

Valuation Model For The Merger & Acquisition Of PT Bank Pembangunan Daerah Banten Tbk (BEKS)

Raden Maart Adi Waskita Tjahjono^{1*}, Isfan Ferli², Jerry Heikal³

^{1,2,3} Universitas Bakrie

Article Info

Article history:

Received 10 July 2025

Revised 13 July 2025

Accepted 15 July 2025

Keywords:

Acquisition, Valuation,
Overvalued

ABSTRACT

Merger and acquisition of a banking company are generally understood as efforts to improve the company by combining strengths or balancing the weaknesses of one company with the strengths of another. To face the dynamics of the domestic and global economy and information technology, it is necessary to strengthen the structure, resilience, and competitiveness of the national banking industry, which can be achieved by strengthening bank capital and banking consolidation in Indonesia, especially Regional Development Banks. To encourage the stability of the banking industry, particularly the strengthening of individual banks, the merger and acquisition strategy in the form of banking consolidation needs to be considered. Banking consolidation policy is one of the policy options taken by regulators to strengthen the stability of the financial system. This study aims to determine the appropriate transaction structure and price for PT Bank Pembangunan Daerah Banten Tbk (BEKS). This research uses quantitative and descriptive analysis of the financials of PT Bank Pembangunan Daerah Banten Tbk (BEKS) using the Free Cash Flow to the Firm (FCFF), Liquidation and Accounting Valuation, and Relative Valuation methods. The results project significant growth for the company over five years. The equity value per share of BEKS is Rp 14,89 compared to the market share price of Rp 23, indicating overvaluation. The acquiring company needs to carefully reconsider BEKS prospects and negotiate the price before proceeding with the acquisition process.

This is an open access article under the CC BY-SA license.



Corresponding Author:

Raden Maart Adi Waskita Tjahjono | Universitas Bakrie

Email: smaart@gmail.com

1. Introduction

Merger and acquisition are corporate actions and business strategies commonly used in the business world to build a company's competitive advantage, which, in turn, can increase the company's value and maximize the wealth of the company's owners or shareholders. Merger and acquisition are crucial strategies within the corporate scope and serve as one solution to prevent bankruptcy. The primary goals of mergers and acquisitions are to strengthen the structure, achieve desired growth, create synergy between entities, diversify products, increase sales, devise strategies for the company to compete with other companies, and minimize failures, which will ultimately maximize profits and enhance the wealth of the company's owners or shareholders.

To face the dynamics of the economy and information technology, both domestic and global, it is necessary to strengthen the structure, resilience, and competitiveness of the national banking industry. Strengthening the structure, resilience, and competitiveness of the national banking industry aims to support national economic stability and growth, which can be achieved by reinforcing bank capital and consolidating the banking sector in Indonesia.

The main objective of mergers and acquisitions for companies is to achieve synergistic benefits by collaborating with other companies rather than operating independently and to maximize shareholder wealth (Malik, 2014; Joshipura and Panda, 2019; Tarigan, 2018). In the current business landscape, mergers and acquisitions are used not only to compete effectively in tight markets but also to enhance profit margins, increase market share, and establish dominance on the international stage (Hitt and Pisano, 2003). Additionally, mergers and acquisitions offer significant benefits, including increased profitability and enhanced shareholder value (Yaghoubi et al., 2016; Tarigan, 2018).

Researchers continue to explore the critical question regarding the benefits of mergers and acquisitions: Do mergers and acquisitions positively impact companies in terms of profitability? Although mergers and acquisitions are viewed as a promising growth strategy for companies, some studies (Dutta and Dutta, 2015) indicate that acquiring companies often experience negative abnormal returns. Various research findings also investigate the extent to which stock prices can fully reflect the impact of significant corporate events such as merger and acquisition transactions (Boateng and Bi, 2013). Interestingly, these findings challenge the efficient market hypothesis (Dutta and Dutta, 2015), wherein, in a semi-strong efficient market, stock prices should already incorporate all relevant information during the announcement period of corporate events, including merger and acquisition transactions. One of the strategies for corporate development and sustainability is through acquisitions.

Mergers and acquisitions are forms of external company expansion strategies by combining one company with another. According to Sriyani et al. (2022), a merger is a combination of companies of different sizes where the larger company remains and the smaller company is absorbed into the larger one. Meanwhile, an acquisition is a business combination where the acquirer buys part of the shares of the acquired company, thus gaining control over the

management of the acquired company. When two or more companies merge to form a new company, it is called consolidation, which is a form of external expansion. In Indonesia, several terms are used to describe these actions, such as mergers, acquisitions, amalgamations, consolidations, and fusions, which are regulated by laws and government regulations.

To face the dynamics of the economy and information technology, both domestic and global, it is necessary to strengthen the structure, resilience, and competitiveness of the national banking industry. Strengthening the structure, resilience, and competitiveness of the national banking industry aims to support national economic stability and growth, which can be achieved by reinforcing bank capital and consolidating the banking sector in Indonesia.

The main objective of mergers and acquisitions for companies is to achieve synergistic benefits by collaborating with other companies rather than operating independently and to maximize shareholder wealth (Malik, 2014; Joshipura and Panda, 2019; Tarigan, 2018). In the current business landscape, mergers and acquisitions are used not only to compete effectively in tight markets but also to enhance profit margins, increase market share, and establish dominance on the international stage (Hitt and Pisano, 2003). Additionally, mergers and acquisitions offer significant benefits, including increased profitability and enhanced shareholder value (Yaghoubi et al., 2016; Tarigan, 2018).

Researchers continue to explore the critical question regarding the benefits of mergers and acquisitions: Do mergers and acquisitions positively impact companies in terms of profitability? Although mergers and acquisitions are viewed as a promising growth strategy for companies, some studies (Dutta and Dutta, 2015) indicate that acquiring companies often experience negative abnormal returns. Various research findings also investigate the extent to which stock prices can fully reflect the impact of significant corporate events such as merger and acquisition transactions (Boateng and Bi, 2013). Interestingly, these findings challenge the efficient market hypothesis (Dutta and Dutta, 2015), wherein, in a semi-strong efficient market, stock prices should already incorporate all relevant information during the announcement period of corporate events, including merger and acquisition transactions. One of the strategies for corporate development and sustainability is through acquisitions.

Mergers and acquisitions are forms of external company expansion strategies by combining one company with another. According to Sriyani et al. (2022), a merger is a combination of companies of different sizes where the larger company remains and the smaller company is absorbed into the larger one. Meanwhile, an acquisition is a business combination where the acquirer buys part of the shares of the acquired company, thus gaining control over the management of the acquired company. When two or more companies merge to form a new company, it is called consolidation, which is a form of external expansion. In Indonesia, several terms are used to describe these actions, such as mergers, acquisitions, amalgamations, consolidations, and fusions, which are regulated by laws and government regulations.

Government Regulation Number 28 of 1999 defines a merger as the combination of two or more banks, with one bank remaining and the other banks being dissolved without prior liquidation. Consolidation is the combination of two or more banks by establishing a new bank and dissolving the existing banks without prior liquidation. Acquisition is the takeover of a bank's ownership, resulting in the transfer of control over the bank. Mergers, consolidations, and acquisitions of banks can be carried out based on: (a) the initiative of the concerned bank; (b) the request of Bank Indonesia; or (c) the initiative of a special temporary body for banking restructuring. Mergers, consolidations, and acquisitions of banks initiated by the concerned bank must first obtain approval from the leadership of Bank Indonesia. The requirement to obtain prior approval from the leadership of Bank Indonesia also applies to mergers and consolidations initiated by a special temporary body for banking restructuring. Mergers, consolidations, and acquisitions of banks are carried out by considering: (a) the interests of the bank, creditors, minority shareholders, and employees of the bank; and (b) the interests of the public and healthy competition in banking business operations.

Banking consolidation policy is one of the regulatory options to strengthen financial system stability. A series of consolidation policies were issued by Bank Indonesia (BI) and subsequently by the Financial Services Authority (OJK) in the form of minimum capital regulations, foreign ownership restrictions, and single presence policy. As a result, the banking sector has consistently consolidated and concentrated, decreasing from 239 banks in 1996 to 151 banks in 2000, and further shrinking to 110 banks in 2020.

In this regard, to strengthen the capability and competitiveness of the Indonesian banking industry, OJK issued the latest policy to reinforce capital and encourage banking consolidation through OJK Regulation No.12/POJK.03/2020 concerning the Consolidation of Commercial Banks to relax the single presence policy, allowing controlling shareholders to own more than one bank. This regulation is part of efforts to strengthen the structure, resilience, and competitiveness of the banking industry, ultimately supporting national stability and growth. Additionally, this regulation aims to make the banking industry more efficient by increasing economies of scale. The Bank Business Group, abbreviated as KUB, refers to banks within one group due to ownership and/or control links, consisting of two or more banks. Controlling shareholders are allowed to own more than one bank by forming a Bank Business Group (KUB). As stated in Article 3, banking consolidation can be done through the following schemes: 1) merger, consolidation, or integration; 2) acquisition accompanied by merger, consolidation, or integration; 3) forming a Bank Business Group for owned banks; 4) forming a Bank Business Group in case of Islamic business unit separation; 5) forming a Bank Business Group due to an acquisition. By consolidating through the formation of a bank business group, it facilitates parties or investors in rescuing banks through acquisition.

The issuance of the OJK Regulation on the Consolidation of Commercial Banks will help national economic growth by allowing controlling shareholders to own more than one bank through the formation of a Bank Business Group (KUB), thus eliminating the need to merge

the banks they acquire. The formation of KUB will create synergy between the banks within it, and the parent company can assist the liquidity of its subsidiaries. Therefore, after the issuance of the OJK Regulation on the Consolidation of Commercial Banks, acquisitions have become increasingly common among large banks acquiring smaller banks.

The major question regarding the relationship between banking consolidation and various factors such as efficiency, competition, market power, and financial stability remains a relevant debate. Studies on the impact of banking consolidation are not yet conclusive, especially since consolidation policies have diverse effects on different economies. Some studies have analyzed how the accuracy of consolidation strategies influences bank performance post-consolidation. For instance, an analysis of post-consolidation performance of European Union banks varies depending on their business strategies (Altunbas and Marques, 2008), and the impact of consolidation on the profitability of banks in Italy (Weber, 2017). Different results were found by Montgomery et al. (2014), who discovered that banking consolidation in Japan generally had a positive impact on entity profits due to increased bank market power. However, this impact was not found on cost structure efficiency. Other studies that attempt to link market structure, competition, and market power to financial system stability also yield varied conclusions. Carletti et al. (2002) and Osuagwu and Nwoko (2017) found that greater market power encourages banks to compete more efficiently, especially in their cost structures. However, studies by Liu et al. (2012), Ventouri (2018), and Zhang and Matthew (2018), which consider the banking industry structure in emerging economies and ASEAN countries characterized by monopolistic and heterogeneous competition with different characteristics in each country, particularly in terms of market scale and market independence from authority intervention, found different results.

The highly concentrated banking industry in Indonesia creates significant disparities in market power and market share between large and small banks and has monopolistic competition characteristics, making competition in the banking industry segmented, thus creating an uneven playing field between small and large banks. Large banks tend to operate in more competitive markets, while small banks exploit asymmetric information in niche segments (Yildirim and Philippatos, 2006). In line with the segmentation of the banking industry, Yugiangoro et al. (2019) concluded that banking consolidation that can increase market power in each bank tends to strengthen the stability of individual banks, especially in non-SOE banks and banks with relatively large asset sizes. Similar recommendations were also made for banks with relatively small total assets.

To promote the stability of the banking industry, particularly the strengthening of individual banks, banking consolidation strategies need to be considered. Additionally, this consolidation is also expected to strengthen the market power and market share of each bank. However, it still needs to be proven whether this goal will be achieved and whether the changes in market power and market share will also impact the stability of the financial system needs to be further analyzed.

Several commercial banks are actively pursuing the Financial Services Authority (OJK) regulations regarding a minimum core capital of IDR 3 trillion through rights issues and private placements. Meanwhile, several Regional Development Banks (BPD) chose the option of forming a Bank Business Group (KUB), which requires a more accessible path compared to the other two actions due to limited regional budgets. The KUB scheme is a relief provided by the regulator in banking consolidation. Banks with large capital only need to invest in smaller banks. Subsequently, both will synergize by sharing infrastructure, so small banks do not need to increase their capital to IDR 3 trillion, only a minimum of IDR 1 trillion.

As is known, several banks are undertaking consolidation actions driven by the OJK's regulation on fulfilling a minimum core capital of IDR 3 trillion. OJK Regulation No.12/POJK.03/2020 concerning the Consolidation of Commercial Banks requires banks to have a minimum core capital of IDR 3 trillion by December 31, 2023. For Regional Development Banks (BPD), they must meet the minimum core capital requirement of IDR 3 trillion by December 31, 2024. The issuance of these minimum core capital requirements is based on: (1) an effort towards a sound, strong, and efficient banking system capable of creating financial system stability and promoting sustainable national economic growth, and (2) an effort to strengthen the structure of BPDs and other commercial banks in line with the objectives set out in the Indonesian Banking Architecture (API) (Djumhana, 2008). The regulation encourages the strengthening of BPD's capital so that BPDs can enhance their role as drivers of regional economic growth and anticipate current trends in the banking industry, where one of the prominent capital strengthening schemes is through the formation of Bank Business Groups (KUB). KUB can create synergy amid the significant trend in the banking world towards digitalization. BPDs should anticipate the ongoing changes, especially in digital banking competition. Digital banking competition opens opportunities for new competition winners, but this must be supported by strong capital. Efforts to accelerate and socialize the KUB concept as one of the trends in strengthening core capital in each BPD must be carried out massively to all stakeholders.

PT Bank Pembangunan Daerah Banten Tbk (BEKS) is one of the twelve BPDs whose core capital does not yet meet the minimum requirement of IDR 3 trillion, according to the bank's financial statements as of December 2023. This situation forces PT Bank Pembangunan Daerah Banten Tbk (BEKS) to comply with regulatory requirements by either increasing capital injections or other more realistic methods. The formation of a Bank Business Group (KUB) is the most rational option for BPDs struggling to obtain fresh funds from owners. Mergers and acquisitions are good banking options for strategic partnerships with OJK. OJK encourages commercial banks to continue consolidating to increase capital and performance to face the prospects and challenges of the Indonesian economy. OJK currently sees that the gap between one BPD and another is still significant in aspects such as capital, governance, human resources context, and issues related to digitalization, among others. The formation of KUB is not the best solution for Regional Development Banks because it will reduce the

local government's rights in ownership and management of the bank in supporting the regional economy as the Controlling Shareholder (PSP). Therefore, appropriate strategies are needed to strengthen the capital structure of Regional Development Banks to meet the minimum core capital requirements set out by OJK regulations. Prihartono (2018) in his research stated that implementing bank mergers to achieve synergy is not easy, as many factors need to be considered (resulting in a healthy bank), such as finding complementary, synergistic partners and complying with laws and regulations. Banks that do not have a clear understanding of their potential merger partners need time for an approach, especially in terms of transparency. This transparency involves both financial conditions and assets. However, this transparency must not conflict with the bank's confidentiality aspects.

Intrinsic Value

According to Jogiyanto (2013:121), intrinsic value is the true value of a company. When an investor is calculating the intrinsic value, they need the financial statements of the company (Jogiyanto, 2015:140). There are two approaches that investors can choose to calculate intrinsic value: the present value approach and the price earning ratio approach (Tandelilin, 2010:319).

a. Present Value Approach

The present value approach involves discounting all cash flows at a discount rate equal to the rate of return required by investors (Tandelilin, 2017:308).

b. Price Earning Ratio (PER) Approach

The most popular approach for estimating the intrinsic value of a stock is the price earning ratio (PER) approach. Investors using the PER approach calculate how many times the earnings value is reflected in the stock price (Tandelilin, 2010:320). The formula for calculating PER is as follows: Explanation:

$$PER = \frac{D1 / E1}{k - g}$$

(Tandelilin, 2010:376)

D1 / E1 : Expected dividend payout ratio

k : Return paid

g : Expected average dividend growth rate

Once the PER is known, the estimation of the intrinsic value of a stock is done using two important components of company information, namely EPS and PER. Mathematically, the estimation of a company's intrinsic stock value is as follows:

Intrinsic Value = Estimated EPS X PER

(Tandelilin, 2010:377)

Stock Price

Stock prices are the prices at which stocks are traded on the stock exchange. According to Jogiyanto (2008:167), stock prices are the prices on the stock exchange at a certain time,

formed by market participants (demand and supply). Stock prices will rise if many investors want to buy or hold stocks, conversely, stock prices will fall if more investors want to sell stocks (Albab, 2015:1). Stock prices fluctuate, which can occur daily and even change every second depending on market demand. Stock prices are influenced by several factors, including panic factors, company policies, and company analysis.

Overvalued and Undervalued

According to Abdul Halim (2005:5), overvalued is a condition where the stock price in the market is considered too high because the market price is greater than its intrinsic value, whereas undervalued is a condition where the stock price in the market is considered too low because the market price is lower than its intrinsic value. To assess whether a stock is overvalued or undervalued, information is needed. However, information asymmetry can occur, where one party has more information (data) than the other. Managers, as company operators, know far more information (data) and future prospects of the company compared to investors. One way to reduce information asymmetry is for issuers to provide information to the stock exchange (Leland and Pyle, 1977). The signaling theory is the theory of giving signals from the company to the public (Jama'an, 2008). The delivery of company information to the public is through the company's financial statements (Achleitner and Bassen, 2001). Providing company financial statement data is very important to influence investors' investment decisions (Healy and Palepu, 1993). Generally, investors make stock investment decisions based on the latest information from the company. According to Tandelilin (2010:32), when a stock is undervalued, an investor's investment decision is to buy the stock or hold it if they already own it, whereas when a stock is overvalued, an investor's investment decision is to sell the stock.

Based on the background described above, the research problem formulation is what the fair valuation of PT Bank Pembangunan Daerah Banten Tbk (BEKS) stock is for offering purposes. The purpose of this study is to determine the fair valuation of PT Bank Pembangunan Daerah Banten Tbk (BEKS) stock for offering purposes.

2. Research Methods

The author uses a quantitative methodology, characterized by the collection of numerical data and subsequent analysis using statistical tools. Conducting an evaluation of the company's financial condition to determine the valuation model of Discounted Free Cash Flow is used to project the potential future income the company can generate. This approach takes into account the company's growth prospects and assesses its value based on its ability to generate cash flow, which is relevant for the company and its shareholders. On the other hand, the Dividend Discount method evaluates the intrinsic value of the company by considering historical and expected dividends. Meanwhile, Relative Valuation determines the company's value by analyzing the market prices of similar assets. In the process of mergers or acquisitions, it is necessary to assess whether the target company's stock value in

the market is lower than its intrinsic value (undervalued) or higher than its intrinsic value (overvalued).

The research process involves several steps, namely: (1) The research is conducted by first obtaining the target company's data through the use of the company's annual reports (source: www.idx.co.id), (2) Outlining the financial history and identifying fundamental variables ("value drivers") that significantly affect a company's performance, (3) Analyzing the target company's financial targets and making projections by considering both macroeconomic assumptions and the company's historical data, (5) Analyzing the application of the Capital Asset Pricing Model (CAPM) as a basis for making investment decisions by:

- Calculating the return on BEKS stock

$$R_i = \frac{P_t - P_{t-1}}{P_{t-1}}$$

- Calculating the market return

$$R_m = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$

- Calculating the stock Beta

$$\beta = \sum_{t=1}^N \frac{(R_i - \bar{R}_i)(R_m - \bar{R}_m)}{(R_m - \bar{R}_m)}$$

- Determining the risk-free return (R_f) through the 10-year government bond yield
- Calculating the expected return according to CAPM

$$E(R_i) = R_f + \beta_i [E(R_m) - R_f]$$

(6) Assessing the intrinsic value of the company's stock as a consideration for the merger and acquisition process.

3. Results and Discussion

Based on the analysis of the financial statements of the target company, PT Bank Pembangunan Daerah Banten Tbk (BEKS), over the last three years, the following overview can be presented:

- The value of assets has decreased from 2021 to 2023. Assets in 2022 decreased by 18.38% compared to 2021, while in 2023, they decreased by 5.85% compared to 2022.
- Liabilities have also decreased over the past three years. Liabilities in 2022 decreased by 19.79% compared to 2021, while in 2023, they decreased by 8.05% compared to 2022.
- The equity level showed fluctuations, decreasing by 13.19% from 2021 to 2022, then increasing by 1.66% in 2023.
- Interest income showed fluctuations, increasing by 48.41% from 2021 to 2022 but decreasing by 1.67% from 2022 to 2023.

- e. Interest expenses also fluctuated, increasing by 20.98% from 2021 to 2022 and decreasing by 15.67% from 2022 to 2023.
- f. The company posted net losses in 2021 and 2022, with net losses decreasing by 5.96% until 2023, when the company recorded positive performance by posting a profit.

One of the main determinants of value is the significant decrease in interest expenses from 2022 to 2023, showing a decrease of 15.67%. Additionally, there was an increase in net income over the past three years, with the company still experiencing losses in 2021 and 2022, while in 2023, the company posted a profit.

Table 1. Balance Sheet

Balance Sheet	Actual		
	2021	2022	2023
Cash	267.314,00	682.953,00	410.714,00
Loan Third Parties	2.709.189,0	3.315.140,0	3.334.357,0
Securities	2.139.509,0	798.327,0	759.820,0
Other	2.322.819,0	1.222.756,0	1.275.308,0
Current Assets	7.438.831,0	6.019.176,0	5.780.199,0
Fixed Assets and right of use of assets	365.358,0	346.359,0	341.917,0
Accumulated Depreciation	(288.453,0)	(307.226,0)	(307.226,0)
Nett Fixed Assets and right of use of as	76.905,0	39.133,0	34.691,0
Goodwill	-	-	-
Intangible Assets	-	-	-
Deferred Taxes	360.028,0	408.226,0	384.083,0
Other	973.847,0	756.523,0	601.848,0
Total Assets	8.849.611,0	7.223.058,0	6.800.821,0
Deposit From Customers and other bank	6.757.296,0	5.090.534,0	4.489.965,0
Other	116.264,0	349.005,0	323.217,0
Current Liabilities	6.873.560,0	5.439.539,0	4.813.182,0
Securities sold under repurchase agreeen	-	-	150.880,0
Post employments benefit liabilities	24.895,0	28.107,0	27.841,0
Other liabilities	55.662,0	109.700,0	135.793,0
Total	80.557,0	137.807,0	314.514,0
Taxes Payable	4.347,0	3.936,0	4.061,0
Other	-	-	-
Total Liabilities	6.958.464,0	5.581.282,0	5.131.757,0
Common Stock	4.308.864,0	4.308.864,0	4.308.864,0
Additional paid in capital	241.475,0	241.475,0	241.475,0
Retained Earnings	712,0	-	-
Treasury Stock	-	-	-
Other Adjustments	(2.659.904,0)	(2.908.563,0)	(2.881.275,0)
Noncontrolling Interest	-	-	-
Total Stockholders Equity	1.891.147,0	1.641.776,0	1.669.064,0
Total Liabilities and Equity	8.849.611,0	7.223.058,0	6.800.821,0

Table 2. Income Statement

Income Statement	Actual		
	2021	2022	2023
Interest Income	310.272,0	460.464,0	452.759,0
Interest Expense	251.404,0	304.161,0	256.489,0
Interest Income - Net	58.868,0	156.303,0	196.270,0
Provision of impairment	(79.761,0)	8.910,0	(17.494,0)
Other Operating Expense	383.125,0	538.672,0	260.588,0
Depreciation	-	-	-
Amortization	-	-	-
EBIT	(244.496,0)	(391.279,0)	(46.824,0)
Unusual (Gain) Loss	(735,0)	(18.148,0)	(1.244,0)
Non operating income (expenses)	(143,0)	(20.928,0)	(21.435,0)
Other Expense (Income)	(39.350,0)	(67.563,0)	(74.680,0)
Interest (Income)	-	-	-
Interest Expense	-	-	-
Earnings before Taxes	(204.268,0)	(284.640,0)	50.535,0
Noncontrolling Interest	-	-	-
Taxes	60.908,0	(45.353,0)	23.944,0
Net Income before Extra Items	(265.176,0)	(239.287,0)	26.591,0
Other Comprehensive Income	-	(10.084,0)	699,0
Net Income after Extra Items	(265.176,0)	(249.371,0)	27.290,0

The assumptions and data used to project BEKS's performance for the next five years are based on actual data from the past three years and data obtained from Bank Indonesia and the Financial Services Authority. This includes the projection of interest income growth at 11%, using the midpoint of the projected credit growth data from Bank Indonesia for 2024, which is in the range of 10%-12%.

Table 3. Target Company Assumptions

	Actual			Projections for the Period Ending December 31,				
	2021	2022	2023	2024	2025	2026	2027	2028
Income Statement								
Interest Income Growth	NA	48,4%	(1,7%)	11,0%	11,0%	11,0%	11,0%	11,0%
Interest Expense as a % of Interest Income	81,0%	66,1%	56,7%	34,5%	34,5%	34,5%	34,5%	34,5%
Provision of impairment % annual increase (de)	NA	(111,2%)	(296,3%)	6,0%	6,0%	6,0%	6,0%	6,0%
Other Operating Expense as a % of Sales	123,5%	117,0%	57,6%	59,6%	59,6%	59,6%	59,6%	59,6%
EBITDA Growth	NA	60,0%	(88,0%)	(203,5%)	9,1%	9,1%	9,2%	9,2%
EBITDA Margin	(78,8%)	(85,0%)	(10,3%)	9,6%	9,5%	9,3%	9,2%	9,0%
Balance Sheet								
Receivable Days	-	-	-	-	-	-	-	-
Inventory Days	-	-	-	-	-	-	-	-
Other Current Assets % of Interest Income	-	-	-	-	-	-	-	-
Accounts Payable Days	-	-	-	-	-	-	-	-
Other Current Liabilities % of COGS	-	-	-	-	-	-	-	-
Working Capital/Sales (Excl Cash & Debt)	96,0%	(22,4%)	122,9%	-	-	-	-	-
Cash Flow								
Acquisitions of fixed assets	7.928,0	6.814,0	2.298,0	4.523,1	5.020,6	5.572,9	6.185,9	6.866,3
Acquisitions of fixed assets as a % of Sales	2,6%	1,5%	0,5%	0,9%	0,9%	0,9%	0,9%	0,9%
Depreciation	-	-	-	-	-	-	-	-
Depreciation as a % of Sales	-	-	-	-	-	-	-	-
Goodwill Amortization (Pre-6/2001)	-	-	-	-	-	-	-	-
Amortization of Intangibles	-	-	-	-	-	-	-	-
Retirement of Senior Debt	-	-	-	-	-	-	-	-
Retirement of Subordinated Debt	-	-	-	-	-	-	-	-
Chg in Deferred Taxes - Asset	NA	48.198,0	(24.143,0)	-	-	-	-	-
Chg in Deferred Taxes - Liab	NA	(411,0)	125,0	-	-	-	-	-
Dividend from Affiliates	-	-	-	-	-	-	-	-
Payout Ratio of Affiliates	-	-	-	-	-	-	-	-
Dividends per Share	-	-	-	-	-	-	-	-
Dividend Payout Ratio	-	-	-	-	-	-	-	-
Dividends Paid	-	-	-	-	-	-	-	-
Effective Tax Rate	(29,8%)	15,9%	47,4%	25,0%	25,0%	25,0%	25,0%	25,0%
Other								
Shares Outstanding - Basic	-	-	51.870,4	51.870,4	51.870,4	51.870,4	51.870,4	51.870,4
Shares Outstanding - Diluted	-	-	51.870,4	51.870,4	51.870,4	51.870,4	51.870,4	51.870,4
Revolving Credit Facility Rate	-	-	-	-	-	-	-	-
Senior Debt Rate	-	-	-	-	-	-	-	-
Subordinated Debt	-	-	-	-	-	-	-	-
Average Interest Rate	NA	-	-	-	-	-	-	-
Marketable Securities Rate	-	-	-	-	-	-	-	-

The calculation of the risk-free rate (R_f) is based on the average yield of the 10-year Government Bonds (SUN) over the past year. The return on individual stocks can be calculated by comparing this month's closing stock price (denoted as month t) with the closing stock price of the previous month (denoted as month $t-1$), then dividing by the closing stock price of the previous month (month $t-1$), calculated over the last 10 years. The next step is to calculate the market return, which is based on the development of the stock index.

Table 4. IHSG Index

Dates	PX_LAST	Changes
31/12/2014	5226,947	
31/12/2015	4593,008	-12,13%
30/12/2016	5296,711	15,32%
29/12/2017	6355,654	19,99%
31/12/2018	6194,498	-2,54%
31/12/2019	6299,539	1,70%
31/12/2020	5979,073	-5,09%
31/12/2021	6581,482	10,08%
30/12/2022	6850,619	4,09%
29/12/2023	7272,797	6,16%
	Total	37,59%
	Avrg	4,18%

The market return is calculated by measuring the difference between the current month's Jakarta Composite Index (IHS G_t) and the previous month (IHS G_{t-1}), then dividing by the previous month's IHS G (IHS G_{t-1}), calculated annually over the last 10 years. The result of this calculation is a value of 4.18%, as illustrated in the graph below:

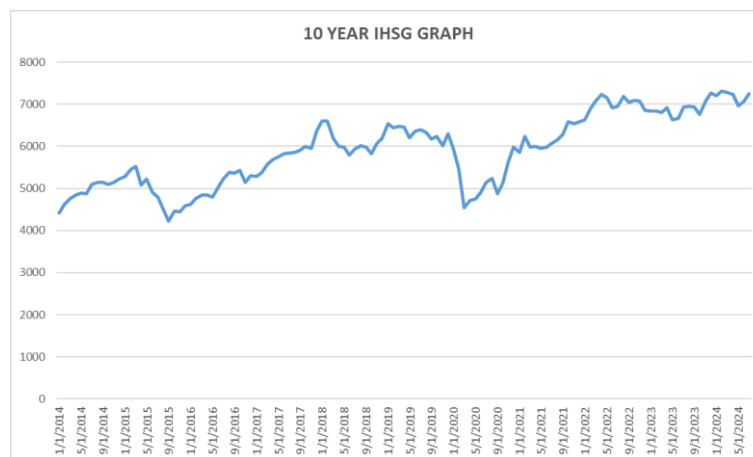


Figure 1. 10 Year IHS G Graph

The individual return of BEKS is calculated by measuring the difference between BEKS's market price in the current month (BEK S_t) and the previous month (BEK S_{t-1}), then dividing it by the previous month's BEKS price (BEK S_{t-1}). This return is calculated annually over the past 10 years. The data is obtained from the Bloomberg terminal, resulting in a value of 6.50%, as in the graph below:

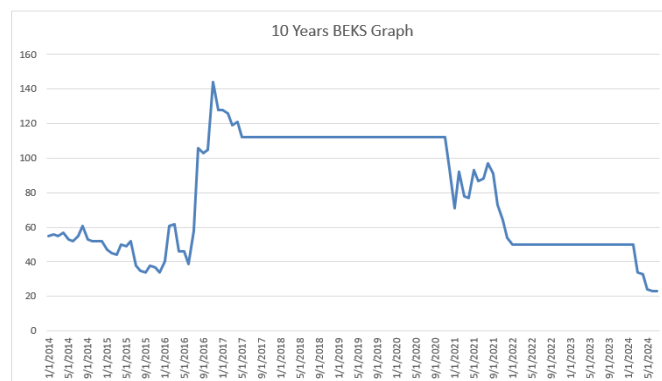


Figure 2. 10 Year BEKS Graph

Periode	Return BEKS
12/31/2014 - 12/29/2023	6,50%

Based on the results of the individual stock return (R_i) and the market return (R_m), we can calculate the stock Beta using the calculations shown in the following table:

Annual R_i	Covariance	Variance	Beta
6,50%	0,000437329	0,001231	0,355394

The next step is to calculate the expected return according to CAPM using the formula:

$$\begin{aligned}
 E(R_i) &= R_f + \beta_i [E(R_m) - R_f] \\
 &= 6,79\% + 0,355 \times 2,6\% \\
 &= 7,72\%
 \end{aligned}$$

Next, calculate the WACC using the following formula:

$$\begin{aligned}
 \text{WACC} &= (W_E \times E(R_i)) + [(W_D \times K_d) \times (1 - T)] \\
 &= (73,3\% \times 7,72\%) + [(26,7\% \times 5,8\%) \times (1 - 25\%)] \\
 &= 6,81\%
 \end{aligned}$$

Table 5. Calculation of the Cost of Equity, Cost of Debt, and WACC

Description	Value
Equity Portion	73,30%
Debt Portion	26,70%
Cost Of Equity:	
Risk Free	6,79%
Risk Premium	2,60%
Beta	0,3550
Cost Of Equity:	7,72%
Cost of Debt	
Interest rate	5,76%
Tax Rate	25%
Cost Of Debt:	4,32%
WACC	6,81%

The final stage involves assessing the value of the target company, PT Bank Pembangunan Daerah Banten Tbk (BEKS), to obtain the valuation results that will be used to formulate an offer to the acquiring company, as presented in Table 6. In this study, the author adopts the Free Cash Flow to the Firm (FCFF) method. The above principles and financial indicators are used to evaluate the cash flow generated by a company entity, taking into account all costs related to operations, investments, and the addition of working capital due to currency exchange. Free Cash Flow to the Firm (FCFF) is a financial metric that measures the cash resources accessible to various stakeholders within the company, including owners, creditors, and other entities involved in the company's operations. The calculation of a company's Free Cash Flow to the Firm (FCFF) includes several key elements: earnings before interest and taxes (EBIT); taxation; depreciation and amortization costs; changes in working capital; and capital costs, particularly capital expenditures. To determine the intrinsic value of the shares of PT Bank Pembangunan Daerah Banten Tbk (BEKS), the following formula as proposed by Damodaran (2002) is necessary:

$$Value\ of\ firm = \sum_{t=1}^{t=n} \frac{CF\ to\ firm}{(1+WACC)^t}$$

The variable "n" represents the lifespan of the asset. "CF to the firm" indicates the anticipated cash flow to the company during period "t". "WACC" stands for the weighted average cost of capital.

Table 6. Projection of Free Cash Flow to the Firm

Target	2024	2025	2026	2027	2028
Free Cash Flow					
EBIT	48.445,0	52.846,7	57.677,1	62.979,8	68.803,2
Taxes	(12.111,2)	(13.211,7)	(14.419,3)	(15.744,9)	(17.200,8)
Deprec. & Amort..	-	-	-	-	-
Gross Capex	(4.523,1)	(5.020,6)	(5.572,9)	(6.185,9)	(6.866,3)
Δ NWC	(395.788,0)	-	-	-	-
Free Cash Flow	(363.977,3)	34.614,5	37.684,9	41.048,9	44.736,1
Period	1,00	1,00	1,00	1,00	1,00
Mid-Year Convention	0,50	1,50	2,50	3,50	4,50
Discount Factor	0,97	0,91	0,85	0,79	0,74
PV FCFF	(352.183,54)	31.357,51	31.962,54	32.596,04	33.259,10
PV (Years 1- 5)	(223.008,3)				
PV (Terminal Value)	899.208,3				
Enterprise Value	676.199,9				
Plus Cash	410.714,0				
Less Debt & Min. Int.	314.514,0				
Equity Value	772.399,9				
Equity Value Per Share	Rp 14,89				
Assumptions:					
WACC	6,81%				
WD	26,7%				
WE	73,3%				
Kd	5,8%				
Marginal Tax Rate	25,0%				
ke = E(Ri)	7,72%				
Rf	6,79%				
Rm - Rf	2,6%				
Beta	0,355				
Terminal Value					
FCF 2028	44.736,1				
Terminal Growth Rate	3,0%				
Terminal Period WACC	6,81%				

Based on the data in Table 6, it is evident that the projected free cash flow of the company is expected to show a positive trend, with a projected increase from a deficit of IDR 363,977.3 million in 2024 to a surplus of IDR 44,736.1 million in 2028. From Table 6, the value of PT Bank Pembangunan Daerah Banten Tbk (BEKS) is IDR 772.399,9 million with an equity per share of IDR 14,89. The equity per share value of BEKS at IDR 14,89 compared to the market stock price of IDR 23 indicates it is overvalued. The acquiring company needs to carefully reconsider BEKS's prospects and negotiate the price before proceeding with the acquisition process.

4. Conclusion

The analysis conducted in this study focuses on the valuation of PT Bank Pembangunan Daerah Banten Tbk (BEKS) in the context of acquisition. The company's financial statements were analyzed and projected for the next five years, assuming growth in interest income and growth in interest expenses. The value of PT Bank Pembangunan Daerah Banten Tbk (BEKS) is IDR 772.399,9 million with an equity per share of IDR 14,89. The equity per share value of BEKS at IDR 14,89 compared to the market stock price of IDR 23 indicates it is overvalued. The acquiring company needs to carefully reconsider BEKS's prospects and negotiate the price before proceeding with the acquisition process.

References

- Fajarini, N., & Heikal, J. (2024). The Reassessment of CAPM Relative Accuracy Comparative Study with Actual Price Movement in Indonesian (2019-2022). *International Journal of Management and Business Applied*, 3(1), 74–93. <https://doi.org/10.54099/ijmba.v3i1.743>
- Hasmalini, N., & Heikal, J. (2023). Capital Asset Pricing Model (CAPM) analysis as a basis decision making to invest in shares in financial sector companies. *Journal of Entrepreneurship, Management, and Industry (JEMI)*, 6(3), 165-174. <https://doi.org/10.36782/jemi.v6i3.2450>
- Indonesia Stock Exchange. (n.d.). Retrieved July 13, 2024, from <https://www.idx.co.id>
- Nugroho, Y. W., & Haekal, J. (2024). Valuation model for the merger & acquisition of PT Bank Harda Internasional Tbk (BBHI) shares by PT Bank Mega Tbk (MEGA). *BUDGETING: Journal of Business, Management and Accounting*, 5(2).
- Otoritas Jasa Keuangan. (2020). Regulation No. 12/POJK.03/2020 on the Consolidation of Commercial Banks. Jakarta, Indonesia: Otoritas Jasa Keuangan.
- Otoritas Jasa Keuangan. (n.d.). Retrieved July 13, 2024, from <https://www.ojk.go.id>
- Reza, N., & Heikal, J. (2024). Evaluating ideal capital structure through WACC and ROA analysis: Research on IDX-listed Indonesian drug retailers and distributors (2019-2023). *International Journal of Scientific Research and Management (IJSRM)*, 12(07), 6872-6881. <https://doi.org/10.18535/ijssrm/v12i07.em15>

Wuryantadi, D., & Heikal, J. (2023). Mergers And Acquisitions Valuation For The Acquisition Of Pt Lippo Karawaci Tbk By Pt Bumi Serpong Damai TBK. *Cerdika: Jurnal Ilmiah Indonesia*, 3(10), 974–981. <https://doi.org/10.59141/cerdika.v3i10.691>