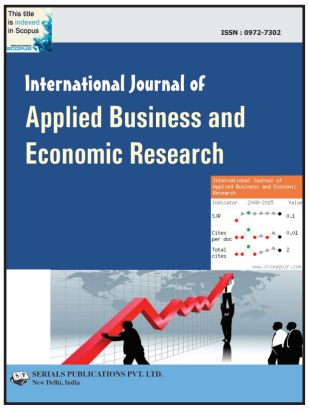

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The Role of Foreign Exchange State Owned Banks to Non Oil and Gas Exports in Indonesia 2016

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ABSTRACT

Due to the weakening of the global economy that occur until present time, delivers a direct impact on exports of non-oil & gas commodities in Indonesia. This study analyzes the role of exchange state banks on non-oil & gas exports in Indonesia. Analysis in this study involve independent variables which consist of variables of credit risk, market risk, and liquidity risk; an intervening variable of the credit loan for export given by exchange state banks in Indonesia, a dependent variable of non-oil & gas exports amount in Indonesia and variable moderation of inflation and currency exchange rate of Indonesian Rupiah toward USD. The theory behind this study include international trade theory, several concepts of export, theories of banking in Indonesia and theories of inflation and currency exchange rates. All datas from 2005 to 2015 are analyzed in this study by using econometrics tool which are multiple regression and path analysis using Eviews software version 9. The findings in this research are as follows: (a) simultaneously, variable of credit risk, market risk and liquidity risk have a significant influence on values of credit loan for export given by exchange state banks in Indonesia, (b) partially, credit loan values for export given by state banks in Indonesia gives a significant influence toward non-oil & gas exports in Indonesia, (c) credit loan values for export given by state banks in Indonesia mediate the effect of credit risk, market risk and liquidity risk of exchange state banks toward non-oil & gas exports in Indonesia, (d) partially, a moderating variable Inflation does not mediate variable of loan credit value for export tp non-oil & gas exports in Indonesia and (e) partially, a moderating variable exchange rate Rupiah to USD provides a weakening effect to variable of loan credit value for export and non-oil

& gas exports in Indonesia. The results of this research recommend: (a) maintain and supress credit risk (NPL), market risk (NIM) and liquidity risk (LDR) of exchange state banks, in order to support its role to encourage the activities of non-oil & gas exports in Indonesia, and (b) inflation and exchange rate of USD against Rupiah should be kept constantly monitored and well maintained hence supports export activities in Indonesia.

Keywords: Credits Value of Foreign Exchange State Owned Banks, Non-Oil & Gas Exports in Indonesia.

1. INTRODUCTION

Due to the weakening of the global economy that occur until present time, delivers a spillover effect to economy through the trade channel. As to the expanding integration inside global economy, economy issues of a country may contribute effects to other countries economy whether directly or indirectly. Export activity is very important to the growth and development of macroeconomy and microeconomy of a country. Indonesia, as a developing country from south-east Asia, are challenged to expand and diversivy their export commodities for long term projection.

Indonesian economy had grown up to 6,1% in 2008 which is however, lower compared to in 2007 which had reached 6,3% as shown in Table 46.1.

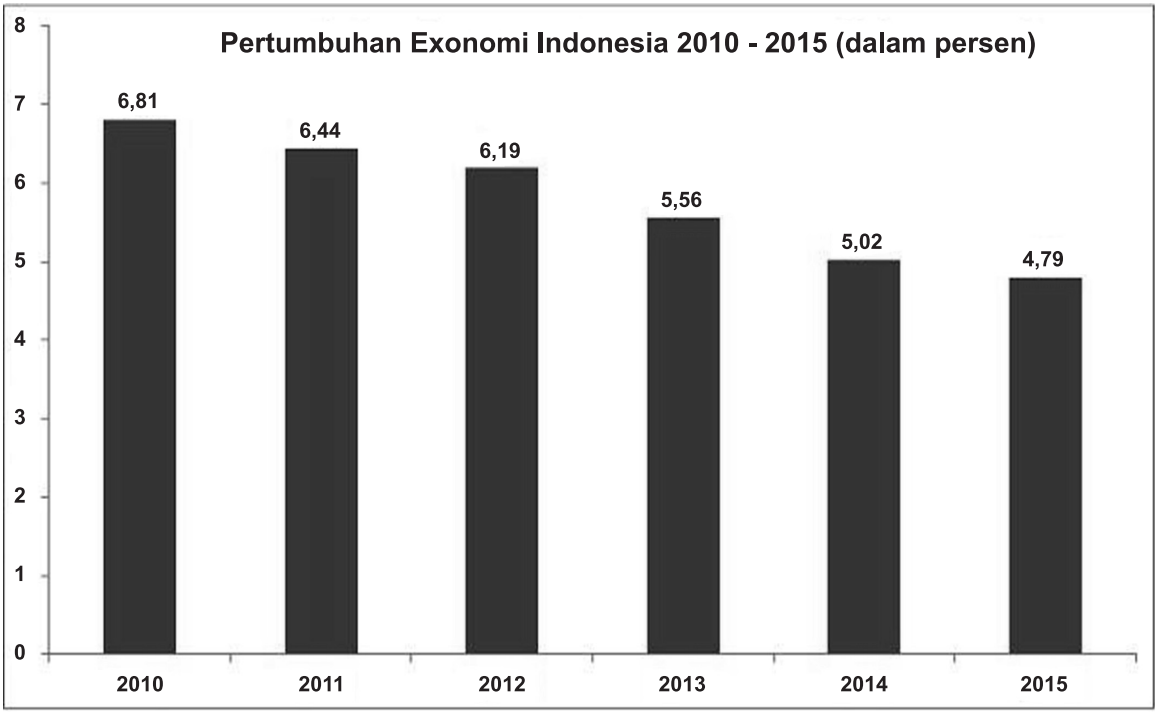
Table 46.1
Indonesian Economic Growth 2007-2010

Year	*GDP growth (annual %)*	*GDP per capita growth (annual %)*
2007	6,3	4,8
2008	6,1	4,5
2009	4,6	3,2
2010	6,2	4,8

Source: World Development Indicators/WDI, 2014

Non-oil&gas exports in Indonesia in the period of January-November 2010 increased, which were mainly dominated by some major commodities, such as textile, footwear, automotive parts, paper and some plantation products such as palm oil, cocoa and coffee. As stated by Deputy Trade Minister, Mahendra Siregar, that the trend of non-oil&gas exports of Indonesia in 2010 had shown a reversal in the positive direction, which is shown on the improved performance of non-oil&gas exports.

Table 46.2
Indonesian Economic Growth 2010-2015



(http://bisniskeuangan.kompas.com/read/2016/02/07/182803626/Pertumbuhan.Ekonomi.2015.Terendah.dalam.Enam.Tahun.Terakhir,.
http://www.bbc.com/indonesia/majalah/2016/04/160411_majalah_ekonomi_indonesia_bankdunia)

Table 46.3
Exports in Indonesia 2011-2015

Year	*Exports (Million Us$)*						
	Total	*Oil and Gas*	*Non-Oil and Gas*	*Industrial Sector*			
				Plantation	*Manufacture*	*Mining*	*Others*
2011	203.496	41.477	162.019	5.165	122.187	34.652	13
2012	190.031	36.977	153.043	5.569	116.123	31.329	18
2013	182.551	32.633	149.918	5.712	113.029	31.159	16
2014	176.292	30.331	145.961	5.770	117.329	22.850	10
2015	150.282	18.552	131.730	5.629	106.662	19.405	32

Source: Kemendag, 2015: Indikator Ekonomi Indonesia

The stability of Indonesian financial system is maintained and supported by a solid banking industry, hence to support the growth of economy. Credit risk, liquidity risk and market risk in the banking industry are relatively stable and controlled in order to support the credit given for exports. Two external factors that moderate the non-oil & gas exports in Indonesia are inflation and the currency exchange rate.

2. GAP RESEARCH

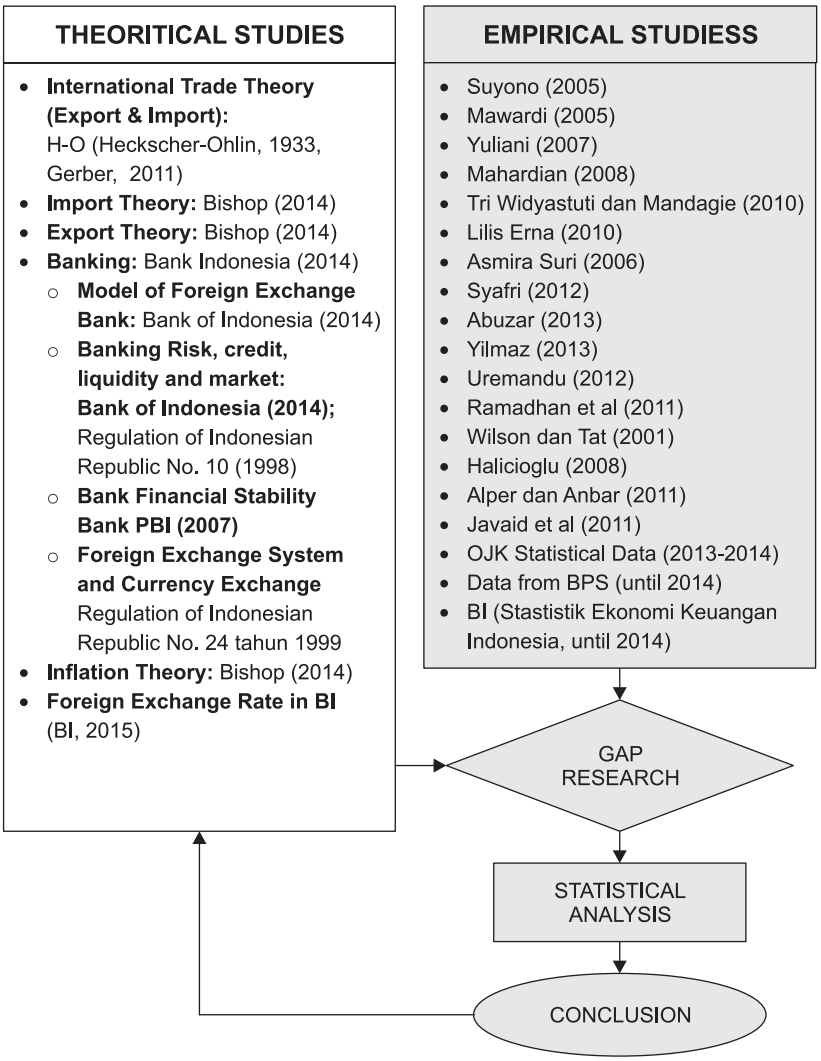
The following gap research:

1. How do the credit risk, market risk and liquidity risk of foreign exchange state owned banks affect the amount of credit given by those banks in Indonesia?
2. How does the amount of credit given by Indonesian foreign exchange state owned banks affect the non-oil & gas exports of Indonesia?
3. Does the amount of credit given by Indonesian foreign exchange state owned banks for exports mediate the influence of its credit risk, market risk and liquidity risk to the non-oil & gas exports of Indonesia?
4. How do the inflation and USD-to-IDR currency exchange rate moderate the amount of credit given by Indonesian foreign exchange state owned banks with the non-oil & gas exports of Indonesia?

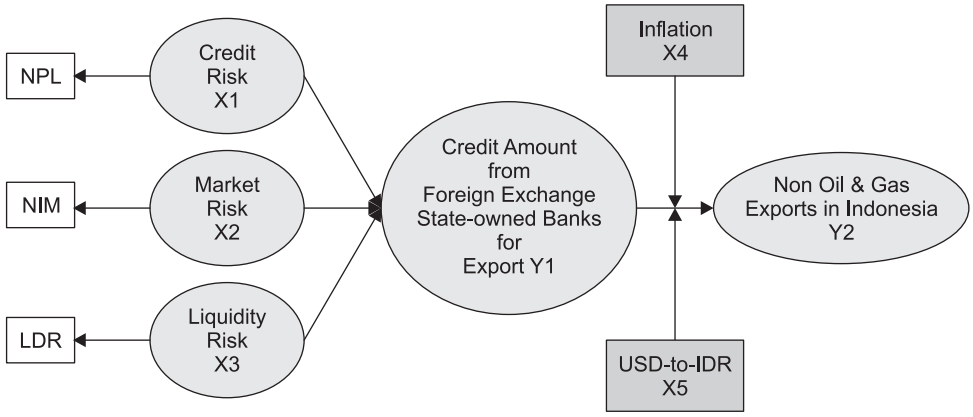
3. METHODOLOGY

The paradigm of this research could be illustrated in research paradigm.

Research Paradigm



The concept of research is as based on the detailed variables:



Where:

1. Independent variable: Credit Risk (X1), Market Risk (X2) and Liquidity Risk (X3).
2. Dependent variable: Non Oil & Gas Exports in Indonesia (Y2).
3. Intervening variable: Credit Amount given from State-owned Banks for Exports (Y1), and
4. Moderating variable: Inflation (X4) and USD-to-IDR Exchange Currency Rate (X5).

All secondary data that used in this paper were originally obtained from OJK (Financial Services Authority of Indonesia/*Otoritas Jasa Keuangan*), from 2005 up to 2015. The samples are categorized by sensus/saturated sampling from 4 (four) Indonesian foreign exchange state-owned banks, namely listed banks of BNI (Bank Negara Indonesia), BRI (Bank Rakyat Indonesia), BTN (Bank Tabungan Negara) and Bank Mandiri.

Statistical analysis for this research used the data panel regression and path analysis due to existing of the intervening variable (Y1). E-Views (Vol. 9) is used as the software for computing the statistical data.

The applied model of panel data regression is shown below:

$$Y_{1it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \varepsilon_{it}\ ;\ i = 1, 2, ..., n;\ t = 1, 2, ..., T \quad (3.1)$$

$$Y_{2it} = \beta_0 + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 Y_{1it} + \beta_7 X_4 \times Y_{1it} + \beta_8 X_5 \times Y_{1it} + u_{it};\ i = 1, 2, ..., n;\ t = 1, 2, ..., T \quad (3.2)$$

Where:

n : 4 of Foreign Exchange State-Owned Banks in Indonesia

t : 11 years (2005-2015)

$n \times t$: The Number of Data Panels

Y_{1it} : Credit Amount Given from Foreign Exchange State-owned Banks for Exports (intervening variable; number of i, period of t)

Y_{2it} : Non-Oil & Gas Exports (dependent variable; number of i, period of t)

X_{1it} : Credit Risk (NPL, independent variable; number of i, period of t)

X_{2it} : Market Risk (NIM, independent variable; number of *i*, period of *t*)

X_{3it} : Liquidity Risk (LDR, independent variable; number of *i*, period of *t*)

X_{4it} : Inflation (moderating variable; independent variable; number of *i*, period of *t*)

X_{5it} : USD to IDR Currency Rate (moderating variable; independent variable; number of *i*, period of *t*)

$X_{4it} \times Y_{1it}$: Interaction of Inflation with Credit Amount given from Foreign Exchange State-owned Banks for Exports

$X_{5it} \times Y_{1it}$: Interaction of USD to IDR Currency Rate with Credit Amount given from Foreign Exchange State-owned Banks for Exports

ε_{it} dan u_{it} : error term

α dan β_0 : intercept

$\beta_1 - \beta_8$: slope

(Gujarati, 2009)

4. ANALYSIS RESULT

1. Regression Analysis of Sub Structure-1

Regression analysis of sub structure-1 (random effect model) produces a result as shown below:

Table 46.4
Direct Effect of NPL, NIM and LDR to Credit Value of Export

Variable	*b*	*S.D(X)*	*S.D(Y1)*	ρ	*Sig.*
X1	–320,0578	9,8863	7711,72	–0,4103	0,0000
X2	–285,6577	4,9302	7711,72	–0,1826	0,0137
X3	–73,9626	28,1840	7711,72	–0,2703	0,0003

Source: EViews 9, processed data from attachment A

Table 46.1 indicates:

(a) Variable NPL with regression coefficient = –320,0578; path coefficient = –0,4103 and significancy result of 0,0000 < 0,05; therefore it is significant.

Direct effect of NPL toward credit value for export is significant.

(b) Variable NIM with regression coefficient = –285,6577; path coefficient = –0,1826 and significancy result of 0,0137 < 0,05; therefore it is significant.

Direct effect of NIM toward credit value for export is significant.

(c) Variable LDR with regression coefficient = –73,9626; path coefficient = –0,2703 and significancy result of 0,0003 < 0,05; therefore it is significant.

Direct effect of LDR toward credit value for export is significant.

2. Regression Analysis of Sub Structure-2

Regression analysis of sub structure-2 (common effect model) produces a result as shown below:

Table 46.5
Regression and Path Analysis of Sub Structure-2

Variable	*b*	*S.D(X)*	*S.D(Y2)*	ρ	*Sig.*
Y1	30,4426	7711,72	96180,60	2,4409	0,0000
X4*Y1	0,0916	110521,70	96180,60	0,1052	0,5531
X5*Y1	-0,0029	1,10E+08	96180,60	-3,3190	0,0000

Source: EViews 9, processed data from Attachment B

Table 46.2 indicates:

(a) Variable Credit Amount from Foreign Exchange State-owned Banks for Export (Y1) with regression coefficient = 30,4426; path coefficient = 2,4409 and significancy result of 0,0000 < 0,05; therefore it is significant and positive direction.

(b) Interaction of Inflation with Credit Amount given from Foreign Exchange State-owned Banks for Exports (X4 × Y1) with regression coefficient = 0,0916; path coefficient = 0,1052 and significancy result of 0,5531 < 0,05; therefore it is not significant, and variable inflation (X4) is not a moderator.

(c) Interaction of USD to IDR Currency Rate with Credit Amount given from Foreign Exchange State-owned Banks for Exports (X5 × Y1) with regression coefficient = –0,0029; path coefficient = –3,3190 and significancy result of 0,0000 < 0,05; therefore it is significant, and variable USD to IDR currency rate (X5) is a moderator.

Direct and Indirect effects of variable X1, X2, X3, and Y1 toward Y2 is shown below:

Table 46.6
Direct Effect of NPL, NIM, LDR and Credit Value for Export toward Non Oil & Gas Exports

Variable	*Effect*			
	Direct to Y1	*Indirect to Y2*	*Direct to Y2*	*Total Effect to Y2*
X1	–0,4103	–1,0015		–1,0015
X2	–0,1826	–0,4457		–0,4457
X3	–0,2703	–0,6598		–0,6598
Y1			2,4409	2,4409

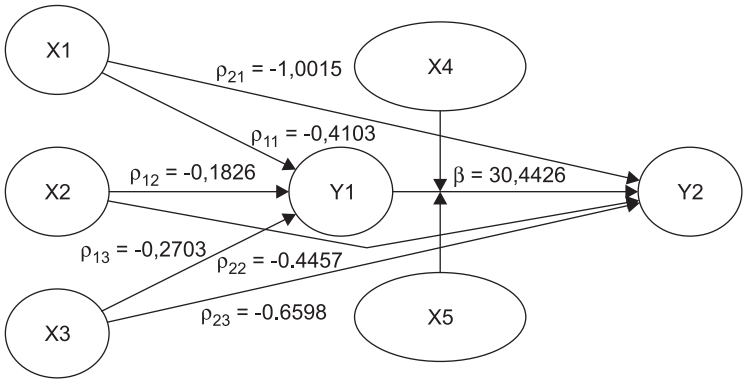
Source: EViews 9, processed data from Attachment B

Table 46.3 shows result shown below:

1. Direct effect to Credit Amount from Foreign Exchange State-owned Banks for Exports (Y1):
   (a) X1 to Y1: –0,4103 and significant
   (b) X2 to Y1: –0,1826 and significant
   (c) X3 to Y1: –0,2703 and significant

2. Direct effect to Non Oil & Gas Exports (Y2):
   (a) Y1 to Y2: 2,4409 and significant
3. Indirect effect to Non Oil & Gas Exports through intervening variable (Y1):
   (a) X1 to Y2: −0,4103 × 2,4409 = −1,0015
   (b) X2 to Y2: −0,1826 × 2,4409 = −0,4457
   (c) X3 to Y2: −0,2703 × 2,4409 = −0,6598
4. Total effect (indirect + direct) to Non Oil & Gas Exports (Y2):
   (a) X1 to Y2: −1,0015
   (b) X2 to Y2: −0,4457
   (c) X3 to Y3: −0,6598

Form of path analysis could obtain the path coefficient (ρ) and regression coefficient (β) as follows:



5. CONCLUSION

1. Simultaneously, variable of credit risk (NPL), market risk (NIM) and liquidity risk (LDR) give a significant effect to variable of credit amount from foreign exchange state-owned banks for export in Indonesia.
2. Partially, variable of credit amount from foreign exchange state-owned banks for export gives a positive effect and significant to variable of non oil & gas exports in Indonesia.
3. Variable of credit amount from foreign exchange state-owned banks for export given by foreign exchange state owned Banks in Indonesia mediates the effect of credit risk, market risk, and liquidity risk of those banks toward variable of non oil & gas exports in Indonesia.
4. Partially, variable of inflation and exports credit value give a positive but not significant effect to variable of non oil & gas exports in Indonesia. Therefore inflation is not a moderating variable.
5. Partially, variable of USD-to-IDR currency exchange rate and exports credit value give a negative and significant effect to variable of non oil & gas exports in Indonesia. Hence USD-to-IDR exchange rate is a moderating variable.

6. LIMITATION

This paper is limited to discussion of issues on the economic analysis of foreign exchange state owned banks which are listed on Indonesian Stock Exchange; where the statisctical data used are secondary data, obtained from OJK (Financial Services Authority of Indonesia/*Otoritas Jasa Keuangan*) and from Indonesian Ministry of Trade. The data of time series are limited from 2005 until 2015, in each quarter.

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Attachment A
Regression Analysis Sub Structure-1

Dependent Variable: Y1	
Method: Panel EGLS (Cross-section random effects)	
Date: 11/19/16	Time: 21:13
Sample: 2005Q1 2015Q4	
Periods included: 44	
Cross-sections included: 4	
Total panel (balanced) observations: 176	
Swamy and Arora estimator of component variances	

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	46047.26	1634.225	28.17682	0.0000
X1	–320.0578	46.83010	–6.834447	0.0000
X2	–285.6577	114.6500	–2.491563	0.0137
X3	–73.96258	19.99903	–3.698308	0.0003
Effects Specification				
			S.D.	*Rho*
Cross-section random			0.001070	0.0000
Idiosyncratic random			5840.658	1.0000
Weighted Statistics				
R-squared	0.435395	Mean dependent var		33769.64
Adjusted R-squared	0.425547	S.D. dependent var		7711.719
S.E. of regression	5844.916	Sum squared resid		5.88E+09
F-statistic	44.21262	Durbin-Watson stat		0.468210
Prob (F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.435395	Mean dependent var		33769.64
Sum squared resid	5.88E+09	Durbin-Watson stat		0.468210

Attachment B
Regression Analysis Sub Structure-2

Dependent Variable: Y2
Method: Panel Least Squares
Date: 12/01/16 Time: 22:31
Sample: 2005Q1 2015Q4
Periods included: 44
Cross-sections included: 4
Total panel (balanced) observations: 176

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	–1142549.	216706.6	–5.272332	0.0000
Y1	30.44263	5.796688	5.251729	0.0000
X4	–10690.73	4821.714	–2.217205	0.0279
Y1_X4	0.091592	0.154100	0.594369	0.5531
X5	146.1999	21.65496	6.751336	0.0000
Y1_X5	–0.002902	0.000573	–5.063989	0.0000
R-squared	0.649535	Mean dependent var		304828.3
Adjusted R-squared	0.639227	S.D. dependent var		96180.60
S.E. of regression	57770.28	Akaike info criterion		24.79983
Sum squared resid	5.67E+11	Schwarz criterion		24.90792
Log likelihood	–2176.385	Hannan-Quinn criter.		24.84367
F-statistic	63.01392	Durbin-Watson stat		0.407808
Prob(F-statistic)	0.000000			