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The Impact of Global Economic Slowdown and Financial Performance of Banks on Stock Returns in Indonesia Stock Exchange

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Abstract: ***This paper aims to analyze the impact of global economic slowdown particularly the GDP growth of the United States and China as the world's largest economy, GDP growth of Indonesia and the financial performance of banks to stock returns on the Indonesia Stock Exchange during the period of 2007-2016 through panel data analysis. The analysed banks are those with the largest market capitalization in Indonesia Stock Exchange such as Bank Central Asia (BCA), Bank Rakyat Indonesia (BRI) and Bank Mandiri. The research utilizes Net Interest Margin (NIM), Non-Performing Loan (NPL), Loan to Deposit Ratio (LDR) and Capital Adequacy Ratio (CAR), as the basis of bank financial performance. The results showed impact of global economic slowdown particularly the China GDP growth has a significant and positive impact to stock returns. Indonesia GDP growth and CAR have a significant and negative impact on stock return in Indonesia Stock Exchange.***

Keywords: global economic slowdown, stock returns, financial performance, panel data analysis

1. Introduction

Since the financial crisis in the United States caused by the subprime mortgage crisis, investors began to pay attention to global economic conditions in making decisions in investing. According to Lee (2012), the subprime mortgage crisis that occurred in July 2007 in the United States caused great fear in global financial markets, international stock markets and foreign markets. Since early 2010, the Eurozone faces a serious debt crisis which has put Greece on massive economic crisis (Nelson et al. 2011). China's economy has also been slowing since 2010. This worsens the condition of the global economy. Global GDP growth shows a downward trend since 2010. (ECB, 2016)

The research use United States and China as indicator due to their largest contribution to the world GDP.The World Bank's GDP data of 2015 shows the US economy with GDP of US $ 18 trillion contributing 24.32% to the world economy. The second rank with the world's largest economy is China with GDP of US $ 11 Trillion contributed 13.84% to the world economy. (www.weforum.org). The contribution of these two countries is almost 40% of the world economy, which means the economic conditions of these two countries greatly affect the global economy. Research conducted by Cashin et al. (2016) show that, one percent permanent negative GDP shock in China (equivalent to a one-off one percent growth shock) could have significant global macroeconomic repercussions, with world growth reducing by 0.23 percentage points in the short-run and a surge in global financial market volatility could translate into a fall in world economic growth of around 0.29 percentage points, but it could also have negative.

Banking sector development has positive impact on economic growth and vice versa. (Elif et al. 2011). Finance development is a key to economic growth(Pradhan et al.2013).In Indonesia economic growth leads to banking sector development (Pradhan et al. 2014). Masoud NMH(2013) in his research concluded a positive relationship between efficient stock markets and economic growth.Sangkyun (1997), Hooker (2004), Chiarella and Gao (2004) in Kewal SS (2012) found that GDP influenced significantly to stock returns.Khan (2014),GDP (Gross Domestic Product) growth rate were positively related with stock prices (KSE-100 index).Najaf (2015),GDP has strong relationship with KSE stock index.Economic growth has significant positive relationship with the stock market capitalization. (Raza and Jawaid 2012).

Data from Indonesia Stock Exchange per June 2015 there are three banks with the largest market capitalization of more than 200 trillion rupiahare Bank BCA, BRI danMandiri. (www.idx.co.id).

Objective of the study

Based on this background, the purpose of this research is to analyze the impact of global economic slowdown particularly the United States GDP growth and China GDP growth as the world's largest economy, Indonesia GDP growth and the financial banking performance is NIM, NPL, LDR and CAR of banks(BCA, BRI and Mandiri) to stock returns of banks (BCA, BRI and Mandiri) on the Indonesia Stock Exchange during the period of 2007-2016.

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2. Methodology

Data

The data used in this study are secondary data, in theformofquarterly reports of United States GDP growth, China GDP growth, Indonesia GDP growth, and financial banking performance is NIM, NPL, LDR and CAR. The data were obtained from www.tradingeconomic.com (U.S. Bureau of economic analysis, National Bureau of Statistics of China), www.gdpinflation.com and financial reports, internet during period of 2007 Q1 – 2016 Q4.

Data Processing and Analysis Techniques

This study uses software tools Eviews 9for multiple panel data regression analysis. This research aims to analyzedhow the influence of independent variables which are: Indonesia GDP growth (X1), United States GDP growth (X2), China GDP growth (X3), NIM (X4), NPL (X5), LDR (X6) and CAR (X7) will affect stock returns as a dependent variable. With the model as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + e_{it}$$

Information:

Y_{it} = stock returns$_\alpha$ = intercept

β_j = regression coefficient of variable Xj(j=1,2,3,4,5,6,7)

X_1: variableIndonesia GDP growth

X_2: variable United States GDP growth

X_3: variableChina GDP growth

X_4: variable NIM

X_5: variable NPL

X_6: variable LDR

X_7: variable CAR

it: cross-sectionofi (1,2,3 namely BCA, BRI and Mandiri banks), time series oft (1,2,3…40 i.e 2007Q1-2016Q4)

e : Standard error

Selection of the Best Model

There are threetesting tool to select the best data panel model, such as Chow Test, Hausman Test and Lagrange MultiplierTest. The Chow Test is used forchoose whether the PLS (Pooled Least Square) or Fixed Effect Model. The Hausman Test is used for choose Fixed Effect Model or Random Effect Model.The Lagrange Multiplier Test is a test tool to choose between PLS or Random Effect Model. (Juanda andJunaidi, 2012).

The Chow Test

The Chow Test is a testwhich is used to choose between modelspooled least square and fixed effect. Hypothesis testing of this model is:

H_0 :Pooled Least Square(PLS)

H_1 : Fixed Effect Model (FEM)

The Hausman Test

The Hausman Test is a test statistics as the basis of consideration in choosing to use a fixed effect model or random effect model . Hypothesis testing of this model is:

H_0 :Random Effect Model(REM)

H_1 : Fixed Effect Model (FEM)

The Lagrange Multiplier Test

The Lagrange Multiplier Test is a testused in theselection between REM and PLS. This test is based on the residual value of the model PLS (Juanda andJunaidi 2012). Hypothesis testing this model is:

H_0 :Pooled Least Square(PLS)

H_1 : Random Effect Model (REM)

3. Empirical Results

The Chow Test Results

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.446769	(2,110)	0.6408
Cross-section Chi-square	0.970830	2	0.6154

Based on result of the Chow Test with dependent variable Y it is known that p-value equal to 0.6408> α (0.05), therefore $H_0$is accepted. It can be concluded that Pooled Least Square model usage is more suitable than Fixed Effect Model (FEM).

The Hausman Test Results

Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	3.476718	4	0.4814

Based on the Hausman Test results with dependent variable Y it is known that p-value equal to 0.4814> α (0.05) therefore$H_0$is accepted. So it can be concluded that the use of Random Effect model is more suitable to be used than the Fixed Effect model.

The Lagrange Multiplier Test Results

Lagrange Multiplier Tests for Random Effects
Null hypotheses: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan)and one-sided (all others) alternatives

	Cross-section	Test Hypothesis Time	Both
Breusch-Pagan	1.019550	52.31047	53.33002
	(0.3126)	(0.0000)	(0.0000)

Based on the result of the Langrange Multiplier Test with dependent variable Y it is known that p-value equal to

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0.3126> α (0.05), therefore Hoiis accepted. It can be concluded that Pooled Least Square model usage is more suitable than Random Effect Model.
With the model as follows:

Return = 33.58 – 5,97 IndGDPgrowth + 0.81USGDPgrowth+ 2.29 ChinaGDPgrowth - 0.38 NIM + 0.09 NPL + 0.04 LDR - 1.01 CAR

Table 1: Factors that affect the stock returns

Variable	Coefficient	Prob
Indonesia GDP growth	-5.9712	0.0001**
United States GDP growth	0.8095	0.2829
China GDP growth	2.2972	0.0001**
NIM	-0.3824	0.5338
NPL	0.0921	0.8624
LDR	0.0397	0.7019
CAR	-1.0066	0.0014**
Constanta	33.5854	0.0329
R-squared	0.3098	
Prob (F-statistic)	0.0000	

**) significant at the level 5%

The T test results show, the factors that significantly impact the return of banking stock is China GDP growth, Indonesia GDP growth and CAR.China GDP growthhas significantand positive impact of 2.29 on stock returns. The results are consistent with research ofCashin et al. (2016), China negative output shock has a large (and statistically significant) impact on all ASEAN-5 countries (except for the Philippines), with output elasticities ranging between -0,23 and 0,35 percent.The China economywill affect performance of the economy of Indonesia and hence also the performance of the banks, so that it will affect the stock returns. The China economy will affect performance of the economy of Indonesia and hence also the performance of the banks, so that it will affect the stock returns. The slowing down of the China economy could increase non-performing loan of the Indonesia banking sector. China is the main export destination of commodity and mining products from Indonesia.China is the main export destination of commodity and mining products from Indonesia.

Indonesia GDPgrowthhas significant and negative impact of 5.97 on stock returns.The results are consistent with research ofSeptanti et al. (2016).According to Amitranet al. (2017), most of the value of the company's stock related to positive GDP beta (significant / not significant) with stock returns.Siegel (1991) in (Tandelilin, 2001) states that changes in stock prices always occur before changes in economic performance occur (Purnama et al. 2013). Impact of GDP to stock returns is not in the same period but in the next period.
CAR has significant and negative impact of 1.01 to stock returns. The results are consistent with research ofSeptanti et al. 2016. According toDhouibi 2016, in the positive economic growth period there is low risk and the banks retain low capital ratio and make more investments in other financial sectors. However, when there is negative growth rate banking firms may need a relatively high capital or may face sudden economic losses, to hedge that risk banks maintain high capital ratio.In the positive economic growth, the performance of banks would be positive, therefore investors more willing to invest their money in the banking stock so that will raise the stock price and return.

United States GDP growthhas no significant impact on stock returns.According to Bappenas simulation, slow growth China more influential than Trump Effect. The slowdown in China's economy will cause Indonesia's economic downturn of 0.72 percent, while Trump Effect will negatively impact Indonesia's GDP by 0.41 percent,(www.bappenas.go.id). LDR has nosignificantimpact on stock returns. The results are consistent with research of Renwarin(2017).NIMand NPLhas no significant impact on stock return. The results are consistent with research ofNurazi (2016).

Based on the output, the value of Prob (F-statistic) 0.0000 is less than the real level of 0.05. This means that the model as a whole affects the dependent variable in this case the return variable and the model is said to be feasible.

4. Conclusion

Impact of global economic slowdown particularly China GDP growth has positive and significantimpact to banking stock return.Indonesia GDP growth and CAR have a significant and negative impact on stock return. United States GDP growth, NIM, NPL and LDR have no significant impact to stock returns.

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