# Banking Development, Agriculture and Manufacturing Industry Sector in Economic Growth in Indonesia: Do They Influence?

Henny Medyawati, Muhammad Yunanto, and Gunadarma University

***Abstract*—Whether financial structure influences economic growth is still considered a crucial policy issue. The aims of this research are to analyze the influence of banking development indicators, agriculture sector and manufacturing industry sector on economic growth in Indonesia and to examine the relationships between banking development and economic growth. VAR, a time-series econometric model used in this study, estimating three banking indicators that are assets, credits and third party fund, economic growth average per capita at constant price 2000 and two variables of economic growth in agriculture and manufacturing industry. Two dummy variabels are also implemented in VAR model, they are monetary crisis and implementation of Arsitektur Perbankan Indonesia (API) or Indonesia Banking Architecture. Based on the two-stage data processing, the research reveals empirical evidence that banking development, agriculture sector and manufacturing industry sector affects the economic growth although the percentage of the contribution are relatively small.**

***Index Terms*—banking, agriculture sector, industrial sector.**

## I. Introduction

Whether financial structure influences economic growth is still considered a crucial policy issue. The relationship between financial structure and economic development can be examined on the basis of competing theories of financial structure. These are: the bank-based, the market-based, the financial services and the law and finance. The bank-based theory emphasizes the positive role of banks in development and growth, and, also, stresses the shortcomings of market-based financial systems. It argues that banks can finance development more effectively than markets in developing economies, and, in the case of state-owned banks, market failures can be overcome and allocation of savings can be undertaken strategically [12]. By contrast, the market-based theory highlights the advantages of well-functioning markets in promoting successful economic performance, and stresses the problems of bank-based financial systems. The third theory, the financial-services theory stresses the key financial services provided by financial systems[10]. Financial services are crucial to new firm creation, industrial expansion and economic growth. This theory is actually consistent with both the bank-based and the marketbased views. Finally, the law and finance theory[9]. It maintains that the role of the legal system in creating a growth-promotingfinancial sector, with legal rights and enforcement mechanisms, facilitates both markets and intermediaries. It is, thereby, argued that this is by far a better way of studying financial systems rather than concentrating on bank-based or market-based systems.

Banking industry in Indonesia growth after Banking Deregulation at 1988, the impact appears when Central Bank of Indonesia made a deregulation called Pakto 88 which was about facilitating opening a new bank and branch office. This was a positif impact that workers at that time have a great chance to work at the bank.

Using both traditionally cross-section, instrumental variable procedures and recent dynamic panel techniques, Levine, Loayza and Beck [11] find that the exogenous component of financial intermediary development is positively with economic growth. Also the data show that cross country differences in legal and accounting systems help account for differences in financial development.

Kar and Pentecost [7] used five alternative proxies for financial development and Granger causality tests applied the cointegration and vector error correction methodology (VECM). The empirical results show that the direction of causality between financial development and economic growth in Turkey is sensitive to the choice of proxy used for financial development.

Deepening financial development and rapid economic growth in China have been accompanied by widening income disparity between the coastal and inland regions. By employing pane dataset for 29 Chinese provinces over the period of 1990-2001 and applying the Generalized Method of Moment (GMM) techniques, the empirical results show that financial development significantly promotes economic growth in coastal regions but not in the inland regions; the weak finance-growth nexus in inland provinces may aggravate China's regional disparities [8].

Using time series data from 1960-2001, the empirical evidence suggests that financial liberalization, through removing the repressionist policy, has a favorable effect in stimulating financial sector development. Financial depth and economic development are positively related; but contrary to the conventional findings, the results support Robinson's view that output growth leads to higher financial depth in the long-run [1]. The results show that although financial sector reforms have enlarge the financial systems, the policy changes do not appear to have led to higher long run growth.

Manuscript received July 3, 2011; revised July 31, 2011.

H. M. Lecturer at Faculty of Computer Science and Information Technology, and Faculty of Economics, Gunadarma University, Depok, Indonesia., member of IEDRC (e-mail: hennymedya@ yahoo.co.id).

M. Y. Lecturer at Faculty of Economics, Gunadarma University, Depok, Indonesia, member of IEDRC (e-mail: m_yunan@yahoo.com).

Nasrudin[15] investigate financial development topics related to economic growth with regional approach and adopting full Levine's model, replace the measured of sample unit from 71 country in the world with provinces in Indonesia. Empirical results show that financial indicator has a positif relationship with economic growth are assets and the total of bank branch office. Loan and third party fund suppose as power of bank intermediation show a negative sign. The aims of this research are to analyze the lag from the model to examine the role of banking development, agriculture sector and manufacturing industry sector in economic growth in Indonesia and to analyze the percentage of the contribution of the three indicators of banking development, agriculture sector and manufacturing industry sector to economic growth.

## II. Model, Data and Methodology

### A. Model

The econometric model used in this paper is adopted model from Levine, Loayza and Beck [11], which is also adopted by Nasrudin [15]. Adopted common equation as follows:

$$g_t = \alpha + \beta\,[financial]_t + \gamma[conditioningset]_t + \varepsilon_t$$

where gt equals real per capita Gross Domestic Product (GDP) growth at constant price 2000, financial equals either assets, credits, and third party funds, and conditioning set represents the other determinants of growth such as agriculture, and manufacturing industry sector. The common equation used in this paper adopted from model which is used by Nasrudin [15] and Levine, Loayza and Beck [11] with modification.

### B. Data

Data used in this paper are time series data in the period of 1988 to 2008 quaterly. The reason for the year 1988 is that in 1988 Central Bank of Indonesia issued policy deregulation Pakto 88 and the beginning of booming of new bank. The source of the data collected from Central Bank of Indonesia (BI) publication such as Indonesia Economic and Financial Statistics (IEFS or SEKI), Indonesia Central Bureau of Statistics (CBS)[5]. Financial data are including total of saving deposits, demand deposits, time deposit and credits (all kind of banks like common bank, rural bank and sharia bank), the total assets all kind of bank. Proxies for economic growth are GDP growth per capita, contribution of agriculture sector to GDP, manufacturing industry to GDP (all variables at constant price 2000). The financial indicator used in this paper refers to standard of Directorate of Research and Banking Management on banking main indicator section Central Bank of Indonesia.

### C. Methodology

Often found that economic theory was not good enough to specify the dynamic relationship among variables. Sometimes estimation and inference process become complicated because the endogen variable on both side. Vector Autoregression (VAR) method by Sims then appear as a solution to this problem with non structural approach [16]. VAR model consist of 6 macro economics variables and two dummy variables can be written as follow:

$$Vljgdp_t = \beta_1 + \sum_{i=1}^{n}\beta_{1i} Vljgdp_{t-i} + \sum_{i=0}^{n}\beta_{2i} Vaset_{t-i} + \sum_{i=0}^{n}\beta_{3i} Vkredit_{t-i} + \sum_{i=0}^{n}\beta_{4i} Vdana_{t-i} + \sum_{i=0}^{n}\beta_{5i} Vtani_{t-i} + \sum_{i=0}^{n}\beta_{6i} Vindus_{t-i} + D_1 + D_2 + \varepsilon_1$$

$$Vaset_t = \beta_2 + \sum_{i=0}^{n}\beta_{7i} Vljgdp_{t-i} + \sum_{i=1}^{n}\beta_{8i} Vaset_{t-i} + \sum_{i=0}^{n}\beta_{9i} Vkredit_{t-i} + \sum_{i=0}^{n}\beta_{10i} Vdana_{t-i} + \sum_{i=0}^{n}\beta_{11i} Vtani_{t-i} + \sum_{i=0}^{n}\beta_{12i} Vindus_{t-i} + D_1 + D_2 + \varepsilon_2$$

Same formulas are for Vkredit, Vdana, Vtani, Vindus.

Econometrics model in this paper is a VAR model divided into two stages processing data:

(a) VAR model with 6 variables without dummy variable that are economic growth and three banking indicators that are assets, loans and third party funds, and also 2 macro economics indicators in agriculture, manufacturing industry; and

(b) VAR model with 6 variables with dummy variable that are economic growth, assets, loans, third party funds, agriculture, industry, and two dummy variables are, monetary crisis 1997, and implementation of API in 2004.

## III. Result

For preeliminary study, VAR model without agriculture variables and manufacturing industry variable have been evaluated and the optimal lag obtained is 10 or 2 year and 6 month. The optimal lag length obtain from VAR Model with 6 variabels without dummy variable is 9 or 2 years 3 month. The impact can be said quite slowly. The result comes into alignment with theoretical study taht economic growth not only influence by banking industries but also by another factors, that are natural resources proxy by agriculture and manufacturing industry sector. The optimal lag length obtain from VAR model with 6 variables with dummy variable is 7 or 1 years 3 month. The monetary crisis in 1997 and the implementation of API have the impact to economic growth. The shorter the lag, it can be concluded that the impact of these variables on economic growth is relatively fast.

*a. Impulse Response Analysis of Economic Growth With Dummy Variable*

Analysis of economic growth in response to the shock of assets, loans and funds, agriculture, industrial sector and two dummy variables is carried out through one of the properties of the VAR that is Impulse Response Function. The following analysis reviews the three indicators of banking shocks, two variables of economic growth and two dummy variables.

The shock of assets variable has an impact on economic growth in first quarter. In general this can be explained that the bank's assets consist of buildings, computer equipment, in the early stages cannot be used optimally for the bank operational. At a later period as shown in Fig. 1 is the second quarter, economic growth up until the third quarter, then continued to decline until the fourth quarter. This condition can occur because the bank assets can be operated optimally

and reached its peak in the third period. Economic growth gave a positive response to credit shocks in the second quarter, causing the next shocks to the decline in economic growth in the third.

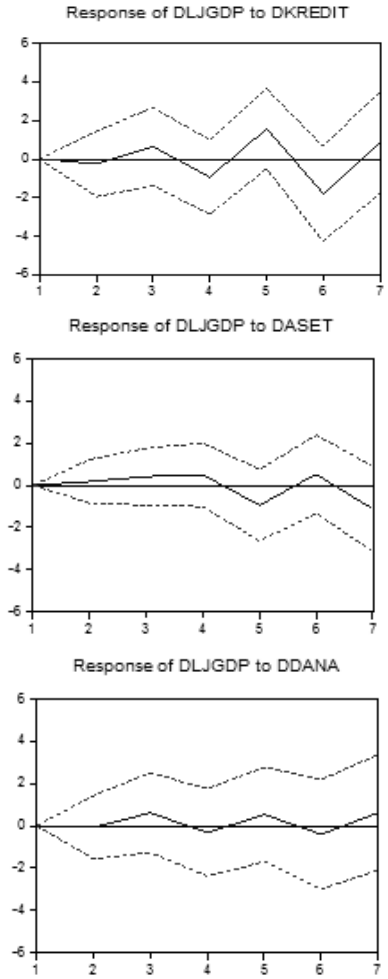


Fig. 1. Economic Growth Response of Shock from the Three Indicators of Banking

Positive response is also show by the shock of agriculture and industry variables in the second quarter. In Fig. 1 show that the line response to the shocks of economic growth in the agricultural variables rose slightly in the second quarter, then fell in mid-second quarter and continued to decline until the fourth quarter. Positive response is also shown by the shock of agriculture and manufacturing industry variables in the second quarter. The shock of that variable is also positive to economic growth. This is indicated by a line going up from the first quarter period until the fourth quarter in Fig. 2 as follows. The condition can be concluded that the industrial sector able to move the economic growth, slowly but increasing.

The same positive response of economic growth variables, show that on the second quarter the role of both agricultural and manufacturing industry sectors can drive economic growth for about 6 months. This can be explained that one of the manufacturing industry sub-sector non-oil industry is comprised of industries including food, beverages, textiles, paper and printed material impact growing rapidly and providing employment opportunities. Increased demand for products of finished goods or semi-finished both domestically and internationally has led the manufacturing industry sector to be ranked first in the formation of GDP since the late 90s [4]. Another request for an increase occurred in transportation equipment industry, cement industry and chemical industry.

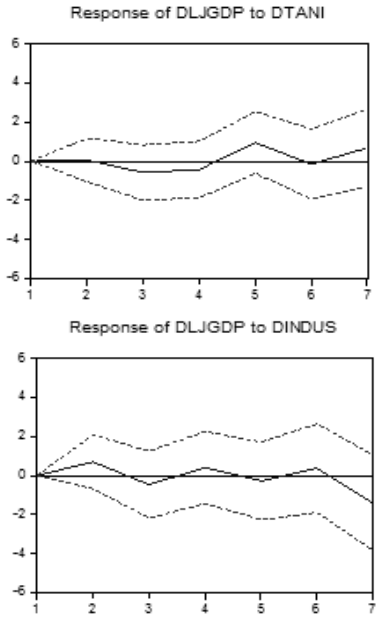


Fig. 2. The Response of Economic Growth to the Shock of Agriculture, and Manufacturing Industry

*b. Economic Growth Response to the Shock of Monetary Crisis Dummy Variable and API Variable*

The analysis of the monetary crisis shock dummy variables as shown in Fig. 3 below, shows that up to second quarter period, the economic growth become decrease. This condition is associated with loss of public confidence in national banking. The economic crisis that hit Indonesia has brought down the banking performance at zero point. The peak of the crisis is the revocation of business licenses of 16 banks insolvent category [2]. The next process is the establishment of IBRA as one item in a series of Letter of Intent (LOI) between the Government of Indonesia to the IMF, with the first LOI was signed on 1 November 1997 [5]. The next IMF loan agreed to provide standby (stand-by credit) amounting to U.S. $ 10 billion. Other assistance also came from the World Bank and ADB, each with U.S. $ 4.5 billion and U.S. $ 3.5 billion [2]. This is done to save the banking industries in Indonesia. This condition is mainly associated with the loss of public confidence in the national banking system. IBRA formation is considered as the beginning of the process of rehabilitation of the banking industry remained liquidation casualties with 10 banks, four banks recapitalized [6]. In addition, in this period occurred a sharp depreciation in the capital of the bank caused by a fall in asset quality, the banks rush and the negative spread. As a result, the supply of credit falls drastically known the credit crunch.

The same thing also happened with the implementation of the API starting early in 2004. Economic growth in the early period did not give a positive response, even economic growth tends to slow and only moved up after the fourth quarter. This condition describes the recovery process marked by the banking implementation of the precautionary principle and the closure of the banking consolidation of two banks in April 2004 and self-Liquidation of the bank (ING

Bank) and the merger of three banks (Bank Pikko, Danpac Bank, Bank CIC to Century Bank) [3]. Economic conditions that tend to not experience these movements, due to the implementation of one program in the API is the first pillar that contains the strengthening of national banking structures. The program aims to strengthen the bank's capital both conventional and Islamic banks in order to increase the bank's ability to manage business and risks, developing information technology, and improve its business scale in order to support capacity building of banking credit growth. As a result the bank focused on the addition of new capital and mergers with other banks to achieve the minimum capital requirement set BI.

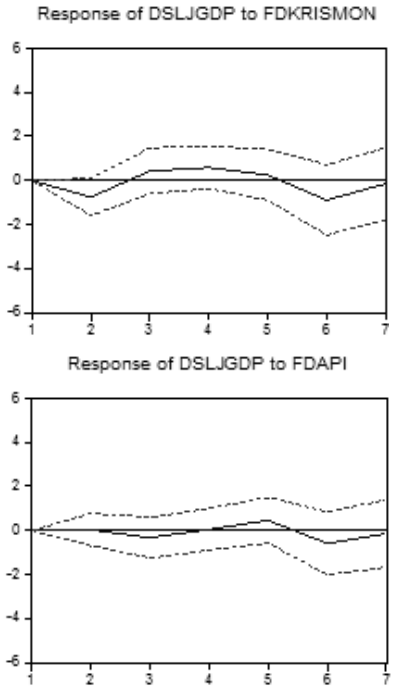


Fig. 3. Economic Growth Response to The Shock of Monetary Crisis and Implementation of API

*C. Variance Decomposition Analysis with Dummy Variable*

The result of variance decomposition shown that the three indicators of banking assets, loans and third party funds to contribute to economic growth below 5%. The highest contribution is shown by the credit variables in the 4th quarter of 0.896%, while the asset variables in the same period of 0.37% and 2.46% of funds only. The sharp increasing of the percentage contribution of credit which nearly doubled in the quarter-period, does not occur in third party funds and the assets variable. This indicates that credit is channeled only a small portion coming from third-party funds.

TABLE.1 VARIANCE DECOMPOSITION OF ASET, LOANS AND THIRD PARTY FUND TO ECONOMIC GROWTH

| Period | DLGDP | DASET | DKREDIT | DDANA |
|---|---|---|---|---|
| 1 | 100.000 | 0.00000 | 0.000000 | 0.00000 |
| 2 | 95.77831 | 0.115885 | 0.125567 | 0.115885 |
| 3 | 89.47590 | 0.626703 | 2.379791 | 0.626703 |
| 4 | 78.35832 | 1.233385 | 3.602881 | 1.233385 |
| 5 | 62.83359 | 2.689419 | 5.377739 | 2.689419 |
| 6 | 55.32437 | 2.798691 | 7.133501 | 2.798691 |
| 7 | 46.07849 | 4.124613 | 7.143628 | 4.124613 |

From the table 1 above can be explain that in the period of the first three quarters of funds contributing funds are relatively small third party that is below 0.4%. This may explain the increase in third party funds do not directly affect the rate of economic growth. Third-party funds would have a significant impact in the form of lending to people.

TABLE. 2 VARIANCE DECOMPOSITION OF AGRICULTURE AND MANUFACTURING INDUSTRY TO ECONOMIC GROWTH

| Period | S.E | DLGDP | DTANI | DINDUS |
|---|---|---|---|---|
| 1 | 3.926761 | 100.000 | 0.000000 | 0.000000 |
| 2 | 5.137248 | 95.77831 | 0.125567 | 1.794338 |
| 3 | 5.574226 | 89.47590 | 2.379791 | 2.257546 |
| 4 | 5.965585 | 78.35832 | 3.602881 | 2.408740 |
| 5 | 7.100601 | 62.83359 | 5.377739 | 1.866606 |
| 6 | 7.623724 | 55.32437 | 7.133501 | 1.852471 |
| 7 | 8.411332 | 46.07849 | 7.143628 | 4.360586 |

The agriculture's contribution to the first two quarters have not demonstrated an adequate percentage as shown in Table 2 above. But in the fourth quarter to the fifth period it is showed substantial increases compared with other periods of 1.7%. Even in the sixth period experienced a slight decline of 0.34%, but increase again in the next period of nearly 0.2%

The following are the analysis of variance decomposition for the two dummy variables that, the monetary crisis in 1997 and API 2004 respectively to economic growth. Monetary crisis that hit Indonesia in 1997 was felt the impact from the liquidation of 16 banks in November. The impact of the closure of 16 banks namely the establishment of IBRA as an institution that seeks to save the banking industries in Indonesia[6]. IBRA formation is regarded as the beginning of the process of rehabilitation of the banking industry. This phenomenal event gives stronger impact on the Indonesian economy. The result show that the percentage contribution of monetary crisis variable to economic growth at the third quarter is still below 1%.

TABLE. 3 VARIANCE DECOMPOSITION OF DUMMY VARIABLE MONETARY CRISIS AND IMPLEMENTATION OF API

| Period | DLJGDP | FDKRISMON | FDAPI |
|---|---|---|---|
| 1 | 100.000 | 0.000000 | 0.000000 |
| 2 | 95.77831 | 0.000553 | 2.036788 |
| 3 | 89.47590 | 0.053041 | 3.707946 |
| 4 | 78.35832 | 7.319732 | 3.926580 |
| 5 | 62.83359 | 14.37273 | 6.299595 |
| 6 | 55.32437 | 18.02796 | 5.731363 |
| 7 | 46.07849 | 24.83225 | 4.997967 |

API which was released in 2004 is a basic framework of the Indonesian banking system that is comprehensive and provides direction, shape and structure of the banking industry to create a stable financial system in order to help drive national economic growth [3]. The first pillar is a strong banking structure, the second pillar is an effective regulatory system, the third pillar is a system of independent monitoring and effective, is the fourth pillar of a strong banking industry, the fifth pillar is adequate supporting infrastructure, and is the sixth pillar of consumer protection. Analysis of API dummy variable contribution to economic growth is the same general analysis based on impulse response. The percentage contribution of zero per cent in the first quarter period can be explained that the implementation of one program in the API is the first pillar of strengthening the national banking structure to make the bank focused on strengthening the bank's capital [14]. Increasing the minimum capital

requirements for conventional banks and sharia banks (including BPD) from 80 billion dollars targeted implementation in 2007 to 100 billion rupiah in 2010, tend to make the bank refrained from too expansionary in disbursing credit [13].

Reviews from the results of the impulse response and variance decomposition states that the role of banks to economic growth is relatively small. The results of variance decomposition analysis shows that the overall average percentage contribution of the credit variable reached 12.61% of economic growth, the variable assets reached 10.7%, and variable funds reached 1.56%. This result is reasonable given that the Bank of Indonesia since 1991, when it first launched the policy regarding the procedures for assessment of bank soundness (CAMEL), banks more cautious in disbursing credit. The phenomenon of credit supply is known to decrease drastically with the term credit crunch, the imbalance of demand and credit supply, reflected in the low LDR since 1999, is clear evidence that recent years have occurred in the Indonesian banking disintermediation [13]-[14]. Whereas the main function of banks is as a financial intermediary institution. This serious problem has been a focus of Central Bank of Indonesia to be repaired immediately.

The ultimate goal of any economic study is to see the effects of an economic policy or to make a prediction about future economic variables. This study conducted simulations and analysis of one of the indicators of the banking namely credit, which theoretically and also through the study on previous research had an influence on economic growth.

The optimal lag obtained in the optimistic and pessimistic simulation is 7 quarter or one year nine months, which is the same as the lag optimal obtained by real data (VAR model with 6 economic variables with dummy variables). This can be explained that the increase in loan volume alone without being followed by increases in other sectors such as industry and agriculture would be felt heavily on the economy.

In the optimistic scenario it is assumed that the rate of economic growth is 6% which is in 1991 when Central Bank of Indonesia, for the first time liquidate a new bank that is the impact of PAKTO 88 policy, up to the monetary crisis started in about the third quarter of 1997. Loan increase in 25% a year, which means 6.25% per quarter, the other variables are not altered its data. In the pessimistic scenario assumed that

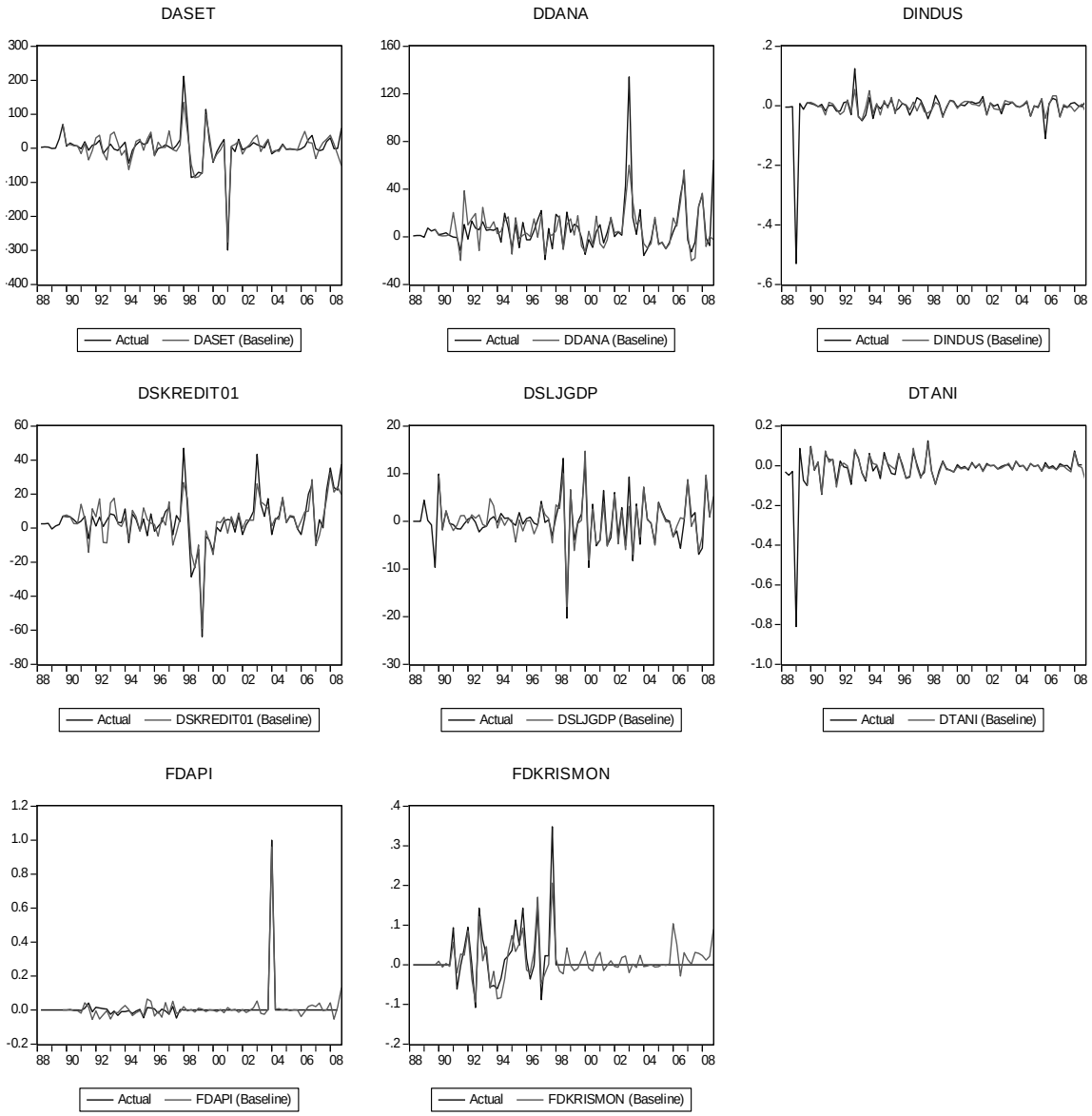


Fig. 4 Simulation Result

the rate of economic growth is 4%, loans increased by 15% a year, which means 3.75% per quarter. These figures are average figures which refer to the Economic Report published by Bank Indonesia and BPS. The results of data processing after the process of updating the data according to the scenario presented below.

The change does not affect the baseline data so that it looks coincide with the actual line of credit on variable in all periods as shown in Fig. 4. Based on the results in the picture above, the information obtained that the model has a fairly good accuracy between the actual data with the baseline on all variables. It can be concluded that this model can be used to make predictions.

The simulation results show that increasing the volume of credit not directly shorten the lag. Increased volume of credit must be balanced with the proper channeling, among others through BPR and sharia business units, to optimize the micro and small enterprises so the banking intermediary function can be run properly. This is in line with the agenda of the API that have been equipped with the targets on each of the six pillars that have been programmed. In other words, the API as a working agenda of Central Bank of Indonesia should be implemented consistently so that Indonesian banks can play their part in economic growth.

## I. Conclusion

1. Analysis of the lag obtained from the three VAR models, the agriculture and industry explained the role of banking, agriculture and industry to economic growth though the role relatively small.
2. Assets, loans and funds have contribution to economic growth, although the percentage is relatively small compared with other economic variables such as agricultural variable and industrial sectors. Analysis of the percentage contribution of the three banking indicators to economic growth show that banking disintermediation occurs.
3. The model in this study can be used to analyze the role of banks in economic growth. The role of banks as intermediary institutions to economic growth needs to be improved, Bank Indonesia needs more actively as an institution that can accelerate the recovery process of banking intermediation.

## Acknowledgment

We want to say thank you to Prof. Nopirin , Prof. Bambang Sutopo and also Dr. Budi Hermana for their correction and constructive comments to this paper.

## References

[1] Ang, James B. and Warwick J. McKibbin .2007. "Financial Liberalization, Financial Sector Development and Growth: Evidence From Malaysia", Journal of Development Economics, Vol. 84. pp. 215-233

[2] Bank Indonesia. 1998. Laporan Perekonomian Indonesia 1998. Bank Indonesia. Jakarta

[3] Bank Indonesia. 2004. Laporan Perekonomian Indonesia 2004. Bank Indonesia. Jakarta

[4] ____.2009."Arsitektur Perbankan Indonesia". http://www.bi.go.id/web/id/Perbankan/Arsitektur+Perbankan+Indonesia (accessed 1-09- 2009)

[5] BPS. 2009. Pendapatan Nasional Indonesia 2009. BPS. Jakarta

[6] Hermana, Budi. 2007."Peran Bank Indonesia Menuju Indonesia 2025:Prahara, Sengsara atau Nusantara Jaya?". Bank Indonesia Working Paper

[7] Kar, Muhsin and Eric J.Pentecost .2000. "Financial Development and Economic Growth in Turkey : Further Evidence on the Causality Issue". Loughborouh University. Economic Research Paper No. 0/27

[8] Liang, Zhicheng (2006). "Financial Development, Growth, and Regional Disparity in Post-Reform China", Research Paper No. 2006/90

[9] La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 1998. "Law and finance". Journal of Political Economy 106 (6), 1113–1155.

[10] Levine, Ross. 1997. "Financial Development and Economic Growth:Views and Agenda". Journal of Economic Literature. Vol XXXV. pp. 688-726

[11] Levine, Ross, Norman Loayza, and Thorsten Beck (2000). "Financial Intermediation and Growth :Causalities and Causes", Journal of Monetary Economics Vol. 46. pp. 31-77

[12] Luintel. Kul. B., Mosahid Khan, Philip Arestis and Konstatinos Theodoridis. 2008. "Financial Structure and Economic Growth". Journal of Development Economics 86, pp.181-200

[13] Medyawati, Henny and Muhammad Yunanto, "The Role of Banking Agriculture and Industrial Sector in Economic Growth in Indonesia," in Proc. International Conference on Economics and Business Information,Bangkok, 2011, pp. 8-16.

[14] Medyawati, Henny, Nopirin, Bambang Sutopo and Budi Hermana. 2010, The Role of Banking in Economic Growth in Indonesia. Proc. of International Conference on Business and Economics Research (ICBMR). University of Indonesia

[15] Nasrudin, Rus'an (2004). 'Perkembangan Perbankan Indonesia: Analisis Dampak terhadap Pertumbuhan Ekonomi Regional Indonesia dan Penyebab-penyebabnya dengan Data Panel 1983-1999'. Jurnal Ekonomi dan Pembangunan Indonesia Vol. 4 No. 1, pp. 140-150

[16] Widarjono, Agus (2007)."Ekonometrika Teori dan Aplikasi untuk ekonomi dan bisnis",Ekonisia. Yogyakarta

**Henny Medyawati,** a lecturer in Gunadarma University. Birth in Jakarta, May 18, 1970. Undergraduate Program in Computer Science, Master Program in Management, and completed the Doctoral Program in Economics at Gunadarma University, Depok, Indonesia, on March 5, 2010. Lecturer in Gunadarma University since 1993, teaching subject in Banking Information System, Electronic Banking, and Management.

She experience as an instructure in banking system application course, and attended in SAP course in Fundamental and Financial Module at Gunadarma University. As a lecturer, she also served in the head development laboratory at LEPMA in Gunadarma University (Management and Accounting Development Board). After attended the ICEBI 2011, she joint as member of IEDRC.

**Muhammad Yunanto,** a lecturer in Gunadarma University. Birth in Klaten, June 12, 1969. Undergraduate Program in Economics, Master Program in Management, and since 2007 Phd student majoring in Economics in Gunadarma University, Indonesia. Lecturer in Gunadarma University since 1993, teaching subject in Macro Economics, Strategic Management, and Managerial Economics.