

# Analysis of Stock Valuation State-owned Enterprises Banking in Related of Forming Holding Company State-owned Enterprises in Banking and Financial Service Sector: Case Study of PT Bank Mandiri and of PT Bank BRI

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**Abstract:** This research aimed to estimate equity per share of holding company that will be created by government is undervalue or overvalue and the other aimed is to know and analyze the intrinsic value of PT Bank Mandiri (Persero) Tbk and PT Bank Rakyat Indonesia (Persero) Tbk.. For that reason PT Bank Mandiri (Persero)Tbk and PT Bank Rakyat Indonesia (Persero) Tbk is choosen, because it will be big part of equity holding. For this research, the information was used is secondary data of PT Bank Mandiri (Persero) Tbk and PT Bank Rakyat Indonesia (Persero) Tbk by using annual report, and other information from all report from other institution that support the research. This research use Free Cash Flow to Equity with Discounted Cash Flow, Relative Valuation (with Price Earning Ratio, Price to Book Value and Price to Sales Ratio) and Abnormal Earning as methods to valuing the company .As for result from the research, PT Bank Mandiri (Persero) Tbk isundervalue because the share fairvalue is Rp8.762,09/share and the closing price of the share is Rp 8.000,00/share and For PT Bank Rakyat Indonesia is also undervalue, because the share fairvalue isRp4.085,50/share and the closing price is Rp 3.640,00/share.

## 1 INTRODUCTION

The forming of State-Owned Enterprises as a Holding Company in Banking and Financial Service Sector, is a strategic masterplan from State-Owned Enterprises Minister, to develop efficiency, synergy and increase value added for each State-Owned Enterprises in Banking and Financial Service Sector. The holding process is really interesting and unique because, in the process PT Bank Mandiri (Persero) Tbk and PT Bank Rakyat Indonesia (Persero) Tbk is involved, because the roles of PT Bank Mandiri (Persero) Tbk and PT Bank Rakyat Indonesia is very dominant if it measured in total asset, due the value of total asset is very large. At the other side these bank have performance achievement in very good way. Holding company has function as a parent company and play role for planning, coordinating, consolidation, emphasize and controlling for the purpose to optimize the performance of branch company.

Valuation is process of determining the current worth of an asset or a company; there are many techniques used to determine value. An analyst placing a value on a company looks at the company's management, the composition of its capital structure, the prospect of future earnings and market value of assets (Investopedia). Besides, for purpose of *holding*, valuation is useful for investor to do investment. Investment is the placement of the funds at this time hoping to generate profits in the future. Investors in making decisions need important information as the base for determining investment choices. Investment decision is very important because to obtain the optimum return and avoid losses (Fachrudin, 2016).

Karlsson, Jofefsson and Osterlund (2011) conduct research about stock price valuation, a case study in dividen discount model and free cash flow to equity model. This research using dividend discount model (DDM) and free cash flow to equity model (FCFE). The result of this research is

tendency of FCFE model works better towards company with payout ratio and DDM model works better in company high dividen payout ratio.

Benaji (2011) conduct research about valuation fair value perum pegadaian related IPO planning in 2012 with free cash flow to equity method. This research using discounted free cash flow to equity, and the result is fair value range stock perum pegadaian Rp 1.716,40/share to Rp 3.859,35/share. The fair value is Rp 3.275,86.

Anggraeni, Rikumahu and Gustyana (2017) make research about valuation analysis with Free Cash Flow to Equity (FCFE) and Price Earning Ratio (PER) . Study on infrastructure, utility and transportation that listed on Indonesia Stock Exchange from 2011-2015. The research using free cash flow to equity(FCFE) and price earning ratio (PER). There are three results,the first is FCFE method can applied to calculate fair value stock. The second is valuation model with price earning ratio can applied to calculate fair value stock. The third, is using FCFE method and the result 10 stocks is undervalue, and the investment option is to buy the stock, and 1 stock in undervalue, and the best option is to sell the stock.

Magdalena (2012) research about stock valuation in coal mining industry using free cash flow to equity analysis, abnormal earning, and relative valuation on PT Bukit Asam (Tbk). The research method using FCFE,EAE and relative valuation. The result is FCFE, EAE, and relative valuation shows that undervalue. Singgih (2012) explained the method using cross section regression with BLUE (Best Linier Unbiased Estimator),The result is growth rate of earning (GE) and systematic risk ( $\beta$ ) on simultaneously influence price earning ratio (PER). Kristiantari (2012) conduct research about analysis factors that influence under pricing stocks on initial public offering on Indonesia Stock Exchange. This research using analytical description with variable that got by emphirical theoretic. The research conclusion is the underpricing company do initial public offering is influenced by underwriting reputation, company size, purpose allocation fund. Saputra (2015) researchs estimation of fair value stocks PT Telekomunikasi Indonesia Tbk, using FCFE, Dividen Discounted Model and Relative Valuation using price earning ratio. The research concludes stock of PT Telekomunikasi Indonesia Tbk. is a good stock to buy. The reason is value of three valuation is above average of closing price of PT Telekomunikasi Tbk stock. Gardner, McGowan and Moeller (2012) conduct research about valuing coca-

cola using free cash flow to equity valuation model. This research using free cash flow to equity and the result shows total value of coca-cola on 2010 is \$161.417, and the actual market value is \$150.185. Pratama (2010) did research about valuation analysis about stock price using free cash flow to equity and relative valuation (Study case: PT Bank Negara Indonesia, Tbk.), using FCFE and relative valuation. The research show the undervalue of FCFE method and relative valuation method. Khasanah (2012) conduct a research with the title about valuing stock price with dividen discount model (DDM) and free cash flow to equity (FCFE) (Study on stock index LQ 45 in Indonesia Stock Exchange 2007-2011). The method of this research using dividen discount model (DDM) and Free Cash Flow to Equity (FCFE) model (Study on stock index LQ 45 in Indonesia Stock Exchange 2007-2011).

Through researches described above, there is two purposes of this research, the first is to have better understanding and valuing intrinsic share value of PT Bank Mandiri (Persero) Tbk and PT Bank Rakyat Indonesia (Persero) Tbk, with top down analysis for knowing the information throughly about financial statements of the company, and the second is related of forming the holding company of state-owned enterprises in banking and financial sector service, for knowing and analyzing stock price with valuation method to determine, is the price undervalue or overvalue? The linkage of *free cash flow to equity*, *relative valuation*, abnormal earning and valuing company or share can be seen in Figure 1.

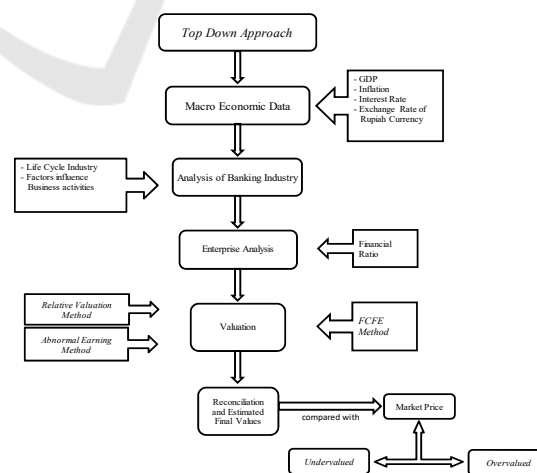


Figure 1: Conceptual Framework

## 2 METHOD

This research used three approaches/ methods to determine the fair value of equity. The first approach using Discounted Cash Flow (DCF) with Free Cash Flow to Equity (FCFE). The second approach using Relative Valuation by using Price Earning Ratio (PER), Price to Book Value (PBV) and Price to Sales Ratio (P/S). And the third approach using Abnormal Earning. These three approaches are used for valuing the equity and estimating intrinsic value with by dicounting value of future cash flows.

### 2.1 Analysis Technique

To estimate fair value of stock using Free Cash Flow to Equity using Discounted Cash Flow, is required projection of Free Cash Flow to Equity component, like asset base. This research projection showed the asset base to 5 years ahead. This is accordance to Keputusan Kepala BAPEPAM-LK No. Kep-340-BL/2012, that projection at least needed is 5 years ahead.

### 2.2 Cost of Equity

The cost of equity is the rate of return that investors require to invest in the equity of a firm. The purpose of cost of equity is used to discount cash flows to equity (Damodaran, 2012). Generally, the formula of cost of equity can be earned by Capital Asset Pricing written as follows:

$$E_{(r)} = K_c = R_f + \beta(ERP_{mm} - CRP)$$

- $E_{(r)}$  = Expected return of asset
- $K_c$  = Cost of equity
- $R_f$  = Risk-free rate
- $\beta$  = Beta of asset
- $ERP_{mm}$  = Mature market equity risk premium
- $CRP$  = Country Risk Premium

In search value of  $\beta$ , this research using *unlevered beta* of *finance/banking* sector, due to the operational using deposit and debt from customer, so *levered beta* value must be calculated. The formula of *levered beta* can be seen as follows

$$B_L = \beta_U(1 + (1-t)L/E)$$

- $B_L$  = Beta levered
- $B_U$  = Beta unlevered
- $t$  = Tax rate
- $L$  = Book value of liabilities
- $E$  = Book value of equity

### 2.3 Free Cash Flow to Equity

Free Cash Flow to Equity with Discounted Cash Flow says the formula used is different than the normal one for banking and financial service sector. This is because estimating net capital expenditure and noncash working capital for a bank or insurance company is difficult, because asset and liabilities in form of financial claim, and the second reason is a difficult way to define short-term debt for financial service firms because the complexity of balance sheet. So, we redefine reinvestment as investment in regulatory capital. Not just that, Damodaran says the truth of book value of banking and financial service sector can be accounted for, because the strict regulation in this sector. To estimate FCFE for bank, the approach using reinvestment in regulatory capital as reinvestment. Different than the usual one look backwards, in this case the approach focus on estimating future FCFE. So, it begin with current values for asset base and current value of regulatory capital (book equity). After that, we can estimate and obtain current regulatory capital ratio and current return on equity. The formula can be seen as follows

$$\text{Current regulatory capital ratio} = \frac{\text{Regulatory Capital}}{\text{Asset Base}}$$

$$\text{Current return on equity ratio} = \frac{\text{Net Income}}{\text{Regulatory Capital}}$$

The Free Cash Flow to Equity for banking and financial service can be written as follows:

$$FCFE_{\text{Bank}} = \text{Net Income} - \text{Increase in Regulatory Capital.}$$

### 2.4 Terminal Value/ Steady State

Terminal value is a measure of how much the project is worth at the end of its lifetime  $N$  years. In a simple way, terminal value can be explain as approach of grow with a constant rate forever. With assumption of long life company based on going concern aspect, terminal value approach will be give more reasonable yield. The general formula used in calculating terminal value can be seen as follows

$$\text{Terminal Value} = \frac{FCFE_{n+1}}{K_e - g}$$

- $FCFE$  = Free cash flow to equity n year
- $K_e$  = Cost of equity
- $g$  = Stable growth

## 2.5 Determination of the Value of Equity

Value of equity is total present value of estimation of free cash flow to equity from 2017 as current year to 2022 added with present value of terminal value. The value of equity can be seen as.

$$\sum_{i=1}^{t=n} \frac{FCFE}{[(1 - K_e)]^t} + \frac{\text{Terminal Value}}{[(1 - K_e)]^t}$$

## 2.6 Relative Valuation

In relative valuation, the value of asset compared to the values assessed by market for similar or comparable assets. So, to do relative valuation we need identify comparable asset, standarized values, compare and controlling for any difference. Price can be standarized using common variable such as earnings, cashflow, book value or revenue.

## 2.7 Price/ Earning Ratio

Price/Earning Ratio is the ratio for valuing a company that measure its share price per share to per-share earning. This is to see the capable of company to generate net income per share

$$PER = \frac{\text{Market Price per Share}}{\text{Earning per Share}}$$

## 2.8 Price/ Book Value

Price/Earning Ratio is the ratio for valuing a company that measure its market value per share to book value per share.

$$PBV = \frac{\text{Market Value per Share}}{\text{Earning per Share}}$$

## 2.9 Price/ Sale Ratio

Price/Sales Ratio is the ratio for valuing a company that measure its market value of equity to revenue This is to see the capable of company to generate revenue.

$$P/S \text{ Ratio} = \frac{\text{Market Value of Equity}}{\text{Revenue}}$$

## 2.10 Abnormal Earning

Abnormal earning is a method for determining a company's equity value based on book value and earnings (investopedia). It can be calculated by initial book value of the year reduced by growth of the book value. The formula can be seen as follows:

$$\text{Abnormal Earning} = E - (K_e \times BV)$$

## 2.11 Discount for Lack of Marketability and Control

Based by KEP-196/BL/2012, appraisal is must be use discount for valuing. Discount for lack of marketability is a percentage to reduce the value of equity, due to the liquidity of appraised object . Meanwhile, discount for lack of control is a percentage to reduce the value of equity, due to the control of appraised object.

## 2.12 Reconciliation of Value

The final result of stock valuation must be in single value, on the other hand, to reviewing is the method appropriate and the value is rational. Valuing reconciliation done with give weight to each item.

# 3 RESULTS AND DISCUSSION

The results will be divided in three methods

## 3.1 Free Cash Flow to Equity

Table 1: Bank Mandiri

	Highlights 1	Present Value 2
FCFE 0		7.551.193
FCFE 1		10.094.664
FCFE 2		13.034.889
FCFE 3		15.946.521
FCFE 4		18.829.228
FCFE 5		21.682.672
Total FCFE (A) (in million)		87.139.167
Terminal Vaieu (B) (in million)		288.418.130
Total A + B (in million)		375.557.297
Total A + B		375.557.297.000.000
Current Outstanding Shares		46.199.999.998
Indication Value per Share		8.128,95
Discount for Lack of Marketability 30%		2.438,68
Discount for Lack of Control 35%		2.845,13
Value of Equity/Share		2.845,14

Table 2: Bank Rakyat Indonesia

Highlights	Present Value
1	2
FCFE 0	12.063.809
FCFE 1	12.754.548
FCFE 2	12.911.233
FCFE 3	13.064.703
FCFE 4	13.214.586
FCFE 5	13.360.490
Total FCFE (A) (in million)	77.369.369
Terminal Value (B) (in million)	294.076.114
Total A + B (in million)	371.445.483
Total A + B	371.445.483.000.000
Current Outstanding Shares	122.112.351.900
Indication Value per Share	3.041,83
Discount for Lack of Marketability 30%	912,55
Discount for Lack of Control 35%	1064,64
Value of Equity/Share	1.064,65

### 3.2 Relative Valuation

Table 3: Bank Mandiri

Description	Multiplier	EPS	BVS	RPS	Amount
PER	33,5	637,0			21.385,18
PBV	1,7		3.474,1		6.149,26
P/S	49,8			1.720,8	85.782,38
Amount	5			1	113.316,9
Averages					37.772,31
DLOC				35%	13.220,31
DLOM				30%	11.331,69
Indication of the value per share					13.220,3
					1

Table 4: Bank Rakyat Indonesia

Description	Multiplier	EPS	BVS	RPS	Amount
PER	33,57	284,8			9.561,98
PBV	1,77		1.309,1		2.317,11
P/S	49,85			842,6	42.006,6
Amount				6	53.885,7
Averages					17.961,9
DLOC				35%	6.124,78
DLOM				30%	5.249,81
Indication of the value per share					6.286,6
					7

### 3.3 Abnormal Earning

Table 5: Bank Mandiri

Present Value Abnormal Earning (in million)	172.175.509
Present Value Abnormal Earning	172.175.508.9
Outstanding Shares	22.641
Indication Value per Share	46.199.999.99
Discount for Lack of Marketability 30%	8
Discount for Lack of Control 35%	3.726,74
Value of Equity/Share	1.118,02
	1.304,36
	1.304,36

Table 6: Bank Rakyat Indonesia

Present Value Abnormal Earning (in million)	175.439.042
Present Value Abnormal Earning	175.439.042.115.782
Outstanding Shares	122.112.351.900
Indication Value per Share	1.436,70
Discount for Lack of Marketability 30%	431,01
Discount for Lack of Control 30%	502,85
Value of Equity/Share	502,85

### 3.4 Reconciliation of Value

Table 7: Bank Mandiri

Method/Model	Indication of Value	Weight	Weighted Value
A. Discounted Cash Flow Method	2.845,14	20%	569,03
B. Abnormal Earning	1.304,36	20%	260,87
C. Relative Valuation			
Value of PER, PBV and P/S	13.220,31	60%	7.932,19
Amount (A+B+C)		100%	8.762,09
Estimated Fair Value Per Share			8.762,09
Range Value of Stock Determination	8.512,09	s/d	9.012,09



Table 8: Bank Rakyat Indonesia

Method/Model	Indication of Value	Weight	Weighted Value
A. Discounted Cash Flow Method Free Cash Flow to Equity Model	1.064,65	20%	212,93
B. Abnormal Earning	502,85	20%	100,57
C. Relative Valuation (PER,PBV,P/S) Value of PER,PBV and P/S	6.286,67	60%	3.772,00
Amount (A+B+C) Estimated Fair Value Per Share		100%	4.085,50
Range Value of Stock Determination	3.985,50	s/d	4.185,50

## 4 CONCLUSION

This study found that both Bank Mandiri (Fair value: Rp 8.762,09; Market price: Rp 8.000,00) and Bank Rakyat Indonesia (Fair value: Rp 4.085,50; Market price: Rp 3.640,00) is undervalue. Difference value of fair value price compare to market price can be guideline for forming holding company, for government, the best time for forming the *holding* when the member of holding in overvalue, but at the other hand it must be still look condition of stabilize market and good performance member of holding.

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