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Three-Way Merger of State-Owned Islamic Banks: A Simulation Approach

Nazim Ullah[1]
International Islamic University Chittagong (IIUC), Bangladesh

Nur Ainna Binti Ramli[2*] **Fauzias Mat Nor**[3] **Junaidah Abu Seman**[4] **Ahmad Fadly Nurullah Bin Rasedee**[5]
Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia (USIM)

***** *Corresponding Author:* nurainna.ramli@usim.edu.my

Abstract

Purpose: The case study aims to analyze the operational performance and stability of the merged bank; the bank Syariah Indonesia (BSI).

Design/methodology/approach: This study uses three models that have been developed by 14 conventional banks and 10 Islamic banks. The models are tested by taking quarter data of 2019 as the pre-merger period and 2020 as the post-merger period (consolidated).

Findings: The findings imply that all models generate positive values for the operational performance and bank stability except for the 3rd quarter of the pre-merger period.

Research limitations/implications: The study uses Indonesia as the context of the study. However, future studies can be conducted including other country and banks adding more years.

Practical implications: This implies that mergers may help build a Sharia'h economy and develop an Islamic finance hub domestically and internationally.

Originality/value: The study conducted mergers and acquisitions at the Islamic finance industry that increased the value of the existing literature.

Keywords: Merger, BSI, Islamic bank, Models, Indonesia

Introduction

Indonesia is one of the countries with the largest Muslim population in the world. The economy of Indonesia is the largest in Southeast Asia and is one of the emerging market economies of the world. As an upper-middle-income country and member of the G20, Indonesia is classified as a newly industrialized country. It is the 15th largest economy in the world by nominal GDP and the 7th largest in terms of GDP (PPP). Estimated at USD40 billion in 2019, Indonesia's Internet economy is expected to cross US$130 billion by 2025. Indonesia depends on the domestic market, government budget spending, and state-owned enterprises (the central government owns 141 enterprises). The administration of prices of a range of basic goods (including rice and electricity) also plays a significant role in Indonesia's market economy.

However, since the 1990s, the majority of the economy has been controlled by individual Indonesians and foreign companies (Nugroho, & Husnadi, 2017).

The Government of Indonesia has taken the initiative to form a mega Islamic bank by merging three Islamic banks (i.e., BRI Syariah, Bank Syariah Mandiri, and BNI Syariah) after considering that Indonesia is the largest Muslim-populated country and realizing the importance of gaining market share of the Islamic banking sector nationally and globally. The government hoped and expected that the merged bank, namely Sharia'h Indonesia, would become an Islamic banking hub for Indonesia and ASEAN.

To develop and improve growth, the company can expand internally and externally. Internally, the company can develop products and innovate, expand its operation, open new branches, and so on (Mahmood, Aamir, Hussain, & Sohail, 2012). Externally, companies can conduct mergers, acquisitions, or consolidation strategies with other companies. Merger and acquisition activities have become an essential alternative for external business expansion (Cartwright and Schoenberg, 2006). A merger is a combination of two or more companies, whereby the resulting company retains the identity of one company, usually bigger (Ullah, 2022; Smirnova, 2014; Gitman and Zutter, 2015) or a combination of two companies where only one company survives while the other is no longer operating. Consolidation differs from the merger. Consolidation is a combination of two or more companies into one new company (Gitman and Zutter, 2015). The difference between consolidation and merger is related to the company itself. In consolidation, if two or more companies join, it will create a new company. On the other hand, a merger between two or more companies will leave only one company.

Bank Syariah Indonesia (BSI) is the largest Indonesian Sharia-compliant bank. The bank was officially launched on 1st February 2021 after merging three state-owned Islamic banks, namely, BRI Syariah, Bank Syariah Mandiri, and BNI Syariah. The total assets of the merged bank are 240 trillion IDR ($17.1b) making it the 7th largest Islamic bank in Asia.

As Sufian, & Habibullah (2009) and Ullah, Nor, & Seman (2021) stated One of the motives for having mergers and acquisitions is to have synergy. One of the ways to gain synergy is through economies of scale and economies of scope. The duplicated branches can be reduced to gain economies of scale through mergers and acquisitions. The Islamic banking industry has been expanded with increasing market share and hence they gaining economies of scope. The merged entity can serve as an Islamic banking hub for Indonesia and ASEAN. According to Kartiko Wiroatmodjo, deputy minister for state-owned enterprises, Bank Syariah Indonesia is expected to be a catalyst for growth in the country's Islamic finance economy (Ullah, Nor, Abu Seman, Ramli, & Rasedee, 2023a; Ullah, Nor, Seman, Ramli, & Rasedee, (2023b). Furthermore, he added that it will be an adviser for global Sukuk issuance for prospective Indonesian companies. The government expects the bank to serve some 15 million customers as it seeks to develop the country into a Sharia'h finance hub.

The case study starts with an overview of the merged banks. Section 3 reports the results and discussion. The final section provides conclusions and policy recommendations.

Literature Review

The purpose of the merger of Sharia'h banks is to encourage Sharia'h banks to become larger so that they can enter the global market and become a catalyst for the growth of the Sharia'h economy in Indonesia. Other than that, the merger of Sharia'h banks is considered more efficient in raising funds, improving operations, and minimizing spending (Nor, Ullah, Seman, Ramli, & Rasedee, 2022). Through the merger of these Sharia'h banks, Sharia'h banking is expected to continue to grow and contribute to the national economy and become a state-owned bank equal to other state-owned banks. It is beneficial in terms of policy and bank transformation (Republika, 2020).

Merger and acquisition activities are an essential alternative for external business expansion (Cartwright and Schoenberg, 2006; Jensen,1986). Indonesia ended 2020 with record highs in Islamic finance development, with the state of the Global Islamic Economy Report (SGIER) 2020-2021 raising the ranking of Indonesia's Islamic finance industry to 4th from 5th, after Malaysia, Saudi Arabia, and the UAE. The Islamic Finance Development Indicator (IFDI) for 2020 revealed that Indonesia's rankings also rose from 4th to 2nd in Islamic finance development and from 8th to 7th in Islamic financial assets, with the latter increasing 15 percent to US$99 billion.

According to the study of Lommerud, Olsen, & Straume, (2006); and Ullah, Uddin, Rashid, Uddin, & Hasan (2024), Islamic bank's mergers and acquisitions have two main reasons. First, the achievement of scale economies caused by increased synergies between Islamic banks involved in mergers and acquisitions. Second, merger and acquisition activities can change the market structure which can affect the profitability of Islamic banks.

Natt et al. (2007) in Kandil and Chowdhury (2014) state that mergers and acquisitions are significant for Islamic banks to grow quickly and profitably because they can create economies of scale or scope so that firms can have better access to capital markets then decrease costs of capital as a financial benefit. Kandil and Chowdhury (2014), ROI and ROE on the merger and acquisition of Islamic banks are higher than conventional banking. In their research on Islamic banks in Pakistan, Mahmood et al. (2012) in Kandil and Chowdhury (2014) showed significant evidence that the primary objective of the Islamic banking business sector in mergers and acquisitions is to enlarge synergies. The merger and acquisition activities of the Islamic banking sector are considered more on the macroeconomic level compared to microeconomics (Uddin, Ullah, Rashid, & Chowdhury, 2024).

The study's main purpose is to analyze operational performance and bank stability for the merged bank; bank Syariah Indonesia (BSI) by using the models that have been developed by 14 conventional banks and 10 Islamic banks.

There are a number of theories used to explain M&A. The theories are divided into value creation theory (e.g., efficiency theory, Diversification of risk theory, Coinsurance effect theories, Merger and debt capacity, Tax benefit theory, Agency theory, Asymmetric information theory, Perfectly competitive theory, Acquisition market theory, Monopolistic theory of acquisition, Managerial discretion theory, Raider theory, Valuation theory, Process theory, Disturbance theory etc.) and value reduction theory (e.g., Free cash flow hypothesis, Managerial discretion theory, Managerial entrancement theory, Hubris theory, Empire building theory, Agency theory, Economic theory). We have discussed the following theories and hypotheses (Lang, Stulz, & Walkling, 1991).

The efficiency theory of merger has been applied by [Daniya, Onotu, & Abdulrahaman (2016); and Weitzel & McCarthy (2011)]. The theory explains that the execution of M&A is to have better performance. Hence this is the main motive for having M&A. Moreover, this theory links between M&A and performance.

Within the sphere of the banking sector, many studies have used resource dependence theory (RDT). Resource Dependency Theory (RDT) is defined as an explanation of how the external resources (i.e., skilled workers, total assets, money, technology, raw materials, etc.) of an organization affect the organization's behavior. Nair, Trendowski & Judge (2008) claim that a firm's resources consist of tangible assets, human and other intangible assets that produce productive services planned by the firm. Based on this theory, it is concluded that there is a link between the M&A and banking sectors. Banks can integrate resources such as total assets, total deposits, and operating income after mergers.

A bank is a financial institution that works as an intermediary between depositors and economic agents. Hence this study includes the theory of financial Intermediation. This theory indicates that the function of the bank is to take deposits and give loans to the economic agents. Based on the study of Ullah, Mat Nor, Abu Seman, & Uddin (2018), the bank performs the financial intermediary role and non-financial intermediary role as well. Therefore, this study includes the theory of financial intermediation. A bank's intermediary role is represented by economies of scale (cost to income) and economies of scope (loan to deposit) (Scholtens, & Van Wensveen, 2000; Weitzel, & McCarthy, 2011).

Theoretical Framework

Figure 1 states the framework of M&A. The framework has been designed and developed for M&A in the banking sector. It links factors of M&A to the banking sector. This includes several factors influencing M&A such as bank size, intermediary role, bank-specific variables, and macro-economic variables. All the factors influencing M&A impact the bank's performance and stability.

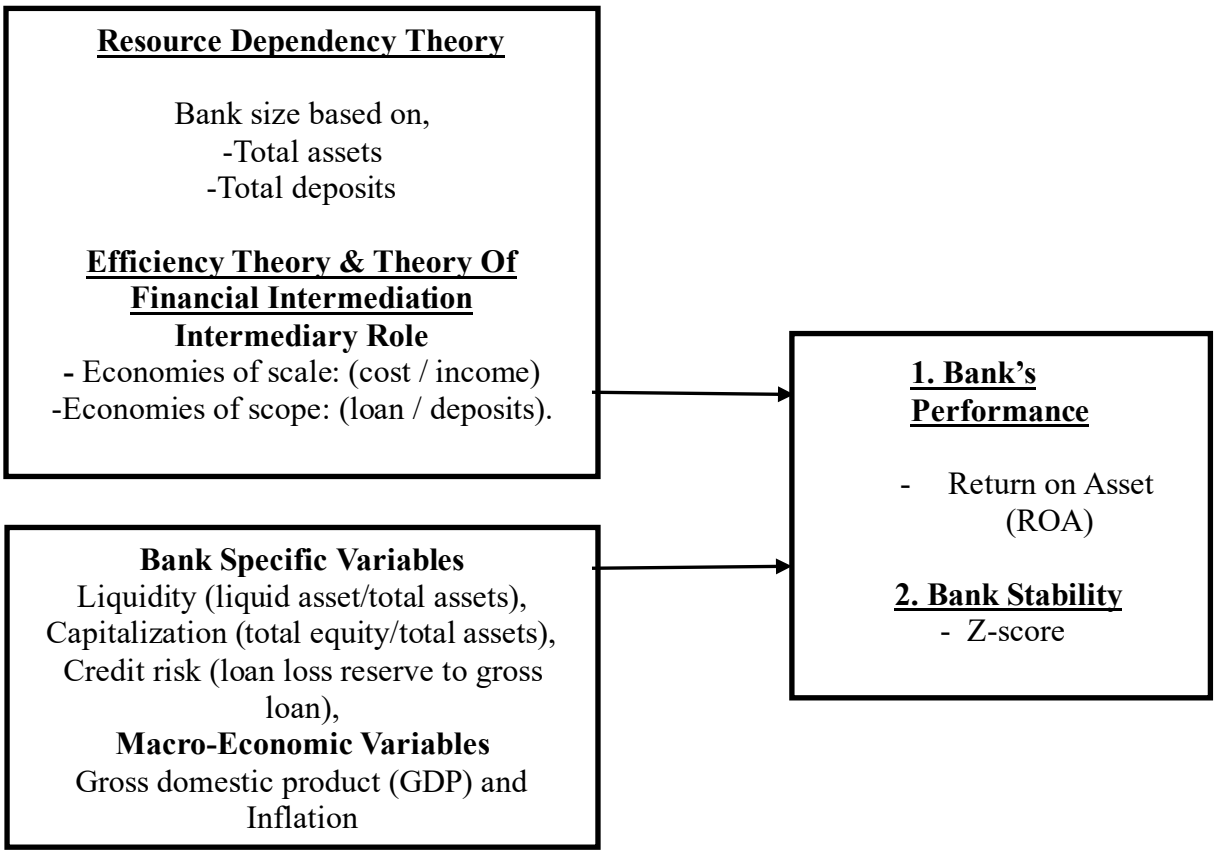

Figure 1: Theoretical Farmwork

Models

The models have been developed using 24 M&A banks that consist of 14 conventional banks and 10 Islamic banks. Model-1 states for the pre-merger, Model-2 is for the post-merger and Model-3 is for the pre & post-merger. Data is collected from the Fitchconnect and World Bank database for the years 2019 and 2020. 2019 is taken as the pre-merger year while 2020 is the post-merger year. Quarterly data was collected from Q1 to Q3 for 2019 & 2020. Q4 is not included in the study since the values are missing.

Return on asset (ROA)

$$ROA_{nt} = \alpha_{nt} + \beta_1 BSTA_{nt} + \beta_2 BSTD_{nt} + \beta_3 Escale_{nt} + \beta_4 Escope_{nt} + \beta_5 LIDY_{nt} + \beta_6 CAP_{nt} + \beta_7 CR_{nt} + \beta_8 GDP_{nt} + \beta_9 INF_{nt} + \varepsilon_{nt} \quad \text{(Eq 1)}$$

Model 1: Pre-merger impact on bank's performance

$$ROA_{nt} = 23.14\alpha_{nt} + (-1.057\ BSTA_{nt}) + (-0.00828 BSTD_{nt}) + 0.0327 Escale_{nt} + (-0.00190 Escope_{nt}) + 0.0229 LIDY_{nt} + 0.132\ CAP_{nt} + (-0.383 CR_{nt}) + (-0.511 GDP_{nt}) + (-0.922\ INF_{nt}) + \varepsilon_{nt} \quad \text{(Eq.2)}$$

Model 2: Post-merger impact on bank's performance

$ROA_{nt} = -15.78\alpha_{nt} + (-0.502BSTA_{nt}) + 0.541BSTD_{nt} + (-0.035Escale_{nt}) + 0.0168Escope_{nt} + 0.0154LIDY_{nt} + 0.0440CAP_{nt} + (-0.109CR_{nt}) + (-0.221GDP_{nt}) + 8.860\ INF_{nt} + \varepsilon_{nt}$……(Eq.3)

Model 3: Pre & Post-merger impact on bank's performance

$ROA_{nt} = -10.26\alpha_{nt} + 0.172\ BSTA_{nt} + (-0.461BSTD_{nt}) + (-0.0310Escale_{nt}) + 0.00464Escope_{nt} + 0.0271LIDY_{nt} + 0.140CAP_{nt} + (-0.0699CR_{nt}) + 0.179GDP_{nt} + 4.997INF_{nt} + \varepsilon_{nt}$ ……..…….(Eq.4)

Bank Stability (Z-score)

$Z\text{-score}_{nt} = \alpha_{nt} + \beta_1 BSTA_{nt} + \beta_2 BSTD_{nt} + \beta_3 Escale_{nt} + \beta_4 Escope_{nt} + \beta_5 LIDY_{nt} + \beta_6 CAP_{nt} + \beta_7 CR_{nt} + \beta_8 GDP_{nt} + \beta_9 INF_{nt} + \varepsilon_{nt}$ ..... (Eq 5)

Model 1: Pre-merger impact on bank stability

$Z\text{-score} = 7.578\ \alpha_{nt} + 0.0712BSTA_{nt} + 0.222BSTD_{nt} + (-0.0083Escale_{nt}) + 0.00398Escope_{nt} + 0.00613LIDY_{nt} + (-0.00198CAP_{nt}) + 0.0256CR_{nt} + 0.554GDP_{nt} + (-5.641INF_{nt}) + \varepsilon_{nt}$ ……....(Eq.6)

Model 2: Post-merger impact on bank stability

$Z\text{-score} = -17.67\ \alpha_{nt} + 0.192BSTA_{nt} + 0.0703BSTD_{nt} + (-0.013Escale_{nt}) + (-0.003958Escope_{nt}) + 0.0256LIDY_{nt} + 0.0189CAP_{nt} + (-0.00698CR_{nt}) + 0.357GDP_{nt} + 8.284INF_{nt} + \varepsilon_{nt}$ ……(Eq.7)

Model 3: Pre & Post-merger impact on bank stability

$Z\text{-score} = -7.053\alpha_{nt} + 0.270BSTA_{nt} + (-0.0863BSTD_{nt}) + 0.00129Escale_{nt} + 0.00660Escope_{nt} + 0.0271LIDY_{nt} + 0.0323CAP_{nt} + (-0.0403CR_{nt}) + 0.393GDP_{nt} + 2.344INF_{nt} + \varepsilon_{nt}$……(Eq.8)

Whereas,
α; constant term,
β; coefficient for other variables,
ROA; return on asset,
Z-score; bank stability,
BSTA; bank size – total assets,
BSTD; bank size-total deposits
Escale; cost to income ratio,
Escope; loan to total deposits,
LIDY; liquid asset to total assets,

CAP; equity to total assets,
CR; loan loss reserve to gross loan,
GDP; gross domestic product,
INF; inflation, and
ε; error term

Findings

Table 1: Operational Performance (ROA) and Bank Stability (Z-score) for PT BNI Syariah

Model	Period	Pre-Merger Period		Post-Merger Period (Consolidated)	
		Operational Performance (ROA)	Bank Stability (Z-score)	Operational Performance (ROA)	Bank Stability (Z-score)
Model-1	Q1	13.323	23.513	12.115	28.190
Model-2	Q1	1.145	2.575	7.928	9.405
Model-3	Q1	-1.532	1.853	2.517	3.913
Model-1	Q2	13.267	23.549	12.019	28.183
Model-2	Q2	1.328	2.642	7.958	9.350
Model-3	Q2	-1.383	1.881	2.506	3.835
Model-1	Q3	13.324	23.564	11.782	28.268
Model-2	Q3	1.270	2.784	8.342	9.502
Model-3	Q3	-1.325	1.980	2.824	3.853

Notes: Pre-merger (2019) and post-merger (consolidated) (2020), Q1; model-1; pre-merger, model-2; post-merger, and model-3; pre & post-merger, 1st quarter, Q2; 2nd quarter and Q3; 3rd quarter.

Table 2: Operational Performance (ROA) And Bank Stability (Z-score) For PT BSM Syariah

		Pre-Merger Period		Post Merger Period (Consolidated)	
Model	**Period**	**Operational Performance (ROA)**	**Bank Stability (Z-score)**	**Operational Performance (ROA)**	**Bank Stability (Z-score)**
Model-1	Q1	12.579	23.688	11.106	28.444
Model-2	Q1	1.283	2.808	8.471	9.721`
Model-3	Q1	-1.657	1.944	2.697	3.989
Model-1	Q2	12.567	23.72	11.114	28.411
Model-2	Q2	1.337	2.913	8.455	9.62
Model-3	Q2	-1.559	2.041	2.639	3.881
Model-1	Q3	12.347	23.693	11.448	1.29
Model-2	Q3	1.241	2.782	8.488	9.632
Model-3	Q3	-1.701	1.871	2.631	3.939

Notes: Pre-merger (2019) and post-merger (consolidated) (2020), Q1; model-1; pre-merger, model-2; post-merger, and model-3; pre & post-merger, 1st quarter, Q2; 2nd quarter and Q3; 3rd quarter.

Table 3: Operational Performance (ROA) and Bank Stability (Z-score) for PT BRI Syariah

		Pre-Merger Period		Post-Merger Period (Consolidated)	
Model	**Period**	**Operational Performance (ROA)**	**Bank Stability (Z-score)**	**Operational Performance (ROA)**	**Bank Stability (Z-score)**
Model-1	Q1	14.228	23.372	11.964	28.204
Model-2	Q1	1.029	2.418	8.126	9.305
Model-3	Q1	-1.341	1.870	2.393	3.798
Model-1	Q2	14.539	23.385	12.221	28.229
Model-2	Q2	1.164	2.567	8.378	9.395
Model-3	Q2	-1.107	2.007	2.683	3.920
Model-1	Q3	14.201	1.290	12.268	1.290
Model-2	Q3	1.036	2.638	8.357	9.307
Model-3	Q3	-1.166	2.022	2.854	3.836

Notes: Pre-merger (2019) and post-merger (consolidated) (2020), Q1; model-1; pre-merger, model-2; post-merger, and model-3; pre & post-merger, 1st quarter, Q2; 2nd quarter and Q3; 3rd quarter.

Discussions

This study simulates the variables of the three banks namely PT BNI Syariah, PT BSM Syariah and PT BRI Sharia'h with three models. Three models are Model-1 for pre-merger, Model-2 for post-merger, and Model-3 for pre- & post-merger for 2019 and 2020. The simulation results are reported in Appendix Tables A1 to A6 for PT BNI Syariah, PT BSM Syariah, and PT BRI Syariah respectively. The summary of the simulation results is shown in Table 3.1, Table 3.2, and Table 3.3 respectively. The results are divided into pre-merger period and post-merger period. In the pre-merger period, simulation results in Q1 and Q2 for the three models are positive while Q3 does not show positive values for the three banks. On the other hand, all models in all quarters show positive values for the three banks in the post-merger period. The results are robust for the three models among the three banks. Therefore, based on the findings it can be implied that the merger plan is beneficial. It is expected that BSI may become a larger Islamic finance hub for the national and international markets.

Conclusions and Recommendations

Bank Syariah Indonesia (BSI) is the recently merged bank of three (3) state-owned Islamic banks. BSI would be the biggest Sharia-compliant bank in Indonesia and the 7th largest Islamic bank in Asia. The study uses three models that have been developed by 14 conventional banks and 10 Islamic banks. The models are tested by taking the quarterly data of 2019 as the pre-merger period and the year 2020 as the post-merger period (consolidated). Return on asset (ROA) is used to represent operational performance, while Z-score is used to represent bank stability. The findings imply that all models (i.e., model-1, model-2 & model-3) generate positive operational performance and bank stability values except quarter 3. Notably, in the pre-merger period, all models show a negative impact in quarter 3 for PT BNI Syariah, PT BSM Syariah, and PT BRI Syariah. Therefore, it can be implied that the merger plan is beneficial and helps build a Sharia'h economy and develop an Islamic finance hub for the national and international markets.

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Appendix

Table A1; Simulation on the PT BNI Syariah for Pre-Merger

Model & Quarter	ROA	Z-score	CAP	BSTA	Escope	LIDY	CR	Escale	BSTD	GDP	INF	Constant
Model 1-Q1	1.440	24.274	10.720	7.643	84.250	8.150	2.880	61.310	7.578	4.203	2.030	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	13.322991	1.415	-8.078	-0.160	0.187	-1.103	2.005	-0.063	-2.148	-1.872	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	23.513	-0.021	0.544	0.335	0.050	0.074	-0.509	1.682	2.328	11.451	7.578
Model 2-Q1												
	1.440	24.274	10.720	7.643	84.250	8.150	2.880	61.310	7.578	4.203	2.030	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	1.145642	0.472	-3.837	1.415	0.126	-0.314	-2.146	4.100	-0.929	18.039	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	2.575	0.203	1.467	0.333	0.209	-0.020	-0.797	0.533	1.500	16.817	-17.670
Model 3-Q1	1.440	24.274	10.720	7.643	84.250	8.150	2.880	61.310	7.578	4.203	2.030	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	-1.532019	1.501	1.315	0.391	0.221	-0.201	-1.901	-3.493	0.752	10.144	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	1.853	0.346	2.064	0.556	0.221	-0.116	0.079	-0.654	1.652	4.758	-7.053
Model 1-Q2	1.500	24.413	10.730	7.628	86.520	8.750	2.790	57.750	7.564	4.203	2.030	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	13.267021	1.416	-8.063	-0.164	0.200	-1.069	1.888	-0.063	-2.148	-1.872	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	23.549	-0.021	0.543	0.344	0.054	0.071	-0.479	1.679	2.328	11.451	7.578
Model 2-Q2	1.500	24.413	10.730	7.628	86.520	8.750	2.790	57.750	7.564	4.203	2.030	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	1.3275126	0.472	-3.829	1.454	0.135	-0.304	-2.021	4.092	-0.929	18.039	-15.780

			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	2.642	0.203	1.465	0.342	0.224	-0.019	-0.751	0.532	1.500	16.817	-17.670
Model 3-Q2	1.500	24.413	10.730	7.628	86.520	8.750	2.790	57.750	7.564	4.203	2.030	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	-1.383216	1.502	1.312	0.401	0.237	-0.195	-1.790	-3.487	0.752	10.144	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	1.881	0.347	2.060	0.571	0.237	-0.112	0.074	-0.653	1.652	4.758	-7.053
Model 1-Q3	1.290	22.437	9.950	7.643	75.870	15.790	2.720	56.780	7.589	4.203	2.030	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	13.324382	1.313	-8.079	-0.144	0.362	-1.042	1.857	-0.063	-2.148	-1.872	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	23.564	-0.020	0.544	0.302	0.097	0.070	-0.471	1.685	2.328	11.451	7.578
Model 2-Q3	1.290	22.437	9.950	7.643	75.870	15.790	2.720	56.780	7.589	4.203	2.030	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	1.2700984	0.438	-3.837	1.275	0.243	-0.296	-1.987	4.106	-0.929	18.039	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	2.784	0.188	1.468	0.300	0.404	-0.019	-0.738	0.534	1.500	16.817	-17.670
Model 3-Q3	1.290	22.437	9.950	7.643	75.870	15.790	2.720	56.780	7.589	4.203	2.030	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	-1.324928	1.393	1.315	0.352	0.428	-0.190	-1.760	-3.498	0.752	10.144	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	1.980	0.321	2.064	0.501	0.428	-0.110	0.073	-0.655	1.652	4.758	-7.053

Table A2; Simulation on the PT BNI Syariah for Post-M&A

Models & Quater	ROA	Z-score	CAP	BSTA	Escope	LIDY	CR	Escale	BSTD	GDP	INF	Constant
Model 1-Q1	1.010	30.429	10.270	7.719	70.330	16.410	3.810	59.910	7.663	4.500	2.820	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	12.11538	1.356	-8.159	-0.134	0.376	-1.459	1.959	-0.063	-2.300	-2.600	23.140
Model 2-Q1	1.010	30.429	10.270	7.719	70.330	16.410	3.810	59.910	7.663	4.500	2.820	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	7.9285688	0.452	-3.875	1.182	0.253	-0.415	-2.097	4.146	-0.995	25.059	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	9.405	0.194	1.482	0.278	0.420	-0.027	-0.779	0.539	1.607	23.361	-17.670
Model 3-Q1	1.010	30.429	10.270	7.719	70.330	16.410	3.810	59.910	7.663	4.500	2.820	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	2.5174765	1.438	1.328	0.326	0.445	-0.266	-1.857	-3.533	0.806	14.092	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	3.913	0.332	2.084	0.464	0.445	-0.154	0.077	-0.661	1.769	6.610	-7.053
Model 1-Q2	1.060	30.672	10.310	7.706	71.340	13.350	3.780	58.230	7.643	4.500	2.820	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	12.019872	1.361	-8.145	-0.136	0.306	-1.448	1.904	-0.063	-2.300	-2.600	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	28.183	-0.020	0.549	0.284	0.082	0.097	-0.483	1.697	2.493	15.908	7.578
Model 2-Q2	1.060	30.672	10.310	7.706	71.340	13.350	3.780	58.230	7.643	4.500	2.820	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	7.9581313	0.454	-3.868	1.199	0.206	-0.412	-2.038	4.135	-0.995	25.059	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	9.350	0.195	1.479	0.282	0.342	-0.026	-0.757	0.537	1.607	23.361	-17.670
Model 3-Q2	1.060	30.672	10.310	7.706	71.340	13.350	3.780	58.230	7.643	4.500	2.820	

			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	2.5060218	1.443	1.325	0.331	0.362	-0.264	-1.805	-3.523	0.806	14.092	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	3.835	0.333	2.081	0.471	0.362	-0.152	0.075	-0.660	1.769	6.610	-7.053
Model 1-Q3	1.700	31.940	10.140	7.709	71.600	14.280	3.550	48.420	7.654	4.500	2.820	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	11.782169	1.338	-8.148	-0.136	0.327	-1.360	1.583	-0.063	-2.300	-2.600	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	28.268	-0.020	0.549	0.285	0.088	0.091	-0.402	1.699	2.493	15.908	7.578
Model 2-Q3	1.700	31.940	10.140	7.709	71.600	14.280	3.550	48.420	7.654	4.500	2.820	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	8.3423571	0.446	-3.870	1.203	0.220	-0.387	-1.695	4.141	-0.995	25.059	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	9.502	0.192	1.480	0.283	0.366	-0.025	-0.629	0.538	1.607	23.361	-17.670
Model 3-Q3	1.700	31.940	10.140	7.709	71.600	14.280	3.550	48.420	7.654	4.500	2.820	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	2.8241098	1.420	1.326	0.332	0.387	-0.248	-1.501	-3.528	0.806	14.092	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	3.853	0.328	2.081	0.473	0.387	-0.143	0.062	-0.661	1.769	6.610	-7.053

Notes: ROA; return on assets, Z-score; bank stability, CAP; capitalization, BSTA; bank size total assets, Escope; economies of scope, LIDY; liquidity, CR; credit risk, Escale; economies of scale, BSTD; bank size total deposits, GDP; gross domestics products, and INF; inflation.

Table A3; Simulation on the PT BSM for Pre Merger

Model & Quater	ROA	Z-score	CAP	BSTA	Escope	LIDY	CR	Escale	BSTD	GDP	INF	Constant
Model 1-Q1	1.160	19.503	8.610	8.012	80.760	12.670	2.870	55.650	7.959	4.203	2.030	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	12.57985	1.137	-8.469	-0.153	0.290	-1.099	1.820	-0.066	-2.148	-1.872	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	23.68878	-0.017	0.570	0.321	0.078	0.073	-0.462	1.767	2.328	11.451	7.578
Model 2-Q1	1.160	19.503	8.610	8.012	80.760	12.670	2.870	55.650	7.959	4.203	2.030	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	1.283942	0.379	-4.022	1.357	0.195	-0.313	-1.948	4.306	-0.929	18.039	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	2.80809	0.163	1.538	0.320	0.324	-0.020	-0.723	0.560	1.500	16.817	-17.670
Model 3-Q1	1.160	19.503	8.610	8.012	80.760	12.670	2.870	55.650	7.959	4.203	2.030	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	-1.65729	1.205	1.378	0.375	0.343	-0.201	-1.725	-3.669	0.752	10.144	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	1.944034	0.278	2.163	0.533	0.343	-0.116	0.072	-0.687	1.652	4.758	-7.053
Model 1-Q2	1.120	19.084	8.440	8.004	80.920	16.760	3.060	55.070	7.944	4.203	2.030	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	12.56713	1.114	-8.461	-0.154	0.384	-1.172	1.801	-0.066	-2.148	-1.872	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	23.72059	-0.017	0.570	0.322	0.103	0.078	-0.457	1.764	2.328	11.451	7.578
Model 2-Q2	1.120	19.084	8.440	8.004	80.920	16.760	3.060	55.070	7.944	4.203	2.030	

			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	1.337271	0.371	-4.018	1.359	0.258	-0.334	-1.927	4.298	-0.929	18.039	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	2.913908	0.160	1.537	0.320	0.429	-0.021	-0.716	0.558	1.500	16.817	-17.670
Model 3-Q2	1.120	19.084	8.440	8.004	80.920	16.760	3.060	55.070	7.944	4.203	2.030	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	-1.55908	1.182	1.377	0.375	0.454	-0.214	-1.707	-3.662	0.752	10.144	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	2.04131	0.273	2.161	0.534	0.454	-0.123	0.071	-0.686	1.652	4.758	-7.053
Model 1-Q3	1.000	18.644	8.340	7.994	78.630	11.580	3.230	53.910	7.943	4.203	2.030	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	12.34794	1.101	-8.449	-0.149	0.265	-1.237	1.763	-0.066	-2.148	-1.872	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	23.693	-0.017	0.569	0.313	0.071	0.083	-0.447	1.763	2.328	11.451	7.578
Model 2-Q3	1.000	18.644	8.340	7.994	78.630	11.580	3.230	53.910	7.943	4.203	2.030	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	1.241664	0.367	-4.013	1.321	0.178	-0.352	-1.887	4.297	-0.929	18.039	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	2.782132	0.158	1.535	0.311	0.296	-0.023	-0.701	0.558	1.500	16.817	-17.670
Model 3-Q3	1.000	18.644	8.340	7.994	78.630	11.580	3.230	53.910	7.943	4.203	2.030	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	-1.7015	1.168	1.375	0.365	0.314	-0.226	-1.671	-3.662	0.752	10.144	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053

	Z-score	1.871416	0.269	2.158	0.519	0.314	-0.130	0.070	-0.686	1.652	4.758	-7.053

Table A4; Simulation on the PT BSM for Post Merger

Model & Quater	ROA	Z-score	CAP	BSTA	Escope	LIDY	CR	Escale	BSTD	GDP	INF	Constant
Model 1-Q1	1.240	26.652	8.640	8.077	74.230	18.460	3.780	45.730	8.028	4.500	2.820	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	11.1063	1.140	-8.537	-0.141	0.423	-1.448	1.495	-0.066	-2.300	-2.600	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	28.44465	-0.017	0.575	0.295	0.113	0.097	-0.380	1.782	2.493	15.908	7.578
Model 2-Q1	1.240	26.652	8.640	8.077	74.230	18.460	3.780	45.730	8.028	4.500	2.820	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	8.471461	0.380	-4.055	1.247	0.284	-0.412	-1.601	4.343	-0.995	25.059	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	9.72136	0.163	1.551	0.294	0.473	-0.026	-0.594	0.564	1.607	23.361	-17.670
Model 3-Q1	1.240	26.652	8.640	8.077	74.230	18.460	3.780	45.730	8.028	4.500	2.820	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	2.697783	1.210	1.389	0.344	0.500	-0.264	-1.418	-3.701	0.806	14.092	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	3.989486	0.279	2.181	0.490	0.500	-0.152	0.059	-0.693	1.769	6.610	-7.053
Model 1-Q2	1.270	26.949	8.720	8.058	73.770	14.290	3.530	45.000	8.010	4.500	2.820	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	11.114	1.151	-8.518	-0.140	0.327	-1.352	1.472	-0.066	-2.300	-2.600	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	28.41139	-0.017	0.574	0.294	0.088	0.090	-0.374	1.778	2.493	15.908	7.578

Model 2-Q2	1.270	26.949	8.720	8.058	73.770	14.290	3.530	45.000	8.010	4.500	2.820	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	8.45538	0.384	-4.045	1.239	0.220	-0.385	-1.575	4.333	-0.995	25.059	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	9.620672	0.165	1.547	0.292	0.366	-0.025	-0.585	0.563	1.607	23.361	-17.670
Model 3-Q2	1.270	26.949	8.720	8.058	73.770	14.290	3.530	45.000	8.010	4.500	2.820	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	2.63911	1.221	1.386	0.342	0.387	-0.247	-1.395	-3.693	0.806	14.092	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	3.881686	0.282	2.176	0.487	0.387	-0.142	0.058	-0.691	1.769	6.610	-7.053
Model 1-Q3	1.300	26.113	8.380	8.060	73.690	15.590	2.750	46.580	8.011	4.500	2.820	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	11.44806	1.106	-8.519	-0.140	0.357	-1.053	1.523	-0.066	-2.300	-2.600	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	1.290	22.437	7.643	75.870	15.790	2.720	56.780	7.589	4.203	2.030	7.578
Model 2-Q3	1.300	26.113	8.380	8.060	73.690	15.590	2.750	46.580	8.011	4.500	2.820	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	8.48847	0.369	-4.046	1.238	0.240	-0.300	-1.630	4.334	-0.995	25.059	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	9.632406	0.158	1.547	0.292	0.399	-0.019	-0.606	0.563	1.607	23.361	-17.670
Model 3-Q3	1.300	26.113	8.380	8.060	73.690	15.590	2.750	46.580	8.011	4.500	2.820	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	2.631871	1.173	1.386	0.342	0.422	-0.192	-1.444	-3.693	0.806	14.092	-10.260

			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	3.939182	0.271	2.176	0.486	0.422	-0.111	0.060	-0.691	1.769	6.610	-7.053

Notes: ROA; return on assets, Z-score; bank stability, CAP; capitalization, BSTA; bank size total assets, Escope; economies of scope, LIDY; liquidity, CR; credit risk, Escale; economies of scale, BSTD; bank size total deposits, GDP; gross domestics products, and INF; inflation.

Table A5; Simulation on the PT BRI Syariah for Pre-Merger

Model & Quater	ROA	Z-score	CAP	BSTA	Escope	LIDY	CR	Escale	BSTD	GDP	INF	Constant
Model 1-Q1	0.200	27.727	13.690	7.569	84.620	3.990	2.090	68.250	7.451	4.203	2.030	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	14.228	1.807	-8.000	-0.161	0.091	-0.800	2.232	-0.062	-2.148	-1.872	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	23.372	-0.027	0.539	0.337	0.024	0.054	-0.566	1.654	2.328	11.451	7.578
Model 2-Q1	0.200	27.727	13.690	7.569	84.620	3.990	2.090	68.250	7.451	4.203	2.030	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	1.0299	0.602	-3.800	1.422	0.061	-0.228	-2.389	4.031	-0.929	18.039	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	2.418	0.259	1.453	0.335	0.102	-0.015	-0.887	0.524	1.500	16.817	-17.670
Model 3-Q1	0.200	27.727	13.690	7.569	84.620	3.990	2.090	68.250	7.451	4.203	2.030	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	-1.341	1.917	1.302	0.393	0.108	-0.146	-2.116	-3.435	0.752	10.144	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	1.8703	0.442	2.044	0.558	0.108	-0.084	0.088	-0.643	1.652	4.758	-7.053
Model 1-Q2	0.190	27.807	13.740	7.566	79.440	9.480	1.490	66.300	7.451	4.203	2.030	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	14.539	1.814	-7.997	-0.151	0.217	-0.571	2.168	-0.062	-2.148	-1.872	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	23.385	-0.027	0.539	0.316	0.058	0.038	-0.550	1.654	2.328	11.451	7.578
Model 2-Q2	0.190	27.807	13.740	7.566	79.440	9.480	1.490	66.300	7.451	4.203	2.030	

			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	1.1647	0.605	-3.798	1.335	0.146	-0.162	-2.321	4.031	-0.929	18.039	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	2.5679	0.260	1.453	0.314	0.243	-0.010	-0.862	0.524	1.500	16.817	-17.670
Model 3-Q2	0.190	27.807	13.740	7.566	79.440	9.480	1.490	66.300	7.451	4.203	2.030	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	-1.107	1.924	1.301	0.369	0.257	-0.104	-2.055	-3.435	0.752	10.144	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	2.0074	0.444	2.043	0.524	0.257	-0.060	0.086	-0.643	1.652	4.758	-7.053
Model 1-Q3	0.320	26.809	13.110	7.586	73.870	13.250	2.300	65.690	7.477	4.203	2.030	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	14.201	1.731	-8.019	-0.140	0.303	-0.881	2.148	-0.062	-2.148	-1.872	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	1.290	22.437	7.643	75.870	15.790	2.720	56.780	7.589	4.203	2.030	7.578
Model 2-Q3	0.320	26.809	13.110	7.586	73.870	13.250	2.300	65.690	7.477	4.203	2.030	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	1.0386	0.577	-3.808	1.241	0.204	-0.251	-2.299	4.045	-0.929	18.039	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	2.6385	0.248	1.457	0.292	0.339	-0.016	-0.854	0.526	1.500	16.817	-17.670
Model 3-Q3	0.320	26.809	13.110	7.586	73.870	13.250	2.300	65.690	7.477	4.203	2.030	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	-1.166	1.835	1.305	0.343	0.359	-0.161	-2.036	-3.447	0.752	10.144	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	2.0222	0.423	2.048	0.488	0.359	-0.093	0.085	-0.645	1.652	4.758	-7.053

Table A6; Simulation on the PT BRI Syariah for Post-Merger

Model & Quater	ROA	Z-score	CAP	BSTA	Escope	LIDY	CR	Escale	BSTD	GDP	INF	Constant
Model 1-Q1	0.530	26.895	9.440	7.749	80.360	9.660	3.140	57.050	7.688	4.500	2.820	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	11.964	1.246	-8.191	-0.153	0.221	-1.203	1.866	-0.064	-2.300	-2.600	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	28.204	-0.019	0.552	0.320	0.059	0.080	-0.474	1.707	2.493	15.908	7.578
Model 2-Q1	0.530	26.895	9.440	7.749	80.360	9.660	3.140	57.050	7.688	4.500	2.820	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	8.1286	0.415	-3.890	1.350	0.149	-0.342	-1.997	4.159	-0.995	25.059	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	9.3059	0.178	1.488	0.318	0.247	-0.022	-0.742	0.540	1.607	23.361	-17.670
Model 3-Q1	0.530	26.895	9.440	7.749	80.360	9.660	3.140	57.050	7.688	4.500	2.820	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	2.3937	1.322	1.333	0.373	0.262	-0.219	-1.769	-3.544	0.806	14.092	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	3.7984	0.305	2.092	0.530	0.262	-0.127	0.074	-0.664	1.769	6.610	-7.053
Model 1-Q2	0.520	29.755	10.510	7.695	87.880	11.180	2.950	55.990	7.630	4.500	2.820	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	12.221	1.387	-8.134	-0.167	0.256	-1.130	1.831	-0.063	-2.300	-2.600	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	28.229	-0.021	0.548	0.350	0.069	0.076	-0.465	1.694	2.493	15.908	7.578
Model 2-Q2	0.520	29.755	10.510	7.695	87.880	11.180	2.950	55.990	7.630	4.500	2.820	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	8.3787	0.462	-3.863	1.476	0.172	-0.322	-1.960	4.128	-0.995	25.059	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	9.3955	0.199	1.477	0.348	0.286	-0.021	-0.728	0.536	1.607	23.361	-17.670
Model 3-Q2	0.520	29.755	10.510	7.695	87.880	11.180	2.950	55.990	7.630	4.500	2.820	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260

	ROA	2.6833	1.471	1.324	0.408	0.303	-0.206	-1.736	-3.518	0.806	14.092	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	3.9206	0.339	2.078	0.580	0.303	-0.119	0.072	-0.658	1.769	6.610	-7.053
Model 1-Q3	0.710	34.907	12.230	7.626	87.660	6.950	3.280	55.040	7.519	4.500	2.820	
			0.132	-1.057	-0.002	0.023	-0.383	0.033	-0.008	-0.511	-0.922	23.140
	ROA	12.268	1.614	-8.060	-0.167	0.159	-1.256	1.800	-0.062	-2.300	-2.600	23.140
			-0.002	0.071	0.004	0.006	0.026	-0.008	0.222	0.554	5.641	7.578
	Z-score	1.290	22.437	7.643	75.870	15.790	2.720	56.780	7.589	4.203	2.030	7.578
Model 2-Q3	0.710	34.907	12.230	7.626	87.660	6.950	3.280	55.040	7.519	4.500	2.820	
			0.044	-0.502	0.017	0.015	-0.109	-0.035	0.541	-0.221	8.886	-15.780
	ROA	8.3577	0.538	-3.828	1.473	0.107	-0.358	-1.926	4.068	-0.995	25.059	-15.780
			0.019	0.192	0.004	0.026	-0.007	-0.013	0.070	0.357	8.284	-17.670
	Z-score	9.3077	0.231	1.464	0.347	0.178	-0.023	-0.716	0.529	1.607	23.361	-17.670
Model 3-Q3	0.710	34.907	12.230	7.626	87.660	6.950	3.280	55.040	7.519	4.500	2.820	
			0.140	0.172	0.005	0.027	-0.070	-0.031	-0.461	0.179	4.997	-10.260
	ROA	2.8541	1.712	1.312	0.407	0.188	-0.229	-1.706	-3.466	0.806	14.092	-10.260
			0.032	0.270	0.007	0.027	-0.040	0.001	-0.086	0.393	2.344	-7.053
	Z-score	3.8363	0.395	2.059	0.579	0.188	-0.132	0.071	-0.649	1.769	6.610	-7.053

Notes: ROA; return on assets, Z-score; bank stability, CAP; capitalization, BSTA; bank size total assets, Escope; economies of scope, LIDY; liquidity, CR; credit risk, Escale; economies of scale, BSTD; bank size total deposits, GDP; gross domestics products, and INF; inflation.