank soundness between conventional banks and Islamic commercial banks before and after the crisis*

## RESEARCH METHOD

### Research Object

The object of research is the banking industry in Indonesia. Samples were taken by banks registered with Bank Indonesia and the Financial Services Authority. Islamic banks consist of Islamic Commercial Banks registered with Bank Indonesia as many as 12 banks. Conventional bank is a commercial bank registered with Bank Indonesia. The year of observation in this study was 2016-2020. The reason for taking the sample is because this study compares banks in facing crisis conditions.

## Research variable

### a. Bank Health

The data analysis technique used is a financial statement analysis technique using the approach of Bank Indonesia Regulation Number 13/1/PBI/2011 concerning Commercial Bank Soundness Level Assessment, Bank Indonesia has established a risk-based Bank Soundness Level assessment system to replace the CAMELS assessment. The assessment of the RGEK factors consists of:

#### 1. Risk Profile (Risk Profile)

The risk assessment is divided into 8 parts, namely credit risk, market risk, liquidity risk, operational risk, legal risk, strategic risk, compliance risk and reputation risk. In this study, the risk profile was measured using 2 indicators, namely credit risk using the NPL formula and liquidity risk using the LDR, LAR, and Cash Ratio formulas.

##### a. Credit Risk

By calculating the ratio of Non-Performing Loans:

$$NPL = \frac{\text{Non – performing Loans}}{\text{Total Credits}} \times 100\%$$

##### b. Liquidity Risk

By calculating the ratios as follows:

###### 1) Loan to Deposit Ratio (LDR)

$$LDR = \frac{\text{Total Credit}}{\text{Third Party Funds}} \times 100\%$$

###### 2) Loan to Asset Ratio (LAR)

$$LAR = \frac{\text{Total Credit}}{\text{Total Asset}} \times 100\%$$

###### 3) Cash Ratio

$$\text{Cash Ratio} = \frac{\text{liquid instruments controlled}}{\text{Third Party Funds}} \times 100\%$$

#### 2. Good Corporate Governance

Good Corporate Governance (GCG) is viewed from the point of view of the fulfilments of GCG principles. GCG reflects the management part of CAMELS but has been refined. This study compares Islamic banks and conventional banks. Therefore, there are differences in the corporate governance index. Conventional commercial banks use the GCG index while Islamic Commercial Banks use the Islamic Corporate Governance index. Assessment of corporate governance in banking refers to the codification of Bank Indonesia regulations that stipulate self-assessment of Good Corporate Governance in Banking. In Bank Indonesia regulations, there are differences between corporate governance in conventional banks and Islamic banks. This study also uses references from AAOIFI to determine the assessment of Islamic Corporate Governance.

The standard for implementing Islamic Corporate Governance refers to the standards set by AAOIFI which is one of the Islamic corporate governance systems for Islamic financial institutions. There are seven standards as follows:

1. Sharia Supervisory Board: Appointment, Composition and Report,
2. Sharia Review,



3. Internal Sharia Review,
4. Sharia Financial Institutions Audit & Governance Committee,
5. Independence of the Sharia Supervisory Board,
6. Statement on the Governance Principles of Islamic Financial Institutions,
7. Corporate Social Responsibility and Disclosure of Islamic Financial Institutions.

The implementation of sharia corporate governance will be successful if it can fulfill several principles that have been regulated by PBI Number 11/33 / PBI / 2009 which contains the principles of good corporate governance management for sharia banks and sharia businesses as follows:

1. Transparency: Transparency in providing materialism, openness, and relevant information in the decision-making process.
2. Accountability: It is about clarity of company functions, structures, systems, and responsibilities that management can perform effectively.
3. Responsibilities: It is about compliance with regulations in bank management of applicable corporate principles and laws.
4. Independence; Professional bank management without pressure from any party.
5. Justice: Justice in fulfilling the rights of stakeholders based on the Akad and applicable law. This principle emphasizes that all parties, whether minority or foreign shareholders, need to be treated equally.

### 3. Earnings (Profitability)

The assessment of the earnings factor is based on two ratios, namely:

#### a. Return on Assets (ROA)

$$ROA = \frac{\text{Profit Before Tax}}{\text{Average total assets}} \times 100\%$$

#### b. Net Interest Margin (NIM)

$$NIM = \frac{\text{Net Interest Income}}{\text{Average Earning Assets}} \times 100\%$$

### 4. Capital

Capital or capital is a bank valuation method based on the capital owned by the bank using the Capital Adequacy Ratio (CAR) ratio.

$$CAR = \frac{\text{Bank Capital}}{ATMR} \times 100\%$$

### 5. Bank Growth Rate

Prediction of bank growth rate is calculated using:

$$\text{Growth years } T = \frac{(\text{Growth years } T) - (\text{Growth years } T - 1)}{\text{Growth years } T - 1} \times 100\%$$

## Test of Statistic

The test is carried out by exploring the soundness of Islamic commercial banks and conventional commercial banks. The difference in measurement is in the corporate governance variable. Corporate governance in Islamic Commercial Banks is studied more deeply in accordance with sharia principles. The statistical test tool used in this study is SPSS

23. The test was conducted to see the effect of the variables studied and the difference between Islamic banks and conventional banks. The stages of testing are carried out through the stages:

1. Testing the soundness of banks using RGEC analysis.
2. Testing the bank's growth rate through several indicators, namely total assets, profitability, Third Party Funds (DPK), and credit.
3. Testing the effect of bank soundness level and bank growth rate on firm value. The test was carried out using regression analysis with the equation model:

$$NIL = +\beta_1RISK+\beta_2CG+\beta_3EARN+\beta_4CAP+\beta_5ASET+\beta_6DPK+\beta_7KRD+e$$

4. Testing the different levels of bank soundness, growth rate and firm value between conventional banks and Islamic banks.
5. Qualitative analysis of the differences between Islamic banks and conventional banks using SWOT analysis and statistical ANOVA testing.

## RESULT AND DISCUSSION

### Sample Selection

This study uses secondary data in the form of financial statements of banking companies listed on the IDX in January 2016–December 2020. The data is taken from the Indonesia Stock Exchange (IDX) and the Financial Services Authority. The sampling technique used was purposive sampling. Of the 30 banking companies listed on the IDX based on these criteria, 12 banking companies were obtained that met the requirements to be used as research samples. The variables used in this study are the dependent variable and the independent variable. The dependent variable used is profit growth and the independent variable consists of CAR, BOPO, LDR and IRR. Furthermore, based on these financial reports, the value of the CAR, BOPO, LDR and IRR ratios as well as the Profit Growth of each bank for each year during the study period January 2016-December 2020. In the following, a description of the data from each of the variables used in this study will be presented.

Table 4.1  
Description of Research Data

	PROFIT	CAR	BOPO	LDR	IRR
Mean	40.12136	16.10564	79.25829	75.82721	230.2332
Median	19.96090	15.75500	81.51000	78.95000	204.5145
Maximum	588.1518	37.49000	98.24000	101.4900	811.1840
Minimum	-84.32310	10.27000	56.04000	40.22000	104.2590
Sum	11233.98	4509.580	22192.32	21231.62	64465.28
Sum Sq. Dev.	2122254.	3435.955	28148.78	43079.93	2135170.
Observations	280	280	280	280	280

Table 4.1 above shows that the amount of data used in this study was 14 data samples taken from the Quarterly Published Financial Reports of Bank Indonesia Banking listed on the IDX for the period January 2010 to December 2014. The lowest CAR ratio (minimum) was 10.2700 and the highest (maximum) is 37.4900 then the average is 16.10564. BOPO ratio

obtained an average of 79.25289 with the lowest data of 56.04000 and the highest 98.24000. The LDR ratio obtained an average of 75.82721 with the lowest data being 40.22000 and the highest being 101.4900. The average IRR ratio is 230.2332 with the lowest data being 104.2590 and the highest being 811.1840.

## Data Estimation Results

### Effect of Bank Financial Soundness on Profit Growth

Table 4.2  
Best Estimation Method Selection Test

Uji	Ho	Hasil	Indikator Uji	Keterangan		
<i>F-restricted test</i>	<i>Pooled Least Square</i>	Tolak Ho	Prob > F = 0.000	Metode	terpilih	<i>fixed</i>
<i>Hausman test</i>	<i>Random Effect Pooled</i>	Terima Ha	Prob < F = 0,005	Metode	Terpilih	<i>fixed</i>
<i>LM test</i>	<i>Least Square</i>	-	-	-	-	-

Before estimating the model, it is necessary to select the best model that will be used to estimate the panel data. The selection of the model went through several tests. The test in question is the F-restricted test which is used to select Pooled Least Square or fixed effect. Hausman test is used to choose fixed effect or random effect while LM test is used to choose between Pooled Least Square or random effect. Table 4.2 is the result of the selection of estimates that have been made.

Based on the selection of the best method in table 4.2, the best method chosen is the fixed effect. The fixed effect method will be used to estimate the equation. Table 4.3 presents the estimation results using the fixed effect method.

Table 4.3

Fix-Effect Model Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAR	-0.595856	1.881.544	-0.316685	0.7517
BOPO	-3.843292	0.972189	-3.953233	0.0001
LDR	-1.914283	0.652428	-2.934091	0.0036
IRR	-0.160662	0.099997	-1.606661	0.1093
C	536.4751	1.053577	5.091942	0.0000

To get a good regression model and really have accuracy in the estimation, it is necessary to test the classical assumptions. Based on the model selection test in table 4.2 that the best model chosen is the Fixed Effect model. To get a good regression model and really have accuracy in estimation, a classical assumption test is needed. For this reason, the

classical assumption test that will be used in this study is the normality test, heteroscedasticity test, multicollinearity test and autocorrelation test.

Table 4.4  
Classic Assumption Test Results

Test Assumptions	Test	Results	Description
Normality	J-B dan Prob	J-B 1521.969 Prob 0,065472	data is normally distributed
Multicollinearity	Coefficient correlation	Coefficient value <0,85	There is no multicollinearity
Autocorrelation	D-W	D-W 0,77943	Model contains autocorrelation
heteroscedasticity	Residual graph	Residuals form a pattern	The model has heteroscedasticity

Based on table 4.5, the model is free from violations of the normality and multicollinearity assumptions but still has autocorrelation and heteroscedasticity problems. To overcome this problem, the Cross-Setion SUR method is used. The following is the estimation result with Cross-Setion SUR:

Table 4.5.  
Model Estimation Results Using  
SUR cross-section

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAR	-0.647717	0.197595	-3.278003	0.0012
BOPO	-3.579196	0.147271	-24.30343	0.0000
LDR	-1.763989	0.060975	-28.92981	0.0000
IRR	-0.16665	0.009596	-17.36638	0.0000
C	506.3610	1.567954	32.29438	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-squared	0.848241	Mean dependent var	1.316246	
Adjusted R-squared	0.838394	S.D. dependent var	4.680512	
S.E. of regression	1.016937	Sum squared resid	270.9500	
F-statistic	86.14220	Durbin-Watson stat	1.727203	
Prob (F-statistic)	0.00000			

## Hypothesis Testing

### T-Statistical Test (Partial Test)

Based on the following results, estimates can be explained regarding hypothesis testing of each independent variable, namely as follows:

### 1. Capital Adequacy Ratio

The proposed CAR hypothesis is as follows:

Ho: Capital Adequacy Ratio (CAR) has no effect on profit growth.

Ha: Capital Adequacy Ratio (CAR) influences profit growth.

Based on the table, the estimation results of the CAR variable have a t-count value of -3.278003 and a significance of 0.0012. The significance value of CAR  $0.0012 < 0.05$  indicates that the CAR variable has a significant effect on profit growth ( $\alpha = 0.05$ ). Based on the proposed hypothesis, Ha, which means that statistically CAR influences profit growth ( $\alpha = 0.05$ ).

### 2. Operating Costs Operating Income (BOPO) The proposed BOPO hypothesis is as follows:

Ho: Operating Cost of Operating Income (BOPO) has no effect on profit growth.

Ha: Operational Cost of Operating Income (BOPO) influences profit growth.

Based on the table, the estimation results of Operational Income Operating Costs (BOPO) variables have a t-count value of -24.30343 and a significance value of 0.0000. BOPO significance value of 0.0000 using  $= 0.05$  indicates that the BOPO variable has a significant effect on profit growth ( $0.0000 < 0.05$ ). Based on the proposed hypothesis, Ha, which means that statistically BOPO influences profit growth ( $\alpha = 0.05$ ).

### 3. Loan to Deposit Ratio (LDR)

The proposed LDR hypothesis is as follows:

Ho: Loan to Deposit Ratio (LDR) has no effect on profit growth.

Ha: Loan to Deposit Ratio (LDR) influences profit growth.

Based on the table, the estimation results of the LDR variable have a t-count value of -28.92981 and a significance value of 0.0000. The LDR significance value of 0.0000 using  $= 0.05$  indicates that the LDR variable has a significant effect on profit growth ( $0.0000 < 0.05$ ).

### 4. Interest Rik Ratio (IRR)

The proposed IRR hypothesis is as follows:

Ho: IRR has no effect on bank profit growth

Ha: IRR influences bank profit growth

IRR Based on the table, the estimation results of the IRR variable have a t-count value of -17,36638 and a significance of 0.0000. The IRR significance value of 0.0000 using  $= 0.05$  indicates that the IRR variable has a significant effect on profit growth ( $0.0000 < 0.05$ ).

## F Statistic Test (Simultaneous Test)

The F statistical test basically shows whether all the independent variables included in the model have a joint effect on the dependent variable. The proposed CAR, BOPO, LDR, and IRR hypotheses are as follows:

Ho: CAR, BOPO, LDR, and IRR simultaneously do not affect profit growth

Ha: CAR, BOPO, LDR, and IRR simultaneously affect profit growth

Based on the estimation results in table 11, the calculated F value is 86,14220. The significance value of  $0.00000 < 0.05$  indicates that simultaneously the independent variables have a significant effect on bank profit growth ( $\alpha = 0.05$ ). Based on the proposed hypothesis

rejects  $H_0$  (accepts  $H_a$ ) which means statistically that all independent variables together (simultaneously) have a significant effect on bank profit growth ( $\alpha = 0.05$ ).

### **Coefficient of Determination ( $R^2$ )**

The coefficient of determination ( $R^2$ ) essentially measures how far the model's ability to explain variations in the dependent variable is. A value ( $R^2$ ) that is close to one means that the independent variables provide almost all the information needed to predict the variation of the dependent variable. The value of the coefficient of determination ( $R^2$ ) as can be seen in table 11 is 0.848241 or 84.82%. This value shows that the ability of the CAR, BOPO, LDR, and IRR variables to be able to explain the variation of the profit growth variable is 84.82% while the remaining 15.18% is explained by variables other than the variables used in this study.

### **Discussion**

After testing the hypothesis and estimation on the financial ratio model of banking companies, it will be studied further on the effect of financial ratios on bank profit growth. Below are the test results of each ratio of financial performance to the bank's profit growth.

#### **Effect of CAR on Bank Profit Growth**

In relation to the effect of the CAR ratio on the bank's profit growth partially. It has a t-count value of -3.278003 and a significance of 0.0012. The significance value of CAR 0.0012 < 0.05 indicates that the CAR variable influences profit growth ( $\alpha = 0.05$ ). The CAR variable has an effect and is significant on the profit growth of banks on the IDX in the 2016–2020 period. Then the CAR ratio has a significant effect on profit growth is proven. Capital Adequacy Ratio (CAR) is a ratio that shows how far all bank assets that contain risk (credit, equity participation, securities, claims on other banks) are also financed from the bank's capital in addition to obtaining funds from sources outside the bank. such as public funds, loans (receivables) and others (Lukman, 2003). CAR will be low. This is what makes Bank Indonesia through the Indonesian Banking Architecture (API) increase the standard CAR from 5% to 8%. Because this policy has a dual function, apart from improving the bank's ability to generate income, it also improves the soundness of the bank in the eyes of the public. This is in accordance with the results of the study where CAR has a significant effect on changes in profits in banking companies in Indonesia. These findings support the results of research conducted by Suteja & Sidiq, (2010) that the Capital Adequacy Ratio (CAR) affects bank profit growth.

#### **Effect of BOPO on Bank Profit Growth**

Based on table 4.5, the estimation results of the BOPO variable have a t-count value of -24.30343 and a significance value of 0.0000. BOPO significance value of 0.0000 using = 0.05 indicates that the BOPO variable has a significant effect on profit growth (0.0000 < 0.05). Based on the proposed hypothesis,  $H_a$ , which means that statistically the BOPO influences profit growth ( $\alpha = 0.05$ ). The ratio of operational costs to bank operating income aims to determine the extent to which the company's operating costs can be met by bank income. Operational costs can be reduced as efficiently as possible with the same income increasing

bank income. In this study, the BOPO ratio proved to be significant and influential on profit growth. When operational costs or BOPO can be reduced as efficiently as possible, with the same income, profits can be increased so that it will increase bank profits. Thus, the bank's profits will increase. These findings contradict the results of research conducted by Dewanti, (2009) that BOPO has no effect on bank profit growth. This means that the level of efficiency of the bank in carrying out its operations influences the level of income or "earnings" generated by the bank. If operational activities are carried out efficiently, the profit generated by the bank will increase.

### **Effect of LDR on Bank Profit Growth**

Based on table 4.5, the estimation results of the LDR variable have a t-count value of -28.92981 and a significance value of 0.0000. The LDR significance value of 0.0000 using = 0.05 indicates that the LDR variable has a significant effect on the growth of bank profits on the IDX for the 2012-2017 period. These findings support the results of research by Zainuddin, (1999) which states that LDR influences earnings changes. The explanation that can be used to support this research is because during the research period (January 2016 to December 2020) the banking business condition was very good, although some banks were not normal by some banks. In this case, it can also be said that the banking intermediation function listed on the IDX is still lacking. The reason is that the distribution of credit to creditors is still small, which is caused by concerns from the bank if the credit given becomes problematic. This is evidenced by the LDR level of several banks (Bank Ekonomi Raharja, Bank Bukopin, Bank Nusantara Parahyangan, Bank Victoria Internasional, Bank Mayapada) which is still relatively low at below 80% (see raw data in the attachment). Overall, from the sample used, the collected funds can be distributed to the community.

### **Effect of IRR on Bank Profit Growth**

Based on table 4.5, the IRR variable has a t value of -17,36638 and a significance of 0.0000. The IRR significance value of 0.0000 using = 0.05 indicates that the IRR variable has a significant effect on the growth of bank profits on the IDX for the 2016-2020 period. The IRR ratio shows the comparison between the interest rate difference between interest income and interest expense. Ideally, every bank should have reserves to cover interest rate fluctuations compared to potential losses because of interest rate fluctuations. This is because not all banks have the same conditions. This result contradicts the research of Fathoni et al., (2012) that IRR has no effect on bank financial performance. This means that the size of the IRR value affects the company's profit growth. The test results on the IRR variable affect profit growth. Even though in the banking world in Indonesia, where business competition is getting tougher, the offers of credit to the public between one bank and another tend to have almost the same interest expense, which is adjusted to the bank interest rate issued by Bank Indonesia. This causes companies to be unable to take policies to increase loan interest rates above the average, because customers will tend to switch to banks that offer loans with lower interest rates. Thus, the profit growth that occurs in banking companies

is more due to the condition of the bank itself and other factors, not due to the size of the loan interest rate that affects credit income.

### **Effect of CAR, BOPO, LDR, and IRR on Bank Profit Growth**

The effect of financial ratios on profit growth. Based on the estimation results in table 11, the calculated F value is 86,14220. The significance value of  $0.0000 < 0.05$  indicates that simultaneously the independent variables have a positive and significant effect on bank profit growth ( $\alpha = 0.05$ ). The soundness of a bank is an assessment of various aspects that affect the condition of the bank. The influencing factors include capital, assets, management, earnings, liquidity, sensitivity to market risk. a healthy bank a bank that has good liquidity, profitability, and solvency. The level of liquidity, profitability, and solvency are represented by the CAR, BOPO, LDR and IRR factors, because these four variables have a significant influence on the growth of earnings listed on the IDX in 2012-2017. The value of the coefficient of determination ( $R^2$ ) in table 10 is 0.848241 or 84.82%. This value shows that the ability of the CAR, BOPO, LDR, and IRR variables to be able to explain the variation of the profit growth variable is 84.82% while the remaining 15.18% is explained by variables other than the variables used in this study.

### **CONCLUSION**

Research conducted on 14 banking companies in Indonesia during the period January 2010-December 2014 discusses the effect of financial ratios on profit growth. Based on the results of the discussion in the previous chapter, this study produces several conclusions. The Capital Adequacy Ratio variable has a t value of -3.278003 and a significance of 0.0012. A significance value of 0.0012 indicates that the CAR variable has a significant effect on bank profit growth on the IDX for the period 2012-2017. The BOPO variable has a t-count value of -24,30343 and a significance value of 0.0000. A significance value of 0.0000 indicates that the BOPO variable has a significant effect on bank profit growth on the IDX for the period 2012-2017. The LDR variable has a t-count value of -28.92981 and a significance value of 0.0000. A significance value of 0.0000 indicates that the LDR variable has a significant effect on bank profit growth on the IDX for the 2012-2017 period. The IRR variable has a t-count value of -17,36638 and a significance of 0.0000. A significance value of 0.0000 indicates that the IRR variable has a significant effect on bank profit growth on the IDX for the 2012-2017 period. Together, the CAR, BOPO, LDR, and IRR variables have a calculated F value of 86,14220 and a significant value of 0.0000. The significance value of  $0.0000 < 0.05$  indicates that simultaneously the independent variables have a significant effect on the growth of bank profits on the IDX for the period 2012-2017.

This research was carried out as well as possible but given the limited resources owned by the researcher, this research has several weaknesses that can be considered by other parties including. The research is limited to banks that have gone public so that they are less representative of all issuers listed on the IDX. In addition, sampling using purposive sampling technique causes the results of this study cannot be generalized. The research period used is still short, namely 5 years, thus allowing the results of the research to be less representative.



Based on the conclusions and limitations of this study, some suggestions can be made as follows for the bank under study, with the results of CAR proven to influence profit growth. Therefore, the bank can pay attention to the ideal CAR value for the bank. In this study, the BOPO ratio proved to influence profit growth. Therefore, banks that have been efficient in carrying out their operations must be maintained so that the profits obtained will increase. The level of LDR that affects the growth of bank profits. Therefore, the bank has carried out its function to channel the collected funds to people who need it properly. Banks need to pay attention to the ideal LDR value that is in the bank in their operations. From the results of the IRR ratio, it affects the growth of bank profits. IRR ratio is the ratio between the interest rate difference between interest income and interest expense. Thus, the bank can improve the quality of the bank itself or other factors. So that with good service, the bank will be famous in the community, it will increase the number of customers. For Further Researchers, from this research, it is known that 15.18% is the influence of other variables outside the variables studied. Further research is suggested to be able to expand by adding other variables that have not been studied.

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