



# CONFERENCE PROCEEDINGS

## The 14<sup>th</sup> IRSA International Conference

*"Strengthening Regional and Local Economies"*

Best Western Premier Solo

July, 23-24<sup>th</sup> 2018



Hosted by:

Faculty of Economics and Business- Universitas Sebelas Maret (UNS)  
 collaboration with IRSA

The 14<sup>th</sup> IRSA International Conference. Surakarta, July 23-24<sup>th</sup> 2018

### About Conference

This conference is IRSA's main annual event that promotes the advancement of research across the country. The conference will facilitate open discussions and debates, transfer of knowledge, strategies for policy formulation, and networking among scholars and policymakers. Each year since its establishment, the IRSA annual conference has been attended by a large number of academics and policymakers from numerous Indonesian institutions. IRSA has also created a large network of academics and policymakers who are concerned with issues of regional development. This network has now reached a critical mass that can play a major role not only in the academic arena through research and publications but also contribute to the evidence-based regional development policies nationally, regionally, and locally.



## PROCEEDING

### THE 14<sup>th</sup> IRSA INTERNATIONAL CONFERENCE 2018

#### Strengthening Regional and Local Economies

##### Editorial Board Tri

Mulyaningsih Bhimo

Rizky Samudro

##### Editor Board Members

Lukman Hakim SE, M.Si, Ph.D (Vice Dean FEB, Sebelas Maret University)

Dr. Siti Aisyah Tri Rahayu SE, M.Si (Head of Department of Development Economics, FEB UNS)

Prof. Yunastiti Purwaningsih MP (Sebelas Maret University)

Prof. JJ Sarungu MS (Sebelas Maret University)

Dr. Mulyanto (Sebelas Maret University)

Prof. Budy P. Resosudarmo (Advisor of IRSA/Australian National University)

Prof. Arief Anshory Yusuf (President of IRSA/Padjajaran University)

Dr. Hefrizal Handra (Vice President of IRSA/ Andalas University)

Dr. Djoni Hartono (Vice President of IRSA/ Indonesia University)

Devamto Pratomo Ph.D (Secretary General/ Brawijaya University)

Alin Halimatussadiyah (Secretary General/ Indonesia University)

# Market Structure and Bank-Lending Channel during the Consolidation Period

SITI AISYAH TRI RAHAYU

TRI MULYANINGSIH<sup>1</sup>

MALIK CAHYADIN

Faculty of Economic and Business

Universitas Sebelas Maret

Surakarta

<sup>1</sup>trimulyaningsih.uns@gmail.com

## ABSTRACT

*A prominent study by Bernanke and Gertler (1995) revealed that monetary policy influences both the borrowers' balance sheets and income statement as well as banks' lending capacity. The first influence is known as balance sheets channel and the second is identified as lending channel. The bank-lending channel is noticeable in a banks-dependent economy such as Indonesia where banks retained 86 percent of assets in the financial industry. According to Bernanke and Gertler (1995), the monetary policy of open market sales affects the supply of banks loans. The policy induces banks to lower their reserves that further reduces the deposits in the banking system and banks' lending capacity.*

*Some studies attempt to investigate the existence of lending channel in the banking industry. Agung (1998) examined empirically the lending channel in the Indonesian banking following the deregulation policies between 1983 and 1992. The study found that monetary policy transmitted to the real sector through the bank-lending channel. Nevertheless, the impact was merely significant among the small banks. Agung (1998) argued that large banks had larger access on the external source of funds such as foreign funds and bank loan commitment so the monetary policy was not effective in lowering their lending capacity. Further, Adams and Amel (2005) was keen to examine the lending channel particularly on small business loans in the US. Their study concluded that the monetary policy transmission is weakened in the more concentrated banking industry. Specifically, the study found that market imperfection of market power resulted from market concentration contributed to lower the sensitivity of bank lending to the federal funds rate. Meanwhile, more recent paper by Amidu and Wolfe (2013) using dataset of 978 banks from 55 countries found a contrasting evidence. They argued that a more competitive banking contributes to weaken the monetary policy effectiveness on banks' lending.*

*This study aims to extend the literature on lending channel by examining the role of market structure on lending capacity constraint in the Indonesian banking industry. It is critical to explore the lending channel as Indonesia monetary policy transmission in increasing access to banking credit is not effective. The reference interest rate of the central bank has been lowered but borrowers still complaint about the lack of access to banking lending. Meanwhile, the degree of market competition in the Indonesian banking industry is low signaling the existence of market power of large banks. A study by Mulyaningsih (2014) indicated that the competition in the Indonesian banking during the consolidation period after 1997/1998 economic crisis was worse compared to the deregulation period in the 1990s.*

*In order to investigate the possible role of market concentration in explaining the bank-lending channel in Indonesian banking, this paper will employ the general method of moment approach. This approach is preferred because it is capable to manage the endogeneity issue due to the reverse*

*causality and omitted variable bias. Particularly, this study focuses on the Indonesian banking industry consisted of 101 banks of the observation period between 2005 and 2014.*

**Keywords:** banking, market structure, lending channel

## INTRODUCTION

The economic policies are applied the government to regulate economic activities and to achieve economic stability. One of the policies is monetary policy. Monetary policy aims to control monetary system in a country. In Indonesia, there are two monetary operation instruments in order to implement monetary policy, that are open market operation and standing facilities.

To attain the goal of monetary policy, it is important to understand the channels through which policy are transmitted to the economy. In Indonesia, there are six channels that are money channel, lending channel, interest rate channel, exchange rate channel, asset price channel, and expectation channel (Central Bank of Indonesia, 2004). According to Bacchetta and Ballabriga (2000), there are three channels on how monetary policy has been transmitted. They are

Since Indonesian economic system is a bank based economy where banks retained 86 percent of assets in the financial industry, banks have significant role to transmit the policies through lending channel. Mishkin (1995) explained, in lending channel, a monetary contraction when central bank increase interest rates the banks' reserves and deposit get reduced. It means the

A The economic policies have imp

In Indonesia, there are two monetary policy instrument that are open market operation and standing facilities. According to Bernanke and Gertler (1995), the monetary policy of open market sales affects the supply of banks loans. The policy induces banks to lower their reserves that further reduces the deposits in the banking system and banks' lending capacity.

This study examines monetary transmission through lending channels mechanism and it's relation to market concentration.

## LITERATURE REVIEW

The empirical studies on bank lending channel is varied widely among other nations. In US

Monetary policy transmission has been a prominent issue to understand. There are some studies discussed

Kashyap and Stein (1995) stated that large banks have access to non-deposit funds and small banks are easily constrained due to monetary contraction.

A study by Kashyap and Stein (1995) revealed that a contraction in monetary policy has a quite similar effect on core deposits accross size classes.

Agung (1998) found that bank lending channel transmission only affect to small bank. The transmission do not affect large bank. It is because large bank had access the external source of by issuing non-deposit funds or borrowing abroad.

## METHODOLOGY

This study treats lending supply as exogenous variable and money supply, investment, and credit interest as endogenous variable.

This paper employ Vector Auto Regression (VAR) to examine the monetary transmission mechanisms.

One of the advantages of VAR is only requires a small number of variables (

There are two market concentration index that commonly used, they are  $CR_k$  and Herfindahl-Index (HHI).  $CR_k$  explains the given firms' market size to the whole market size in their industry. HHI uses market shares as weights, thus larger banks are assigned larger weights in order to take into account the different sizes of banks in the market.

The formula of HHI is as follows :

$$HHI = \sum_{i=1}^n s_i^2$$

Where,  $s_i$  refers to the market share of bank  $i$  in the market and  $n$  is the number of banks. The Herfindahl Index (H) ranges from  $1/N$  to one, where  $N$  is the number of banks in the market. The value of HHI implies the level of concentration in the industry where the larger the value of the index demonstrates a more concentrated market. For an industry that consists of a single monopoly,  $HHI=1$  because a monopolist has a market share of  $s_1 = 1$  thus  $\sum s_i^2 = 1$ . On the other hand, an industry with  $N$  banks with equal market shares will have  $HHI=1/N$  (Lipezynski, Wilson & Goddard 2005).

## RESULT AND DISCUSSION

- The unit root test reveals all variables are stationary at difference using Phillip-Pheron assumption.
- Credit, credit interest, money supply, and investment are stationary at difference
- 

## SUMMARY AND CONCLUSIONS

## REFERENCES

Agung, J. (1998). Financial deregulation and the bank lending channel in developing countries: the case of Indonesia. *Asian Economic Journal*, 12(3), 273-294.

Amidu, M., & Wolfe, S. (2013). The effect of banking market structure on the lending channel: Evidence from emerging markets. *Review of Financial Economics*, 22(4), 146-157.

Kashyap, A. K., & Stein, J. C. (1995, June). The impact of monetary policy on bank balance sheets. In *Carnegie-Rochester Conference Series on Public Policy* (Vol. 42, pp. 151-195). North-Holland.

Lipezynski, J, Wilson, J & Goddard, J 2005, *Industrial Organization: Competition, Strategy, Policy*, Pearson Education Limited, Essex.

Lipezynski, J, Wilson, J & Goddard, J 2005, *Industrial Organization: Competition, Strategy, Policy*, Pearson Education Limited, Essex.

Warjiyo, P. (2017). *Kebijakan Moneter di Indonesia* (Vol. 6). Pusat Pendidikan Dan Studi Kebanksentralan (PPSK) Bank Indonesia.

## APPENDIX

### A. UNIT ROOT TEST



## 1. Credit Interest

Null Hypothesis: D(CREDITINTEREST) has a unit root  
 Exogenous: Constant  
 Bandwidth: 28 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-7.856181	0.0000
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

\*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.233417
HAC corrected variance (Bartlett kernel)	0.037746

### Phillips-Perron Test Equation

Dependent Variable: D(CREDITINTEREST,2)

Method: Least Squares

Date: 06/29/18 Time: 23:59

Sample (adjusted): 2005Q3 2016Q4

Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CREDITINTEREST(-1))	-0.898641	0.150054	-5.988772	0.0000
C	-0.044984	0.073202	-0.614528	0.5420
R-squared	0.449073	Mean dependent var		-0.001159
Adjusted R-squared	0.436552	S.D. dependent var		0.658100
S.E. of regression	0.493991	Akaike info criterion		1.469905
Sum squared resid	10.73718	Schwarz criterion		1.549411
Log likelihood	-31.80780	Hannan-Quinn criter.		1.499688
F-statistic	35.86539	Durbin-Watson stat		1.865997
Prob(F-statistic)	0.000000			

## 2. Lninvestasi

Null Hypothesis: D(LNINVESTASI) has a unit root

Exogenous: Constant  
 Bandwidth: 1 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-6.570253	0.0000
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

\*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.150589
HAC corrected variance (Bartlett kernel)	0.150545

Phillips-Perron Test Equation  
 Dependent Variable: D(LNINVESTASI,2)  
 Method: Least Squares  
 Date: 06/30/18 Time: 00:01  
 Sample (adjusted): 2005Q3 2016Q4  
 Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNINVESTASI(-1))	-0.990518	0.150757	-6.570284	0.0000
C	-0.004317	0.058506	-0.073789	0.9415
R-squared	0.495231	Mean dependent var		0.000188
Adjusted R-squared	0.483759	S.D. dependent var		0.552234
S.E. of regression	0.396780	Akaike info criterion		1.031633
Sum squared resid	6.927099	Schwarz criterion		1.111139
Log likelihood	-21.72757	Hannan-Quinn criter.		1.061417
F-statistic	43.16864	Durbin-Watson stat		2.000197
Prob(F-statistic)	0.000000			

### 3. Lnjub



Null Hypothesis: D(LNJUB) has a unit root  
 Exogenous: Constant  
 Bandwidth: 12 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-10.98187	0.0000
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

\*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.000615
HAC corrected variance (Bartlett kernel)	0.000580

Phillips-Perron Test Equation  
 Dependent Variable: D(LNJUB,2)  
 Method: Least Squares  
 Date: 06/30/18 Time: 00:03  
 Sample (adjusted): 2005Q3 2016Q4  
 Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNJUB(-1))	-1.457208	0.134466	-10.83702	0.0000
C	0.048720	0.005840	8.343007	0.0000
R-squared	0.727455	Mean dependent var	9.18E-05	
Adjusted R-squared	0.721261	S.D. dependent var	0.048008	
S.E. of regression	0.025346	Akaike info criterion	-4.469864	
Sum squared resid	0.028267	Schwarz criterion	-4.390358	
Log likelihood	104.8069	Hannan-Quinn criter	-4.440080	
F-statistic	117.4411	Durbin-Watson stat	2.004227	
Prob(F-statistic)	0.000000			

#### 4. Inkredit

Null Hypothesis: D(LNKREDIT) has a unit root  
 Exogenous: Constant  
 Bandwidth: 1 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-6.115987	0.0000
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

\*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.000741
HAC corrected variance (Bartlett kernel)	0.000701

Phillips-Perron Test Equation  
 Dependent Variable: D(LNKREDIT,2)  
 Method: Least Squares  
 Date: 06/30/18 Time: 00:18  
 Sample (adjusted): 2005Q3 2016Q4  
 Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNKREDIT(-1))	-0.904411	0.147593	-6.127757	0.0000
C	0.038225	0.007579	5.043701	0.0000
R-squared	0.460450	Mean dependent var		-0.000819
Adjusted R-squared	0.448187	S.D. dependent var		0.037466
S.E. of regression	0.027831	Akaike info criterion		-4.282817
Sum squared resid	0.034081	Schwarz criterion		-4.203311
Log likelihood	100.5048	Hannan-Quinn criter.		-4.253034
F-statistic	37.54940	Durbin-Watson stat		2.076245
Prob(F-statistic)	0.000000			

## B. UJI KOINTEGRASI

Date: 06/30/18 Time: 00:20  
 Sample (adjusted): 2005Q3 2016Q4  
 Included observations: 46 after adjustments  
 Trend assumption: Linear deterministic trend  
 Series: LNKREDIT LNJUB LNINVESTASI CREDITINTEREST  
 Lags interval (in first differences): 1 to 1

### Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.515288	65.01028	47.85613	0.0006
At most 1 *	0.370895	31.69709	29.79707	0.0298
At most 2	0.156104	10.37809	15.49471	0.2528
At most 3	0.054352	2.570696	3.841466	0.1089

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

### Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.515288	33.31319	27.58434	0.0082
At most 1 *	0.370895	21.31900	21.13162	0.0471
At most 2	0.156104	7.807392	14.26460	0.3986
At most 3	0.054352	2.570696	3.841466	0.1089

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by  $b^*S11^*b=l$ ):

			CREDITINTERE
LNKREDIT	LNJUB	LNINVESTASI	ST
12.53177	-10.63897	0.983975	2.714930
20.92475	-29.63118	0.690804	0.264452
-26.89455	35.91603	0.860332	0.715940
17.67505	-21.98932	-1.056558	0.850610

Unrestricted Adjustment Coefficients (alpha):

D(LNKREDIT)	-0.011179	0.001796	-5.12E-05	0.002135
D(LNJUB)	-0.002745	0.008023	-0.002415	0.004011
D(LNINVESTASI)	-0.013415	-0.188429	-0.022510	0.036730
D(CREDITINTE REST)	-0.067014	0.088002	-0.154994	-0.016637

1 Cointegrating Equation(s):      Log likelihood      216.2725

Normalized cointegrating coefficients (standard error in parentheses)

			CREDITINTERE
LNKREDIT	LNJUB	LNINVESTASI	ST
1.000000	-0.848960	0.078518	0.216644
	(0.07705)	(0.02176)	(0.03442)

Adjustment coefficients (standard error in parentheses)

D(LNKREDIT)	-0.140091		
	(0.02872)		
D(LNJUB)	-0.034400		
	(0.04492)		
D(LNINVESTASI)	-0.168109		
	(0.69765)		
D(CREDITINTE REST)	-0.839806		
	(0.85015)		

2 Cointegrating Equation(s):      Log likelihood      226.9320

Normalized cointegrating coefficients (standard error in parentheses)

			CREDITINTERE
LNKREDIT	LNJUB	LNINVESTASI	ST
1.000000	0.000000	0.146637	0.522032
		(0.05681)	(0.04125)
0.000000	1.000000	0.080238	0.359720
		(0.04638)	(0.03367)

Adjustment coefficients (standard error in parentheses)

D(LNKREDIT)	-0.102502	0.065703
	(0.05547)	(0.07160)
D(LNJUB)	0.133469	-0.208512
	(0.08178)	(0.10556)
D(LNINVESTASI)	-4.110941	5.726094
	(1.14700)	(1.48056)
D(CREDITINTE REST)	1.001617	-1.894646
	(1.61946)	(2.09041)

---



---

3 Cointegrating Equation(s):            Log likelihood            230.8357

---



---

Normalized cointegrating coefficients (standard error in parentheses)

	LNKREDIT	LNJUB	LNINVESTASI	CREDITINTERE ST
	1.000000	0.000000	0.000000	0.381972 (0.04512)
	0.000000	1.000000	0.000000	0.283081 (0.03276)
	0.000000	0.000000	1.000000	0.955146 (0.20233)

Adjustment coefficients (standard error in parentheses)

	D(LNKREDIT)	D(LNJUB)	D(LNINVESTASI)	D(CREDITINTE REST)
	-0.101125 (0.08257)	0.198416 (0.12094)	0.063863 (0.10862)	-0.009803 (0.00336)
		-3.505542 (1.70251)	-0.295245 (0.15909)	0.000763 (0.00492)
			4.917620 (2.23963)	-0.162733 (0.06932)
				5.170120 (2.24049)
				-7.461427 (2.94733)
				-0.138494 (0.09123)

---



---

## C. LAG LENGTH

VAR Lag Order Selection Criteria

Endogenous variables: D(LNKREDIT) D(CREDITINTEREST) D(LNINVESTASI) D(LNJUB)

Exogenous variables: C

Date: 06/30/18 Time: 00:45

Sample: 2005Q1 2016Q4

Included observations: 46

Lag	LogL	LR	FPE	AIC	SC	HQ
0	166.9307	NA	9.85e-09	-7.083945	-6.924933	-7.024378
1	199.6159	58.26494*	4.79e-09*	-7.809389*	-7.014327*	-7.511554*

\* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

## D. VAR ESTIMATION

Vector Autoregression Estimates

Date: 06/30/18 Time: 00:44

Sample (adjusted): 2005Q3 2016Q4

Included observations: 46 after adjustments  
Standard errors in ( ) & t-statistics in [ ]

	D(LNKREDIT)	D(CREDITINTEREST)	D(LNINVESTASI)	D(LNJUB)
D(LNKREDIT(-1))	0.811991 (0.15206) [ 5.33989]	10.10794 (3.60744) [ 2.80197]	3.219258 (2.92697) [ 1.09986]	0.509300 (0.18971) [ 2.68457]
D(CREDITINTEREST(-1))	-0.016649 (0.00632) [-2.63456]	0.094914 (0.14992) [ 0.63310]	0.278725 (0.12164) [ 2.29139]	-0.002102 (0.00788) [-0.26665]
D(LNINVESTASI(-1))	-0.002810 (0.00753) [-0.37310]	-0.315558 (0.17865) [-1.76637]	0.026733 (0.14495) [ 0.18443]	-0.003330 (0.00940) [-0.35440]
D(LNJUB(-1))	-0.882768 (0.15920) [-5.54490]	-7.634482 (3.77689) [-2.02137]	-1.065855 (3.06445) [-0.34781]	-0.822463 (0.19862) [-4.14079]
C	0.035931 (0.00552) [ 6.51141]	-0.228336 (0.13091) [-1.74421]	-0.094056 (0.10622) [-0.88551]	0.038804 (0.00688) [ 5.63641]
R-squared	0.552022	0.200379	0.175668	0.327872
Adj. R-squared	0.508317	0.122367	0.095246	0.262298
Sum sq. resid	0.015413	8.674706	5.710741	0.023991
S.E. equation	0.019389	0.459976	0.373211	0.024190
F-statistic	12.63059	2.568572	2.184314	5.000069
Log likelihood	118.7558	-26.90188	-17.28644	108.5791
Akaike AIC	-4.945906	1.387038	0.968976	-4.503439
Schwarz SC	-4.747141	1.585804	1.167741	-4.304673
Mean dependent	0.042352	-0.049928	-0.004360	0.033463
S.D. dependent	0.027651	0.490997	0.392364	0.028164
Determinant resid covariance (dof adj.)		3.17E-09		
Determinant resid covariance		2.00E-09		
Log likelihood		199.6159		
Akaike information criterion		-7.809389		
Schwarz criterion		-7.014327		

The 14<sup>th</sup> IRSA Conference 2018  
Surakarta, Central Java  
Strengthening Regional and Local Economy

# Market Structure and Bank-Lending Channel during the Consolidation Period

*by* Leon Akbar

---

**Submission date:** 25-Sep-2019 09:01PM (UTC+0700)

**Submission ID:** 1179783726

**File name:** ion\_Period\_Siti\_Aisyah\_TR,\_Tri\_Mulyaningsih,\_Malik\_Cahyadin.pdf (453.91K)

**Word count:** 3027

**Character count:** 16468

## Market Structure and Bank-Lending Channel during the Consolidation Period

SITI AISYAH TRI RAHAYU

TRI MULYANINGSIH<sup>1</sup>

MALIK CAHYADIN

Faculty of Economic and Business

Universitas Sebelas Maret

Surakarta

<sup>1</sup>trimulyaningsih.uns@gmail.com

### ABSTRACT

A prominent study by Bernanke and Gertler (1995) revealed that monetary policy influences both the borrowers' balance sheets and income statement as well as banks' lending capacity. The first influence is known as balance sheets channel and the second is identified as lending channel. The bank-lending channel is noticeable in a banks-dependent economy such as Indonesia where banks retained 86 percent of assets in the financial industry. According to Bernanke and Gertler (1995), the monetary policy of open market sales affects the supply of banks loans. The policy induces banks to lower their reserves that further reduces the deposits in the banking system and banks' lending capacity.

Some studies attempt to investigate existence of lending channel in the banking industry. Agung (1998) examined empirically the lending channel in the Indonesian banking following the deregulation policies between 1983 and 1992. The study found that monetary policy transmitted to the real sector through the bank-lending channel. Nevertheless, the impact was merely significant among the small banks. Agung (1998) argued that large banks had larger access on the external source of funds such as foreign funds and bank loan commitment so the monetary policy was not effective in lowering their lending capacity. Further, Adams and Amel (2005) was keen to examine lending channel particularly on small business loans in the US. Their study concluded that the monetary policy transmission is weakened in the more concentrated banking industry. Specifically, the study found that market imperfection of market power resulted from market concentration contributed to lower the sensitivity of bank lending to the federal funds rate. Meanwhile, more recent paper by Amidu and Wolfe (2013) using dataset of 978 banks from 55 countries found a contrasting evidence. They argued that a more competitive banking contributes to weaken the monetary policy effectiveness on banks' lending.

This study aims to extend the literature on lending channel by examining the role of market structure on lending capacity constraint in the Indonesian banking industry. It is critical to explore the lending channel as Indonesia monetary policy transmission in increasing access to banking credit is not effective. The reference interest rate of the central bank has been lowered but borrowers still complaint about the lack of access to banking lending. Meanwhile, the degree of market competition in the Indonesian banking industry is low signaling the existence of market power of large banks. A study by Mulyaningsih (2014) indicated that the competition in the Indonesian banking during the consolidation period after 1997/1998 economic crisis was worse compared to the deregulation period in the 1990s.

In order to investigate the possible role of market concentration in explaining the bank-lending channel in Indonesian banking, this paper will employ the general method of moment approach. This approach is preferred because it is capable to manage the endogeneity issue due to the reverse

*causality and omitted variable bias. Particularly, this study focuses on the Indonesian banking industry consisted of 101 banks of the observation period between 2005 and 2014.*

**Keywords:** banking, market structure, lending channel

## INTRODUCTION

The economic policies are applied the government to regulate economic activities and to achieve economic stability. One of the policies is monetary policy. Monetary policy aims to control monetary system in a country. In Indonesia, there are two monetary operation instruments in order to implement monetary policy, that are open market operation operation and standing facilities.

To attain the goal of monetary policy, it is important to understand the channels through which policy are transmitted to the economy. In Indonesia, there are six channels that are money channel, lending channel, interest rate channel, exchange rate channel, asset price channel, and expectation channel (Central Bank of Indonesia, 2004). According to Bacchetta and Ballabriga (2000), there are three channels on how monetary policy has been transmitted. They are

Since Indonesian economic system is a bank based economy where banks retained 86 percent of assets in the financial industry, banks have significant role to transmit the policies through lending channel. Mishkin (1995) explained, in lending channel, a monetary contraction when central bank increase interest rates the banks' reserves and deposit get reduced. It means the

A The economic policies have imp

In Indonesia, there are two monetary policy instrument that are open market operation operation and standing facilities. According to Bernanke and Gertler (1995), the monetary policy of open market sales affects the supply of banks loans. The policy induces banks to lower their reserves that further reduces the deposits in the banking system and banks' lending capacity.

This study examines monetary transmission through lending channels mechanism and it's relation to market concentration.



## LITERATURE REVIEW

The empirical studies on bank lending channel is varied widely among other nations. In US

Monetary policy transmission has been a prominent issue to understand. There are some studies discussed

Kashyap and Stein (1995) stated that large banks have access to non-deposit funds and small banks are easily constrained due to monetary contraction.

A study by Kashyap and Stein (1995) revealed that a contraction in monetary policy has a quite similar effect on core deposits across size classes.

Agung (1998) found that bank lending channel transmission only affect to small bank. The transmission do not affect large bank. It is because large bank had access the external source of by issuing non-deposit funds or borrowing abroad.

## METHODOLOGY

This study treats lending supply as exogenous variable and money supply, investment, and credit interest as endogenous variable.

This paper employ Vector Auto Regression (VAR) to examine the monetary transmission mechanisms.

One of the advantages of VAR is only requires a small number of variables (

There are two market concentration index that commonly used, they are  $CR_k$  and Herfindahl-Index (HHI).  $CR_k$  explains the given firms' market size to the whole market size in their industry. HHI uses market shares as weights, thus larger banks are assigned larger weights in order to take into account the different sizes of banks in the market.

The formula of HHI is as follows :

$$HHI = \sum_{i=1}^n S_i^2$$

Where,  $s_i$  refers to the market share of bank  $i$  in the market and  $n$  is the number of banks. The Herfindahl Index (H) ranges from  $1/N$  to one, where  $N$  is the number of banks in the market. The value of HHI implies the level of concentration in the industry where the larger the value of the index demonstrates a more concentrated market. For an industry that consists of a single monopoly,  $HHI=1$  because a monopolist has a market share of  $s_1=1$  thus  $\sum s_i^2 = 1$ . On the other hand, an industry with  $N$  banks with equal market shares will have  $HHI=1/N$  (Lipezynski, Wilson & Goddard 2005).

## RESULT AND DISCUSSION

- 10 The unit root test reveals all variables are stationary at difference using Phillip-Pheron assumption.
- Credit, credit interest, money supply, and investment are stationary at difference
- 

## SUMMARY AND CONCLUSIONS

8

## REFERENCES

Agung, J. (1998). Financial deregulation and the bank lending channel in developing countries: the case of Indonesia. *Asian Economic Journal*, 12(3), 273-294.

7

Amidu, M., & Wolfe, S. (2013). The effect of banking market structure on the lending channel: Evidence from emerging markets. *Review of Financial Economics*, 22(4), 146-157.

6

Kashyap, A. K., & Stein, J. C. (1995, June). The impact of monetary policy on bank balance sheets. In *Carnegie-Rochester Conference Series on Public Policy* (Vol. 42, pp. 151-195). North-Holland.

5

Lipezynski, J, Wilson, J & Goddard, J 2005, *Industrial Organization: Competition, Strategy, Policy*, Pearson Education Limited, Essex.

5

Lipezynski, J, Wilson, J & Goddard, J 2005, *Industrial Organization: Competition, Strategy, Policy*, Pearson Education Limited, Essex.

12

Warjiyo, P. (2017). *Kebijakan Moneter di Indonesia* (Vol. 6). Pusat Pendidikan Dan Studi Kebanksentralan (PPSK) Bank Indonesia.

## APPENDIX

### A. UNIT ROOT TEST

## 1. Credit Interest

Null Hypothesis: D(CREDITINTEREST) has a unit root  
 Exogenous: Constant  
 Bandwidth: 28 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-7.856181	0.0000
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

\*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.233417
HAC corrected variance (Bartlett kernel)	0.037746

### Phillips-Perron Test Equation

Dependent Variable: D(CREDITINTEREST,2)  
 Method: Least Squares  
 Date: 06/29/18 Time: 23:59  
 Sample (adjusted): 2005Q3 2016Q4  
 Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CREDITINTEREST(-1))	-0.898641	0.150054	-5.988772	0.0000
C	-0.044984	0.073202	-0.614528	0.5420
R-squared	0.449073	Mean dependent var		-0.001159
Adjusted R-squared	0.436552	S.D. dependent var		0.658100
S.E. of regression	0.493991	Akaike info criterion		1.469905
Sum squared resid	10.73718	Schwarz criterion		1.549411
Log likelihood	-31.80780	Hannan-Quinn criter.		1.499688
F-statistic	35.86539	Durbin-Watson stat		1.865997
Prob(F-statistic)	0.000000			

## 2. Lninvestasi

Null Hypothesis: D(LNINVESTASI) has a unit root

Exogenous: Constant  
 Bandwidth: 1 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
<b>Phillips-Perron test statistic</b>	-6.570253	0.0000
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

\*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.150589
HAC corrected variance (Bartlett kernel)	0.150545

Phillips-Perron Test Equation

Dependent Variable: D(LNINVESTASI,2)

Method: Least Squares

Date: 06/30/18 Time: 00:01

Sample (adjusted): 2005Q3 2016Q4

Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNINVESTASI(-1))	-0.990518	0.150757	-6.570284	0.0000
C	-0.004317	0.058506	-0.073789	0.9415
R-squared	0.495231	Mean dependent var		0.000188
Adjusted R-squared	0.483759	S.D. dependent var		0.552234
S.E. of regression	0.396780	Akaike info criterion		1.031633
Sum squared resid	6.927099	Schwarz criterion		1.111139
Log likelihood	-21.72757	Hannan-Quinn criter.		1.061417
F-statistic	43.16864	Durbin-Watson stat		2.000197
Prob(F-statistic)	0.000000			

### 3. Lnjub

Null Hypothesis: D(LNJUB) has a unit root  
 Exogenous: Constant  
 Bandwidth: 12 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-10.98187	0.0000
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

\*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.000615
HAC corrected variance (Bartlett kernel)	0.000580

Phillips-Perron Test Equation

Dependent Variable: D(LNJUB,2)

Method: Least Squares

Date: 06/30/18 Time: 00:03

Sample (adjusted): 2005Q3 2016Q4

Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNJUB(-1))	-1.457208	0.134466	-10.83702	0.0000
C	0.048720	0.005840	8.343007	0.0000
R-squared	0.727455	Mean dependent var		9.18E-05
Adjusted R-squared	0.721261	S.D. dependent var		0.048008
S.E. of regression	0.025346	Akaike info criterion		-4.469864
Sum squared resid	0.028267	Schwarz criterion		-4.390358
Log likelihood	104.8069	Hannan-Quinn criter.		-4.440080
F-statistic	117.4411	Durbin-Watson stat		2.004227
Prob(F-statistic)	0.000000			

#### 4. Inkredit

Null Hypothesis: D(LNKREDIT) has a unit root  
 Exogenous: Constant  
 Bandwidth: 1 (Newey-West automatic) using Bartlett kernel

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-6.115987	0.0000
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

\*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.000741
HAC corrected variance (Bartlett kernel)	0.000701

Phillips-Perron Test Equation

Dependent Variable: D(LNKREDIT,2)

Method: Least Squares

Date: 06/30/18 Time: 00:18

Sample (adjusted): 2005Q3 2016Q4

Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNKREDIT(-1))	-0.904411	0.147593	-6.127757	0.0000
C	0.038225	0.007579	5.043701	0.0000
R-squared	0.460450	Mean dependent var		-0.000819
Adjusted R-squared	0.448187	S.D. dependent var		0.037466
S.E. of regression	0.027831	Akaike info criterion		-4.282817
Sum squared resid	0.034081	Schwarz criterion		-4.203311
Log likelihood	100.5048	Hannan-Quinn criter.		-4.253034
F-statistic	37.54940	Durbin-Watson stat		2.076245
Prob(F-statistic)	0.000000			

## B. UJI KOINTEGRASI

Date: 06/30/18 Time: 00:20

Sample (adjusted): 2005Q3 2016Q4

Included observations: 46 after adjustments

Trend assumption: Linear deterministic trend

Series: LNKREDIT LNJUB LNINVESTASI CREDITINTEREST

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.515288	65.01028	47.85613	0.0006
At most 1 *	0.370895	31.69709	29.79707	0.0298
At most 2	0.156104	10.37809	15.49471	0.2528
At most 3	0.054352	2.570696	3.841466	0.1089

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.515288	33.31319	27.58434	0.0082
At most 1 *	0.370895	21.31900	21.13162	0.0471
At most 2	0.156104	7.807392	14.26460	0.3986
At most 3	0.054352	2.570696	3.841466	0.1089

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by  $b^*S11*b=1$ ):

	LNKREDIT	LNJUB	LNINVESTASI	CREDITINTERE ST
	12.53177	-10.63897	0.983975	2.714930
	20.92475	-29.63118	0.690804	0.264452
	-26.89455	35.91603	0.860332	0.715940
	17.67505	-21.98932	-1.056558	0.850610

Unrestricted Adjustment Coefficients (alpha):

	LNKREDIT	LNJUB	LNINVESTASI	CREDITINTERE ST
D(LNKREDIT)	-0.011179		0.001796	-5.12E-05
D(LNJUB)		-0.002745	0.008023	-0.002415
D(LNINVESTASI )		-0.013415	-0.188429	-0.022510
D(CREDITINTE REST)		-0.067014	0.088002	-0.154994

1 Cointegrating Equation(s):      Log likelihood      216.2725

Normalized cointegrating coefficients (standard error in parentheses)

	LNKREDIT	LNJUB	LNINVESTASI	CREDITINTERE ST
	1.000000	-0.848960 (0.07705)	0.078518 (0.02176)	0.216644 (0.03442)

Adjustment coefficients (standard error in parentheses)

D(LNKREDIT)	-0.140091 (0.02872)			
D(LNJUB)		-0.034400 (0.04492)		
D(LNINVESTASI )		-0.168109 (0.69765)		
D(CREDITINTE REST)		-0.839806 (0.85015)		

2 Cointegrating Equation(s):      Log likelihood      226.9320

Normalized cointegrating coefficients (standard error in parentheses)

	LNKREDIT	LNJUB	LNINVESTASI	CREDITINTERE ST
	1.000000	0.000000	0.146637 (0.05681)	0.522032 (0.04125)
	0.000000	1.000000	0.080238 (0.04638)	0.359720 (0.03367)

Adjustment coefficients (standard error in parentheses)

D(LNKREDIT)	-0.102502 (0.05547)		0.065703 (0.07160)	
D(LNJUB)		0.133469 (0.08178)	-0.208512 (0.10556)	
D(LNINVESTASI )		-4.110941 (1.14700)	5.726094 (1.48056)	
D(CREDITINTE REST)		1.001617 (1.61946)	-1.894646 (2.09041)	

3 Cointegrating Equation(s):      Log likelihood      230.8357

Normalized cointegrating coefficients (standard error in parentheses)

	LNKREDIT	LNJUB	LNINVESTASI	CREDITINTEREST
LNKREDIT	1.000000	0.000000	0.000000	0.381972 (0.04512)
LNJUB	0.000000	1.000000	0.000000	0.283081 (0.03276)
LNINVESTASI	0.000000	0.000000	1.000000	0.955146 (0.20233)

Adjustment coefficients (standard error in parentheses)

	D(LNKREDIT)	D(LNJUB)	D(LNINVESTASI)	D(CREDITINTEREST)
D(LNKREDIT)	-0.101125 (0.08257)	0.063863 (0.10862)	-0.009803 (0.00336)	
D(LNJUB)	0.198416 (0.12094)	-0.295245 (0.15909)	0.000763 (0.00492)	
D(LNINVESTASI)	-3.505542 (1.70251)	4.917620 (2.23963)	-0.162733 (0.06932)	
D(CREDITINTEREST)	5.170120 (2.24049)	-7.461427 (2.94733)	-0.138494 (0.09123)	

### C. LAG LENGTH

VAR Lag Order Selection Criteria

Endogenous variables: D(LNKREDIT) D(CREDITINTEREST) D(LNINVESTASI) D(LNJUB)

Exogenous variables: C

Date: 06/30/18 Time: 00:45

Sample: 2005Q1 2016Q4

Included observations: 46

Lag	LogL	LR	FPE	AIC	SC	HQ
0	166.9307	NA	9.85e-09	-7.083945	-6.924933	-7.024378
1	199.6159	58.26494*	4.79e-09*	-7.809389*	-7.014327*	-7.511554*

\* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

### D. VAR ESTIMATION

Vector Autoregression Estimates

Date: 06/30/18 Time: 00:44

Sample (adjusted): 2005Q3 2016Q4



Included observations: 46 after adjustments  
Standard errors in ( ) & t-statistics in [ ]

	D(LNKREDIT)	D(CREDITINTE REST)	D(LNINVESTAS I)	D(LNJUB)
D(LNKREDIT(-1))	0.811991 (0.15206) [ 5.33989]	10.10794 (3.60744) [ 2.80197]	3.219258 (2.92697) [ 1.09986]	0.509300 (0.18971) [ 2.68457]
D(CREDITINTEREST(-1))	-0.016649 (0.00632) [-2.63456]	0.094914 (0.14992) [ 0.63310]	0.278725 (0.12164) [ 2.29139]	-0.002102 (0.00788) [-0.26665]
D(LNINVESTASI(-1))	-0.002810 (0.00753) [-0.37310]	-0.315558 (0.17865) [-1.76637]	0.026733 (0.14495) [ 0.18443]	-0.003330 (0.00940) [-0.35440]
D(LNJUB(-1))	-0.882768 (0.15920) [-5.54490]	-7.634482 (3.77689) [-2.02137]	-1.065855 (3.06445) [-0.34781]	-0.822463 (0.19862) [-4.14079]
C	0.035931 (0.00552) [ 6.51141]	-0.228336 (0.13091) [-1.74421]	-0.094056 (0.10622) [-0.88551]	0.038804 (0.00688) [ 5.63641]
<b>3</b>				
R-squared	0.552022	0.200379	0.175668	0.327872
Adj. R-squared	0.508317	0.122367	0.095246	0.262298
Sum sq. resids	0.015413	8.674706	5.710741	0.023991
S.E. equation	0.019389	0.459976	0.373211	0.024190
F-statistic	12.63059	2.568572	2.184314	5.000069
Log likelihood	118.7558	-26.90188	17.28644	108.5791
Akaike AIC	-4.945906	1.387038	0.968976	-4.503439
Schwarz SC	-4.747141	1.585804	1.167741	-4.304673
Mean dependent	0.042352	-0.049928	-0.004360	0.033463
S.D. dependent	0.027651	0.490997	0.392364	0.028164
<b>13</b>				
Determinant resid covariance (dof adj.)		3.17E-09		
Determinant resid covariance		2.00E-09		
Log likelihood		199.6159		
Akaike information criterion		-7.809389		
Schwarz criterion		-7.014327		

# Market Structure and Bank-Lending Channel during the Consolidation Period

---

## ORIGINALITY REPORT

---

<b>14%</b>	<b>11%</b>	<b>4%</b>	<b>9%</b>
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

---

## PRIMARY SOURCES

---

<b>1</b>	<b>prp.hec.gov.pk</b> Internet Source	<b>2%</b>
<b>2</b>	<b>isonewengland.com</b> Internet Source	<b>1%</b>
<b>3</b>	<b>cemla.org</b> Internet Source	<b>1%</b>
<b>4</b>	<b>Submitted to iGroup</b> Student Paper	<b>1%</b>
<b>5</b>	<b>Submitted to Universiteit Maastricht</b> Student Paper	<b>1%</b>
<b>6</b>	<b>www.eea-esem.com</b> Internet Source	<b>1%</b>
<b>7</b>	<b>Helen Louri, Petros M. Migiakis. "Bank lending margins in the euro area: Funding conditions, fragmentation and ECB's policies", Review of Financial Economics, 2019</b> Publication	<b>1%</b>

---

Submitted to Universitatea Danubius din Galati

8	Student Paper	1%
9	<a href="http://www.slacalek.com">www.slacalek.com</a> Internet Source	1%
10	Submitted to University of Hong Kong Student Paper	1%
11	<a href="http://www.emeraldinsight.com">www.emeraldinsight.com</a> Internet Source	1%
12	<a href="http://sloap.org">sloap.org</a> Internet Source	1%
13	<a href="http://www.caf.wvu.edu">www.caf.wvu.edu</a> Internet Source	<1%
14	Adams, R.M.. "Market structure and the pass-through of the federal funds rate", Journal of Banking and Finance, 201105 Publication	<1%
15	Submitted to Assumption University Student Paper	<1%
16	Submitted to University of Kent at Canterbury Student Paper	<1%
17	<a href="http://wkyes.blogspot.com">wkyes.blogspot.com</a> Internet Source	<1%
18	<a href="http://jurnalekis.blogspot.com">jurnalekis.blogspot.com</a> Internet Source	<1%

19

Juda Agung. "FINANCIAL DEREGULATION AND THE BANK LENDING CHANNEL IN DEVELOPING COUNTRIES: THE CASE OF INDONESIA", Buletin Ekonomi Moneter dan Perbankan, 2003

Publication

<1%

20

Submitted to Osun State University

Student Paper

<1%

21

Submitted to University of Southampton

Student Paper

<1%

22

Leo De Haan, Elmer Sterken. "The impact of monetary policy on the financing behaviour of firms in the Euro area and the UK", The European Journal of Finance, 2006

Publication

<1%

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off

LEMBAR  
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW  
KARYA ILMIAH : **PROSIDING** \*

Judul Karya Ilmiah (paper) : Market Structure and Bank Lending Channel during the Consolidation Period  
 Jumlah Penulis : 3 Orang (Siti Aisyah TR, Tri Mulyaningsih, Malik Cahyadin)  
 Status Pengusul : Penulis pertama / penulis ke / penulis korespondensi\*\*  
 Identitas Prosiding : a. Nama Prosiding : **14th IRSA International Conference**  
 b. ISBN/ISSN : **2654 – 3850**  
 c. Tahun Terbit, Tempat Pelaksanaan : **23 – 24 Juli 2018, Solo**  
 d. Penerbit/organiser : **FEB Universitas Sebelas Maret**  
 e. Alamat repository PT/web prosiding : <https://repository.feb.uns.ac.id/lihatpdf.php?lokasi=publikasi&kode=778>  
 f. Terindeks di (jika ada) :

Kategori Publikasi Makalah :  Prosiding Forum Ilmiah Internasional .....  
 (beri ~ pada kategori yang tepat)  Prosiding Forum Ilmiah Nasional .....

Hasil Penilaian Peer Review :

Komponen Yang Dinilai	Nilai Maksimal Prosiding 15		Nilai Akhir Yang Diperoleh
	Internasional <input type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi paper (10%)	1,5		1,35
b. Ruang lingkup dan kedalaman pembahasan (30%)	4,5		3,60
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	4,5		3,60
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	4,5		3,40
<b>Total = (100%)</b>	<b>15</b>		<b>11,95</b>
<b>Nilai Pengusul = 60% x 11,95 = 7,17 (Penulis Pertama)</b>			

**Catatan Penilaian artikel oleh Reviewer :**

Kelengkapan dan kesesuaian unsur isi artikel : Paper ini memenuhi semua unsur yang seharusnya ada dalam sebuah paper, mencakup latar belakang, perumusan masalah, review literatur, metodologi, hasil analisis, kesimpulan dan referensi.

a. Ruang lingkup dan kedalaman pembahasan : Paper ini meneliti lebih lanjut mengenai **peranan struktur pasar** terhadap kapasitas pinjaman bank di industri perbankan di Indonesia. Studi ini **penting bagi pemerintah** dalam menetapkan kebijakan terkait industri perbankan di Indonesia.

b. Kecukupan dan pemutakhiran data/informasi dan metodologi : Paper ini sudah memiliki kecukupan dan juga menggunakan data dan metodologi yang mutakhir. Analisis dilakukan dengan **sangat baik** menggunakan persamaan simultan. Studi ini **penting bagi pemerintah** dalam menetapkan kebijakan terkait industry perbankan di Indonesia.

c. Kelengkapan unsur dan kualitas terbitan : Prosiding ini diterbitkan oleh Indonesian Regional Science Association (IRSA) Committee yang merupakan Konferensi para ilmuwan yang memiliki keahlian dan minat pada bidang ilmu pengembangan regional/wilayah dari berbagai multidisiplin, khususnya Ekonomi Regional. Konferensi IRSA dikelola oleh Organisasi Akademisi Indonesia dan secara aktif mempromosikan dan melakukan riset antar wilayah negara. Konferensi IRSA diselenggarakan secara rutin setiap tahun dengan Perguruan Tinggi di Indonesia sebagai penyelenggara konferensi secara bergantian. Kualitas terbitan sudah sesuai dengan ketentuan sebuah konferensi.

d. Indikasi Plagiat : Tidak ada indikasi plagiasi, ditunjukkan dengan rendahnya hasil uji similarity (terlampir)

e. Kesesuaian bidang ilmu : sangat sesuai dengan bidang ilmu penulis, dimana paper ini membahas kajian bidang Ekonomi Makroekonomi.

Surakarta, ..... 07 APR 2020

Reviewer

**Prof. Dr. Yunastiti Purwaningsih, MP**  
**NIP. 195906131984032001**

Jabatan : Guru Besar  
 Pangkat, Gol Ruang : Pembina Utama Muda/IV D  
 Unit Kerja : FEB UNS  
 Bidang Ilmu : Ekonomi Pembangunan

\*Dinilai oleh dua Reviewer secara terpisah

\*\*Coret yang tidak perlu

LEMBAR  
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*  
KARYA ILMIAH : **PROSIDING** \*

Judul Karya Ilmiah (paper) : Market Structure and Bank Lending Channel during the Consolidation Period  
 Jumlah Penulis : 3 Orang (Siti Aisyah TR, Tri Mulyaningsih, Malik Cahyadin)  
 Status Pengusul : Penulis pertama / ~~penulis ke~~ / ~~penulis korespondensi~~ \*\*  
 Identitas Prosiding : a. Nama Prosiding : 14th IRSA International Conference  
 b. ISBN/ISSN : 2654 – 3850  
 c. Tahun Terbit, Tempat Pelaksanaan : 23 – 24 Juli 2018, Solo  
 d. Penerbit/organiser : FEB Universitas Sebelas Maret  
 e. Alamat repository PT/web prosiding : <https://repository.feb.uns.ac.id/lihatpdf.php?lokasi=publikasi&kode=778>  
 f. Terindeks di (jika ada) :

Kategori Publikasi Makalah :  Prosiding Forum Ilmiah Internasional .....  
 (beri ~ pada kategori yang tepat)  Prosiding Forum Ilmiah Nasional .....

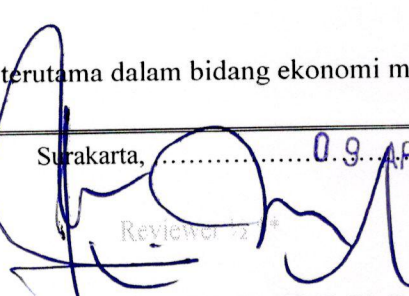
Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Prosiding 15		Nilai Akhir Yang Diperoleh
	Internasional <input type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi paper (10%)	1.5		1,25
b. Ruang lingkup dan kedalaman pembahasan (30%)	4.5		3,55
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	4.5		3,65
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	4.5		3,55
<b>Total = (100%)</b>	<b>15</b>		<b>12,00</b>
<b>Nilai Pengusul = 60% x 12,00 = 7,20 (Penulis Pertama)</b>			

**Catatan Penilaian artikel oleh Reviewer :**

- a. Kelengkapan dan kesesuaian unsur isi artikel : Paper ini telah mencukupi kelengkapan unsur yang terdiri latar belakang, perumusan masalah, kajian pustaka, metodologi, hasil dan analisis. Namun ada bagian yang belum terelaborasi yakni hasil dan diskusi, serta ada bagian yang belum terisi yakni kesimpulan,
- b. Ruang lingkup dan kedalaman pembahasan : Studi ini mencari pola hubungan investasi dan jumlah uang beredar sebagai proxy dari stuktur pasar dan jalur kredit (lending channel) yang terdiri atas total kredit dan suku bunga kredit, dengan menggunakan metode VAR. Hasil umum adalah bahwa stuktur pasar berpengaruh terhadap jalur kredit dalam mekanisme transmisi kebijakan moneter.
- c. Kecukupan dan pemutakhiran data/informasi dan metodologi : Secara umum paper ini telah mencukupi baik dari sudut data dan metodologi. Metode yang dipergunakan adalah VAR dimana semua variabel dianggap sebagai variabel endogen.
- d. Kelengkapan unsur dan kualitas terbitan : Konferens Internasional yang diikuti merupakan forum yang relative berkualitas, sementara itu kualitas terbitan sudah sesuai dengan ketentuan konferensi.
- e. Indikasi plagiat: Tidak ada indikasi plagiarism
- f. Kesesuaian bidang ilmu: Sangat sesuai bidang ekonomi terutama dalam bidang ekonomi moneter.

Surakarta, ..... 09 APR 2020



**Lukman Hakim, SE., M.Si., Ph.D**  
 NIR 196805182003121002  
 Jabatan : Lektor Kepala  
 Pangkat, Gol Ruang : Pembina/IVA  
 Unit Kerja : FEB UNS  
 Bidang Ilmu : Ekonomi Pembangunan

\*Dinilai oleh dua Reviewer secara terpisah  
 \*\*Coret yang tidak perlu