Bank Restructuring and its Implication on Indonesian Macro Economy
and Agricultural Sector[1]

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Abstract

The impacts of bank restructuring on the Indonesian macro economy, and its various sectors, especially the agricultural industries, are assessed and analyzed using an Indonesian Forecasting Model. The model is more detailed sector-wise than existing Indonesian CGE models and incorporates flexibility to capture alternative assumptions regarding land and investment behavior. The impacts are assessed under several alternative settings including various scenarios on capital augmenting technical change and rate of return to capital on all industries. The failure of bank restructuring will have a bad impact on the Indonesian macroeconomic performance. It will reduce the GDP from both income side and expenditure side. The impact become worst if it will reduce the efficiency of using capital in all sector. The high effort of internal and external banking system should be done to make a successful of bank restructuring. The successful of bank restructuring will increase the output bigger than the failed of bank restructuring or will minimize the negative percentage change. Paddy is one example have a positive percentage change. The government policy is still needed to encourage banking sector to give a soft loan to the agricultural sector.

Key Word: Bank restructuring, CGE, agricultural and economic development

1. INTRODUCTION

1.1 Background

The economic and financial crisis that hit Indonesia in the mid 1997 causes the structural change of Indonesian macro economy. This can be seen from a decrease on the private role and an increase of government role (i.e. fiscal expansion). The impact of economic crisis on the banking sector is manifested in the form of bank collapses and the cost of bank restructuring. Total bank restructuring cost is estimated around 51% from GDP (Lindgren, *et al*, 2000), which is the biggest amount among the crisis countries.

While bank-restructuring cost is so high, the recovery is very slow. Up to September 2000, the credit to the real sector just Rp 240 billion. On the other hand, the government bonds are held by the bank was Rp 410 billion or around 45 % of total asset of banking sector (Sugema, 2000). Most of these bonds are illiquid and difficult to be converted into the loanable fund, which is ready to use in the real sector.

The slow progress of the bank restructuring impedes the economic recovery (Sugema, 2000). Indonesia is the slowest recovering economy with the growth rate at about the same level of the Philippines, which is below the Indonesian economic growth level before the economic crisis. Malaysia and Korea have the fastest growth among the Asian crisis countries and they are followed by Thailand.

The relatively slow growth has four important implications. Firstly, the cost of bank restructuring increased dramatically from around Rp 165 billion in 1999 (Cameron, 1999) to Rp. 700 billion in 2002. Meanwhile, the IBRA asset is predicted could not cover all the cost. Secondly, real sectors are difficult to get credit from the bank, even for the healthy firm, because the government bonds are illiquid. The low loan to deposit ratio is also caused by the low ability of bank to do the credit assessment. Most Bank only gives the credit to its group without any professional assessment.

Thirdly, even though the recovery sign is very strong, the sustainability of recovery is a big question. The Mexican case shows that the unfinished banking problem causes the repeatedly financial crisis (Tornell and Kruger, 1999). It implies that the unfinished bank restructuring is an unstable condition for the country, and there is a possibility to have another financial crisis in the future.

Fourthly, if the bank restructuring do not work well, the fiscal and monetary discipline is difficult to achieve (Rajan and Sugema, 1999). Part of the government bonds interest rate is floated with the reference to the central bank interest rate. Therefore, the monetary authority will not flexible to change the interest rate because it will influence the fiscal position and bank performance. The exchange rate stability also will be difficult to maintain. It means that the macroeconomic stability could not be achieved through the fiscal and monetary management.

On the other side, the macro economic growth stability is the pre-condition for the effectiveness of banking performance. Macroeconomic instability such as high interest and inflation rate, balance budget deficit, and exchange rate fluctuation can create the banking crisis (Edwards, 2000 and Eichengreen *et al*. 1998). It means, there are two

ways causality between macro economic conditions and good performance of banking sector.

In order to build the strong performance of banking sector, the portfolio credit among sectors is very important. The portfolio credit will influence the amount of output and job absorption of each sector, which is in aggregate, will influence the national income. There are two factors that the sectoral credit allocation will influence the bank performance and security, and macro economic performance.

Firstly, each sector has the unique risk and return characteristic, which is different in each sector. The different of its portfolio will impact the bank ability to create the economic profit and bank security from the macro economic instability. The bank credit has been allocated mostly to the non-tradable and non-agriculture sector, especially in the housing, manufacturing, and trading sector. These sectors are fragile in the economic crisis circumstances. On the other side, the credit allocation to the agricultural sector less than 7 per cent from the total bank credit (Table 1), even though the agricultural sector is a buffer to minimize the macro economic fluctuation during the economic crisis.

Secondly, the amount of capital stock in the sector is determined by credit availability, which contributes to the economic structure and income distribution. The big conglomerate has occupied the access of bank credit, which is the owner of the private bank. It will create the capital accumulation in the small part of society. In turn, the macro economic performance and portfolio-banking sector depend on the performance of these entrepreneurs. These circumstances will not encourage the economic stability and sustainability.

Table 1. Sectoral Share of Credit Allocation

	1995	1996	1997	1998	1999	2000
Total Credit (Rp.million)	234,611	292,921	378,134	487,426	225,133	241,913
Share (%)						
Agriculture	6.6	6.0	6.9	8.1	10.6	9.6
Mining	0.4	0.6	1.4	1.2	1.6	2.2
Manufacture	30.7	26.9	29.5	35.2	37.4	37.2
Sales	23.1	24.1	21.8	19.8	19.2	19.3
Services	28.4	31.3	30.0	28.5	19.2	17.7
Others	10.8	11.1	10.4	7.2	12.0	14.0

Source: Bank Indonesia (www.bi.go.id)

It is clear that the agricultural sector is in the marginal position in terms of credit availability even though the sector has an advantage, especially in facing the economic fluctuation. There is the government program credit such as *Kredit Usaha Tani* (a special credit program for agriculture) to subsidise the farmer. However, in many cases, it creates the moral hazard. So far, there is a study that dealing with bank system failure in Indonesia (McLeod, 2002). This paper describes comprehensively the collapse of

banking system and the government policies to deal with it. However, there are no such comprehensive studies to analyze the reallocation bank credit and bank restructuring, which will make the good viability of macro economic as well as to gain an equal income distribution. This study tries to analyse the impact of bank restructuring on the macro and micro economic indicators of Indonesian economy.

2.1 Objectives

The research objectives are to analyze the impact of bank restructuring on:

1. The macroeconomic variables such as GDP, consumption, investment, exports, imports an terms of trade.

2. The sectoral variables, such as output and capital account, especially in agricultural sector.

There are several scenarios will be used in order to analyzed the impact of bank restructuring, which are the capital augmenting technological change in banking sector as well as other sectors, and the change on rate of return on capital in each industry.

2. METHODOLOGY

The research is the on going research which tries to build the general equilibrium model that emphasized on the financial and banking sector. The first attempt to explore the impacts of bank restructuring is by using the Indonesian Forecasting Model (Oktaviani, 2000) with the adjustment of sector that more detail in agriculture and banking sector. The data is also updated from the previous database that is used in Oktaviani (2000). This section is primarily a short description of the flexibility of the Indonesian Forecasting Model and the data building.

2.1 Model

The Indonesian Forecasting model (Oktaviani, 2000) has a similar structure to the Australian ORANI-F model (Horridge *et al.*, 1993) except there is added flexibility in dealing with investment, drawing in particular on ideas used by Walmsley (1998). The Indonesian Forecasting Model also has the flexibility to capture land mobility among sectors in estate crops and food crops groups or among industries instead of fixing the land used in each industry.

Three alternative investment formulations are included in the Indonesian Forecasting Model: one based on the ORANI specification, one based on the ORANI-F specification and one based on Walmsley's (1998) specification. Slack variables are defined to allow removal of the unwanted versions from any particular simulation. In all three versions, it is assumed that riskless rates of return are the relevant ones in determining equilibrium. The Walmsley investment specification differs from the ORANI investment specification in that there is a given relationship between the ratio of current and expected future rates of return and the relative growth rates of capital; whereas in the latter specification, the relationship is between the ratio of current and

expected rate of return and the ratio of the level of expected and current capital. The Walmsley investment specification then gives a more general treatment of the long-run equilibrium condition because it allows the current and future rates of return in an industry to be equal even though the industry is growing. On the other hand, the ORANI-F investment specification assumes that the relative current rates of return in industries are related to the relative levels of capital stocks via a constant elasticity relationship. The detail of these three specifications is available in Oktaviani (2000).

The ORANI-F model as described by Horridge *et al.* (1993) assumes that land is specific to each industry. Land prices are established without any direct relationship. For the Indonesian model, particularly with a relatively disaggregated agricultural sector and with no multi-commodity industries, it is important that the model allow for land mobility between industries. Accordingly, the Indonesian Forecasting Model differs from ORANI-F through the inclusion of equations and variables that facilitate making alternative assumptions about land, namely that it is:

(i)   fully mobile between all industries (all land prices then change in proportion);
(ii)   fully mobile between industries within three defined sets of industries, namely estate crops and forestry, food crops and other industries;
(iii)   specific to an industry (land prices have no direct relationship one to another)

The constrained mobility assumption (case ii) is perhaps the most appropriate, especially for long run analysis. Because the study will analyze the impact of bank restructuring in the future years, for the first attempt, the ORANI type of investment is used in the study.

2.2 Data Base and Parameter Settings

The principal database required for the Indonesian Forecasting Model is the Input-Output Table of the Indonesian Economy 1995 and the Social Accounting Matrix 1995 as published by the Indonesian Central Bureau of Statistics. These tables are the latest table that available during the research. The Social Accounting Matrix is used as a complement of Input-Output Table to calculate the share of wage from each type of labour (professional, manager, operator and unskilled labour) and to calculate the share of return to land and return to capital. The Indonesian behavioural parameters used are based on various pieces of other research. Details of how to construct the database can be seen in the full report of the research. Actually, the Indonesian Forecasting model can be used to updated database. This method is used in Oktaviani (2000) to update the 1990 database to 1997 database. The simulation result using both databases shows that the result is not so much different. This study also tries to update 1995 database to 2000 database by using macroeconomic variables and total factor productivity change in each sector. The comparative statics simulation, which use both database also shows that there is not so much different on endogenous variable change. Therefore, this study uses the 1995 Input-Output Table and Social Accounting Matrix database.

The study uses 37 sectors, which are aggregated from 172 Input-output sectors. The agricultural sectors are chosen in more detail and the bank service is separated from services in this study. The sectors are: Paddy, Maize, Cassava, Root Crops, Beans, Soybean, Vegetable and Fruit, Rubber, Cane Sugar, Coconut, Oil Palm, Coffee, Tea, Other tree crops, other agriculture, Livestock, Forestry, Agricultural services, Oil and Gas, Mining, Livestock processing, Food Processing, Fish Processing, Tree crops processing, Rice, Wheat, Alcohol and Tobacco, Textile and leather, Wood product, Other manufacturing, Fertiliser and pesticide, oil and gas processing, Services, Building, Trading and transportation, and Bank Services.

3. RESULT

The study is on going research, which analyses the impact of bank restructuring in Indonesian economy. The part of the study, which is under development, includes the financial sector to the model in order to get more comprehensive impact of bank restructuring. In the time being, several scenarios will be analysed in the study by using the Indonesian Forecasting Model (Oktaviani, 2000),

Bank restructuring can be seen through the change on efficiency of using capital (capital augmenting technical change) of bank sector and every sector and the change on the rate of return on capital of each sector in the economy. There are six scenarios that will capture the success and failure of bank restructuring in Indonesia. As mentioned in the introduction, the bank recovery is very slow in the bank-restructuring program. Up to September 2000, around 45 per cent of total assets of banking sector are government bonds, which are illiquid and difficult to converse to the loan able fund for the real sector. It means that the capital is not used efficiently to fund the real sector. Based on these circumstances, the scenario if there is no improvement of bank restructuring, the capital augmenting technical change of banking sector decrease 50 per cent that it should be. If the bank restructuring is effective to reduce the inefficiency in using capital in the banking sector, the scenario of this research is reducing the capital augmenting technological change by 10 per cent.

Other scenarios are if the situation become worst while the failed of bank restructuring also influence capital efficiency of other sectors. The prediction of this impact can be seen through the scenario 3 that the capital augmenting technical change of all sectors reduces by 50 per cent. The better condition of bank restructuring can be analyzed if the capital augmenting of technical change in all sector sectors reduces only 10 per cent (scenario 4).

The bank restructuring can also be seen through the effectiveness of all sectors in using fixed factor, which will influence rate of return on capital of all sectors. It is assumed that the failed of bank restructuring will increase the risk premium on capital that will reduce the rate of return on capital. There are two scenarios in this case, which are reducing the rate of return on capital by 10 per cent (scenario 5) and increasing the rate of return on capital by 10 per cent (scenario 6). Scenario 5 represents the failed of bank restructuring and the successful of bank restructuring in scenario 6.

The impact of all scenarios can be analysed through the macroeconomic variables and sectoral variables, especially agricultural industries. The analyse is started from the scenario 1 and continues to the scenario 6. The macroeconomic impact of all scenarios can be seen in Table 2. It shows that if the efficiency of capital on banking sector reduces by 50 per cent because there is no progress on bank restructuring, the national income of Indonesia will reduce by 0.33 per cent. Reducing the efficiency of capital in banking sector cause the investment increase, however, the productivity of capital decrease. It can be seen from a decrease of average capital rental. Most capital for investment come from the government through government bonds, which is inefficient to provide more capital to the real sector. Reducing the productivity and the capital rate of return can also influence return on other primary factors (labor and land). As a result, the GDP from the income side decrease, which is influence the growth of national income (real GDP). .

The positive impact on national income will be gained if the capital augmenting technical change only reduces by 10 per cent (scenario 2). With this scenario, the average capital rental still increases with the small amount. Other primary factors return, as an income side of GDP also increases with the small amount. In the expenditure side, an increase of the return to land, labor and capital is not sufficient to increase the private consumption. An increase of return to primary factor also influences an increase of GDP deflator because the price of commodity will be higher than before. However, the commodity prices in some commodities still competitive with the world price. The net export is still positive and the terms of trade increase. This condition shows that if the capital efficiency only reduce by 10 per cent, the Indonesian economy will be better. The economy will be better if the capital efficiency continues to increase.

Table 2. Macro Economic Variables Change of Bank Restructuring (percentage change)

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Real GDP (x0gdpexp)	-0.33	0.57	-98.79	-8.72	-0.10	0.10
Real private consumption (x3tot)	-4.13	-1.66	83.43	-1.34	0.08	-0.08
Real investment (x2tot_i)	4.95	6.17	-557.71	-28.73	-0.60	0.60
Import volume (x0imp_c)	2.72	2.07	-252.18	-10.48	-0.25	0.25
Export volume (x4tot)	7.55	2.28	-236.96	-11.06	-0.27	0.27
Real devaluation (p0realdev)	-0.92	-0.20	23.03	-2.44	-2.70	2.70
Term of trade (p0toft)	1.82	0.50	-2.37	0.73	-0.07	0.07
GDP price deflator (p0gdpexp)	0.13	0.25	-21.74	-0.11	-0.13	0.13
Average capital rental (p1cap_i)	-0.32	0.43	-50.64	-0.99	-4.54	4.54
Wage rate (w1lab_io)	-0.57	2.24	-250.23	-19.48	-5.18	5.18
Land rental (w1lnd_i)	-3.06	0.65	-160.01	-21.57	-6.80	6.80

Scenario 1: capital augmenting technical change in banking sector decreases 50 per cent
Scenario 2: capital augmenting technical change in banking sector decreases 10 per cent
Scenario 3: capital augmenting technical change in all sectors decreases 50 per cent
Scenario 4: capital augmenting technical change in all sectors decreases 10 per cent
Scenario 5: rate of return on capital in all sectors decrease 10 per cent
Scenario 6: rate of return on capital in all sectors increase 10 per cent

However, in the worst case, if capital inefficiency of banking sector is still occurred and influences the capital efficiency of other sectors, the macroeconomic performance of Indonesia becomes worst. It can be seen in Table 2 that in scenario 3, the real GDP decrease with a big amount. The source of decrease of real GDP come from the income and expenditure side. The bad impact will reduce if the reducing of the capital augmenting technical change in all industries reduces to 10 per cent (scenario 4).

From scenario 1, 2, 3, and 4, it is clear that the failed of bank restructuring will have a bad impact on the macroeconomic performance of Indonesia. The impact become worst in the case of reducing the efficiency of using capital in all sector. The high effort should be done to make the Indonesian economy become strong after economic crisis 1997.

Scenario 5 and 6 are quite different from other scenarios. In both scenarios the successful of bank restructuring can be seen through the change in the rate of return on capital. The successful of bank restructuring will decrease the risk and increase the rate of return, and otherwise if it is failed. A decrease or rate of return on capital 10 percent (scenario 5) in all sectors will decrease the real GDP. In the expenditure side, the failed of bank restructuring will discourage investment. The net exports also decrease. The consumption still slightly increases because the GDP price deflator decrease. Therefore, even though the source of income (capital rental, wage rate and land rental) decrease, the economic actors can still afford to consume. In the short run, the consumption can be the engine of growth. However, without an increase on investment, the source of growth that only depends on consumption can cause bad influence for economic recovery. If the economy cannot afford to provide goods for consumption, the country will depend on the import. In the long run, the investment source of growth is more beneficial for the country.

If bank restructuring successful to reduce the risk and can increase the rate return on capital by 10 per cent, the GDP real will increase. The result will be the opposite of reducing the rate of return on capital for all sectors. All macroeconomic variables will contribute to the better macroeconomic performance, even though there is a small amount on percentage increase of real consumption.

The impact of bank restructuring on each industry can be seen from Table 3 (impact on output) and Table 4 (impact on capital). There are three scenarios will be analysed, which is related to the capital augmenting technical change and the change on rate of return on capital.

In scenario 1 and 2, the inefficient of capital used in banking sector because the unsuccessful of bank restructuring will reduce the output of bank services, even though there is an increase of capital formation in banking sector (Table 4). The bad impacts reduce if the capital augmenting technical change reduces by 10 per cent (scenario 2). It shows that the capital formation in banking sector is not efficient to fund the real sector and the banking sector is failed to fulfill the intermediary function of the banking system. Banking sector needs more capital to run its services. It can be seen in Table 4 that the

capital in each sector slightly increase in scenario 1 and more increase in scenario 2 as the capital efficiency reduce by 50 and 10 per cent, respectively. The slightly increase on capital cause almost all sectors reduce their output (Table 3). A slightly increase of capital is not enough to increase an output of each industry. The industry, especially for the agricultural sector that is not capital intensive needs more capital. On the other hand, the biggest negative impact on output is mining sector because the sector is more capital-intensive compare to other industries (Table 5).

The share of return on each primary factor (land, labor and capital) to the total primary factor also influence the performance of the sector because of bank restructuring. It can be seen in Table 5 that the agricultural group industries have a big share on land and labor compare to capital. It indicates that the agricultural industries in Indonesia are not capital intensive. As describe in the methodology, there is no return to land and capital in the Input-Output Table. The gross operating surplus and depreciation from Input-Output Table is assumed to be the total of return to land and capital. The share of return to land and capital is taken from the Social Accounting Matrix (SAM). Therefore, it might not describe the real picture. However, it is assumed that it is a best approach.

The input share figure shows that agricultural sector still need more capital in order to develop its comparative and competitive advantage. The existing condition will not support to the increase in productivity. It can be seen from the data of Central Statistical Bureau of Indonesia that the rate of productivity growth for paddy is 1,31 per cent per year in 1969 – 2000, which is the more productive among food crops (Oktaviani, 2002). The government attention has been more to the paddy production as a main staple food of Indonesia compare to other crops. Several program have been done to reach food security. However, other food crops, such as soybean, have a productivity 1.20 ton/ha in 1998, which much lower than the average of productivity in the world (2.05 ton/ha) (Oktaviani, 2002).

The successful of bank restructuring, which shows from an increase of rate of return on capital (scenario 3) will increase the capital formation in all sectors except for other food crops, Oil and gas, mining, oil and gas refinery. These sectors are more capital intensive than other sectors (Table 5) and it cause an increase of depreciation and replacement cost. Furthermore, the capital formation decrease and the output of these sector decrease. Other sectors have output bigger or minimize the negative percentage change compare to if bank restructuring is failed. Paddy is one example have a positive percentage change in scenario 3.

Bank restructuring is needed to increase capital funding in agricultural sector. With the small portion of capital, if the capital augmenting technical change in banking sector is still reduced by 10 per cent, only some industries will increase their output with small amount (Table 3). Even if there is an increase of rate of return on capital in each industry because the efficient of banking service, in the food crops group, only paddy, cassava and beans will have a positive impact. The government policy is still needed to encourage banking sector to give a soft loan to the agricultural sector. The credit program, with the soft loan and easy administrative, combine with the training to increase

human development and technology adoption can be suggested to increase the agricultural product and productivity.

Table 3. Impact of Bank Restructuring on Output in each Industry

No	Industries	Scenario 1	Scenario 2	Scenario 3
1	Paddy	-0.02	-0.03	0.28
2	Maize	0.23	-0.19	-0.08
3	Cassava	0.01	-0.05	0.16
4	Root crops	-0.56	-0.23	-0.02
5	Beans	0.36	-0.04	0.43
6	Soybean	0.30	-0.20	-0.54
7	Vegetable and Fruit	-0.02	-0.11	-0.10
8	Other Food Crops	1.00	-1.02	-3.21
9	Rubber	-0.73	-0.46	-0.66
10	Sugar cane	0.59	-0.15	-0.06
11	Coconut	0.02	-0.16	0.03
12	Oil Palm	0.57	-0.20	-0.25
13	Coffee	0.59	-0.15	-0.07
14	Tea	0.54	-0.25	-0.32
15	Other Estate crops	-3.91	-1.24	-0.14
16	Other crops	-0.94	-0.21	-0.03
17	Livestock	-0.19	-0.13	0.07
18	Forestry	-0.39	0.49	1.08
19	Fishery	-0.50	-0.10	0.59
20	Agricultural Service	-0.16	-0.04	0.30
21	Oil and Gas	1.33	1.06	-0.45
22	Mining	-2.11	-3.19	-1.49
23	Livestock Processing	-0.15	-0.09	0.20
24	Food Processing	0.29	0.04	0.80
25	Fish Processing	0.38	0.38	1.77
26	Estate Crops Processing	0.62	-0.15	-0.07
27	Rice	-0.02	-0.03	0.28
28	Wheat	0.13	0.08	0.64
29	Alcohol and Tobacco	-0.04	0.10	0.11
30	Textile and Leather	-1.15	-0.29	-0.16
31	Wood Product	-0.54	0.15	1.60
32	Other Industries	-0.20	0.19	0.08
33	Fertilizer and Pesticide	0.08	-0.03	0.08
34	Oil and Gas Refinery	1.28	0.82	-0.59
35	Services	-0.74	-0.01	0.08
36	Trade and Transportation	0.94	2.45	0.29
37	Bank Service	-9.45	-1.80	-0.02

Scenario 1: capital augmenting technical change in banking sector decreases 50 per cent
Scenario 2: capital augmenting technical change in banking sector decreases 10 per cent
Scenario 3: rate of return on capital in all sectors increase 10 per cent

Table 4. Impact of Bank Restructuring on Capital in Each Industry

No	Industries	Scenario 1	Scenario 2	Scenario 3
1	Paddy	0.48	0.84	0.65
2	Maize	0.59	0.76	0.49
3	Cassava	0.45	0.80	0.62
4	Root crops	0.20	0.73	0.53
5	Beans	0.63	0.81	0.73
6	Soybean	0.59	0.74	0.30
7	Vegetable and Fruit	0.46	0.79	0.48
8	Other Food Crops	0.92	0.37	-0.92
9	Rubber	0.40	0.79	0.06
10	Sugar cane	0.86	0.83	0.42
11	Coconut	0.50	0.76	0.51
12	Oil Palm	0.79	0.76	0.36
13	Coffee	0.81	0.80	0.44
14	Tea	0.89	0.82	0.27
15	Other Estate crops	-1.38	0.28	0.41
16	Other crops	0.17	0.82	0.41
17	Livestock	0.40	0.80	0.56
18	Forestry	0.28	1.05	1.00
19	Fishery	0.24	0.78	0.78
20	Agricultural Service	0.50	0.88	0.59
21	Oil and Gas	1.35	1.10	-0.41
22	Mining	-0.90	-1.52	-0.88
23	Livestock Processing	0.41	0.55	0.27
24	Food Processing	0.74	0.67	0.68
25	Fish Processing	0.61	0.67	1.54
26	Estate Crops Processing	0.95	0.51	0.08
27	Rice	0.42	0.50	0.32
28	Wheat	0.45	0.47	0.60
29	Alcohol and Tobacco	0.28	0.46	0.17
30	Textile and Leather	-0.29	0.43	0.02
31	Wood Product	0.05	0.65	1.30
32	Other Industries	0.37	0.75	0.18
33	Fertilizer and Pesticide	0.57	0.59	0.18
34	Oil and Gas Refinery	1.35	1.03	-0.43
35	Services	0.16	0.76	0.21
36	Trade and Transportation	1.18	2.34	0.33
37	Bank Service	17.61	4.70	0.13

Scenario 1: capital augmenting technical change in banking sector decreases 50 per cent
Scenario 2: capital augmenting technical change in banking sector decreases 10 per cent
Scenario 3: rate of return on capital in all sectors increase 10 per cent

Table 5. The Primary Input Share

No	Industries	Capital	Labor	Land	Total
1	Paddy	4,2	17,8	78,0	1.991.660.998
2	Maize	4,3	16,5	79,2	275.543.013
3	Cassava	4,7	9,4	85,9	287.572.000
4	Root crops	4,5	12,3	83,2	129.944.994
5	Beans	4,5	12,7	82,7	152.526.998
6	Soybean	4,6	11,1	84,3	158.060.998
7	Vegetable and Fruit	4,4	14,3	81,3	1.466.537.048
8	Other Food Crops	4,5	11,6	83,9	6.235.000
9	Rubber	4,8	59,7	35,5	265.363.996
10	Sugar cane	7,9	33,8	58,3	302.610.000
11	Coconut	9,8	18,6	71,6	263.612.005
12	Oil Palm	9,2	23,7	67,2	205.496.001
13	Coffee	8,9	25,6	65,5	91.957.998
14	Tea	6,9	42,4	50,7	44.709.000
15	Other Estate crops	9,0	24,9	66,1	317.381.006
16	Other crops	7,2	39,6	53,1	13.868.000
17	Livestock	2,9	17,0	80,1	1.017.696.002
18	Forestry	17,1	18,8	64,1	780.270.019
19	Fishery	10,7	17,9	71,4	950.238.983
20	Agricultural Service	8,1	32,9	59,1	115.929.999
21	Oil and Gas	96,2	3,8	0,0	2.532.795.038
22	Mining	62,6	37,4	0,0	1.486.628.027
23	Livestock Processing	66,9	33,1	0,0	562.811.011
24	Food Processing	64,1	35,9	0,0	649.284.009
25	Fish Processing	83,6	16,4	0,0	276.561.008
26	Estate Crops Processing	66,4	33,6	0,0	1.151.039.990
27	Rice	73,4	26,6	0,0	402.895.008
28	Wheat	80,5	19,5	0,0	89.908.001
29	Alcohol and Tobacco	82,2	17,8	0,0	754.111.987
30	Textile and Skin	65,5	34,5	0,0	1.481.372.949
31	Wood Product	71,9	28,1	0,0	766.944.019
32	Other Industries	66,2	33,8	0,0	4.535.545.996
33	Fertilizer and Pesticide	66,9	33,1	0,0	156.309.998
34	Oil and Gas Refinery	84,7	15,3	0,0	1.126.373.974
35	Services	53,5	46,5	0,0	11.716.621.875
36	Trade and Transportation	67,1	32,9	0,0	12.340.382.031
37	Bank Service	60,7	39,3	0,0	2.232.496.972

4. CONCLUSION AND POLICY IMPLICATION

Bank restructuring can be seen through the change on capital efficiency (capital augmenting technical change) of bank sector and every sector and the change on the rate of return on capital of each sector in the economy. There are six scenarios that will capture the success and failure of bank restructuring in this study.

It is clear that the failure of bank restructuring that can be seen from a decrease on capital augmenting technological change will have a bad impact on the Indonesian macroeconomic performance. It will reduce the GDP, both from income side and expenditure side. The impact becomes worst if it reduces the capital efficiency in all sectors. The high effort should be done to make a successful of bank restructuring. The human resource development should be done in order to increase the capability of banking sector to make a credit portfolio to decide the industry to be funding. The capability to make a risk assessment is also useful to minimize the failure of credit return. There are also some external circumstances should be managed such as the security, the application of law and enforcement and the conduciveness of business environment.

In the microeconomic level, the inefficiency of capital used in banking sector because the unsuccessful of bank restructuring will reduce the output of bank services, even though there is an increase of capital formation in banking sector. The sector, which has the biggest negative impact, is mining, which use the big share of capital compare to other industries (Table 5). The successful of bank restructuring (scenario 3) will increase the output bigger than the failed of bank restructuring or will minimize the negative percentage change. Paddy is one example have a positive percentage change in scenario 3.

Bank restructuring is needed to increase capital funding in agricultural sector. Because of a small share of capital used, even if rate of return on capital increase in each industry in the food crops group, only paddy, cassava and beans will have a positive impact. The government policy is still needed to encourage banking sector to give a soft loan to the agricultural sector. The credit program, with the soft loan and easy administrative, combine with the training to increase human development and technology adoption can be suggested to increase the agricultural capital and in return, to the agricultural product and productivity.

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