

# Did Asset Securitization Affect the Banking Financial Performance?

Gos Ishak, Farah Margaretha Leon, and Bahtiar Usman

## ABSTRACT

This study investigates the impact of asset securitization on banking financial performance. The authors examined the effect between the independent variables (Asset-backed securities (ABS), Loan Loss Provisions (LLP), and Size), and the dependent variable (Return on Assets (ROA), Size has a moderating variable effect on Return on Assets.

The banks improved profitability (ROA) by selling their loans receivable portfolio to the capital market to get liquidity. Furthermore, the bank significantly changed the role of acting as intermediaries between borrowers and depositors for the last decade. The authors used a sample of 12 commercial banks from Southeast Asian Countries and the regression model used for panel data analysis from 1998 to 2018.

The results show that Asset-backed securities have found a significant positive Return on Assets. However, some empirical evidence found that asset securitization increases Profitability decreases Loan Loss Provisions and reduces bank securitization's default risk.

For future research, it is recommended to explore several variables to get a better result bank's financial performance, such as Return on Equity, Debt to Equity Ratio, and Net Interest Margin.

**Keywords:** Securitization, Return on Assets, Asset-backed securities, Banks.

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## I. INTRODUCTION

Securitization occurs when a bank transforms illiquid assets, which are generally held until maturity and transformed into liquid securities. The securitization transactions should have done as originating bank transfers their assets (into one basket) known as a pool into a fixed asset cash flow to Special Purpose Vehicle (SPV) as a legal entity that will buy the securities issued by the bank originating that is guaranteed by the asset to be stored in the pool Asset. The transfer must meet the requirements as a "true sale", further, the bank selling the asset must fully surrender their rights to the SPV and record the assets sold through asset securitization and must be issued from the bank's financial statements [2].

Asset securitization carries a large risk if it is not managed properly, as a result, in reducing credit risk from investors, the banks sell their asset must increase the credit rating of the Asset-backed securities (ABS) and mitigate the bad loans' problem that will arise on the credit quality of the asset collateral (underlying assets) as well as investors and SPV. The originating banks are responsible for improving asset quality and other parties in the contract. For example, a contract agreement includes interest income and asset transfers such as improved credit rating and availability letters of credit (LC) in securitization. Non-contract agreement or also called implicit recourse (unwritten agreement), including:

1. Sale of assets at a discount to SPV.
2. Likewise, for the purchase of assets to SPV, a discount is given at an attractive price.
3. A smooth exchange of assets to an exchange of substandard assets at SPV.
4. Better credit enhancement funding contractual agreements [2].

Companies seek funds through asset securitization with the consideration that selling assets through asset securitization can reduce financial costs, sell securities with high credit quality can save capital, based on the provisions of the capital market the company can sell assets by selling out (true sale) and according to the accounting system it can reduce the company's capital requirements [10].

## II. LITERATURE REVIEW

Empirical evidence in the research, how asset securitization affects the performance of bank profitability and securitization risk. To analyze the efficiency of risk and the rate of return, and the trade-off with the asset portfolio consistently in accordance with the principle of diversification. Furthermore, if the yield increases and reduces the risk of securitization and concludes that the securitization of assets gives a positive performance. The effect of a diversified portfolio will increase financial performance (profit) and reduce the risk [11].

Asset Securitization can be processed with various types of loans that are pooled together and can be sold to investors. Investors will receive regular payments, including interest and principal underlying assets. The securitization process has undergone changes to bank services as intermediaries between borrowers and depositors. Conventional borrowers explain how to extend a loan to maturity and further explain that securitization provides more benefits to financial institutions, for example, banks and other types of financial institutions were illiquid assets can be transformed into capital market instruments, namely securitization (into liquid assets) as an alternative source of funding. Furthermore, banks can diversify their products and reduce dependence on deposits (third-party funds) so that they can automatically reduce the cost of financial distress. In addition, increase bank liquidity can reduce insolvency, and increase asset turnover will improve profitability. For institutional investors, asset securitization is an alternative to product capital markets such as corporate government bonds that offer a variety of diversified portfolios to get higher yields [6].

**A. The Benefit of Special Purpose Vehicle (SPV) in Asset Securitization**

There are two important benefits of Special Purpose Vehicle (SPV), as follows: First, SPV represents the parties concerned in the SPV process. Second, transactions that are realized through the sale of assets or known as “true sale” by the originator (issuing bank) to SPV as an independent and independent institution that separates company assets and risks. Therefore, investors expect and depend on returns (income), especially on the risk of cash flow guaranteed by pool assets, not the default risk of the originator (issuing bank) [5].

Furthermore, under securitization transaction, it is carried out by transferring assets from the originator (bank) to the Special Purpose Vehicle (SPV), which is issue securities in debt instruments and next to be placed on the capital market through a public offering (Fig. 1).

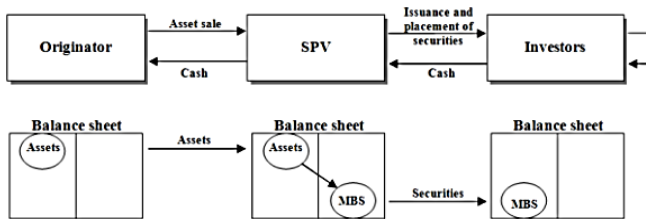


Fig. 1. The Securitization Process.

(Source: João M. Pinto, Paulo P. Alves, 2016. The Economics of Securitization: Evidence from the European markets).

**B. Hypothesis Development**

- H1: There is an effect of Asset-backed securities (ABS) on Return on Assets (ROA).
- H2: There is an effect of Loan Loss Provisions (LLP) on Return on Assets (ROA).
- H3: There is an effect of Size moderating on Return on Assets (ROA).
- H4: There is an effect of Asset-backed securities (ABS) after the moderating variable Size is given to Return on Assets (ROA).

H5: There is an effect of Loan Loss Provisions (LLP) after the moderating variable Size is given to Return on Assets (ROA).

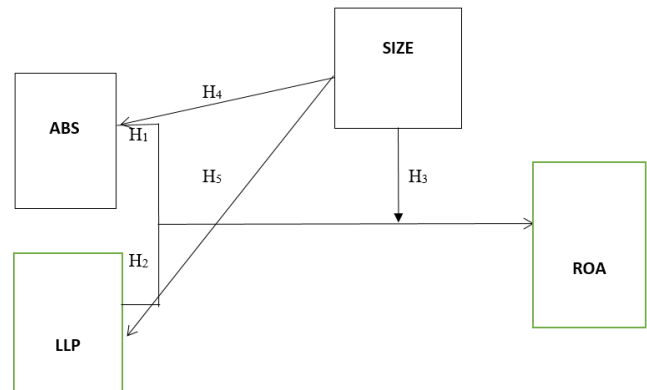


Fig. 2. Research Model.

**III. METHODOLOGY**

The purpose of the study is to investigate the Asset-backed securities and Loan Loss Provisions against Size has a moderating variable effect on Return on Assets of a bank’s financial performance. Two important issues in asset securitization First, Asset-backed securitization (ABS) and Loan Loss Provisions (LLP), Size has a moderating variable effect on Return on Assets (ROA). Second, banks improved profitability by securitizing their loan receivables, to get liquidity from the capital market. For this purpose, we used a sample of 12 commercial banks in Southeast Asian Countries (including Indonesia, Singapore, Thailand, Malaysia, and the Philippines). A data panel regression model used during the period of 1998-2018. The authors used the following regression equation, as follows:

**Model 1:**

$$ROA = \beta_0 + \beta_1 ABS + \beta_2 LLP + \beta_3 Size + \epsilon_i$$

**Model 2:**

$$ROA = \beta_0 + \beta_1 ABS + \beta_2 LLP + \beta_3 Size + \beta_4 ABS * SIZE + \beta_5 LLP * SIZE + \epsilon_i$$

**IV. RESULTS AND DISCUSSION**

**Separation of Two Businesses: Origination and Lending**

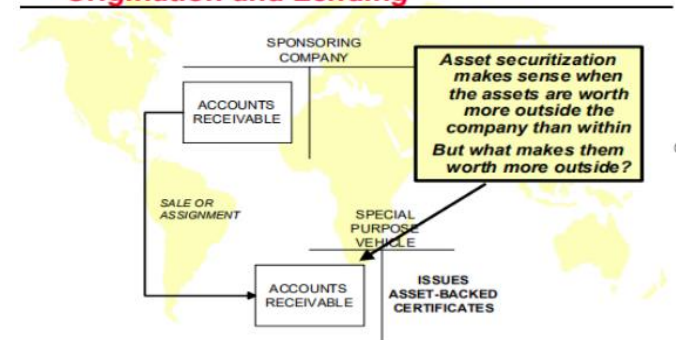


Fig. 3. Cost and Benefit of Securitization Analysis (Without Securitization vs Securitization). (Source: Asset Securitization: Cost-Benefit Analysis, Giddy Ian, Stern School of Business New York University).

### Sample Cost/Benefit Analysis

	With securitization	Without securitization
Portfolio yield	18.50%	18.50%
Funding cost	-7.22%	-9.00%
Default rate	-5.00%	-5.50%
Amortized upfront issuance costs	-0.10%	-0.05%
Amortized upfront securitization costs	-0.20%	
Annual costs of guarantees and credit lines	-0.25%	
Annual additional costs (systems, reporting, trustee fees, etc)	-0.25%	
Effect on sponsor's marginal cost of capital	0.00%	
<b>Profits</b>	<b>5.48%</b>	<b>3.95%</b>
Net savings from securitization	1.53% per annum	

Fig. 4. Sample Cost and Benefit Analysis. (Source: *Asset Securitization: Cost-Benefit Analysis*, Giddy Ian, Stern School of Business New York University).

TABLE 1: BENEFITS OF SECURITIZATION FOR NON-BANK CORPORATIONS, BANKS, AND INVESTORS

Benefits of Securitization for Non- Bank Corporations and Banks	Benefits of Securitization for Investors
<ul style="list-style-type: none"> <li>● Increase ROA (Profitability).</li> <li>● Remove assets from financial statements.</li> <li>● Cheaper financing.</li> <li>● Maintain competitive advantage.</li> <li>● Confidentiality.</li> <li>● Advantages (disadvantages) are more transparent.</li> <li>● Improve the asset and liability management.</li> <li>● Upfront fees for originators.</li> </ul>	<ul style="list-style-type: none"> <li>● Improve profitability.</li> <li>● Increase liquidity.</li> <li>● Portfolio diversification.</li> <li>● Low risk.</li> </ul>

(Source: *Asset Securitization: Cost-Benefit Analysis*, Giddy Ian, Stern School of Business New York University).

TABLE 3: THE RESULTS OF REGRESSION ANALYSIS  
Dependent Variable-Return on Assets (ROA)

Variable	Model 1		Model 2	
	Coefficient	Probability	Coefficient	Probability
Asset Backed Securities	6.88E-11	0.0145		
Loan Loss Provisions	0.072341	0.4503		
Size	-1.60E-11	0.6106		
Asset Backed Securities Size			-4.85E-20	0.0252
Loan Loss Provisions Size			-1.20E-10	0.2182
Adjusted R-squared		0.918482		
Probability (F-statistic)		0.000000		

The Return on Assets (ROA) variable has an average of 0.02849 and a standard deviation of 0.046706. The lowest value of Return on Assets was -0.01 and the highest value was 0.205. The variable Return on Assets (ROA) is the company's ability to maximize its assets to generate profits.

The Asset – backed securities (ABS) variable has an average of 1.13E+08 and a standard deviation of 1.84E+08. The lowest value of Asset-backed securities was 0.0000 and the highest value was 9.35E+08.

The Assets-backed securities variable (ABS) is the process of obtaining a number of cash funds generated from housing loans (mortgages), the credit provided which is stored in a basket (pool) into tradable securities.

TABLE 2: DESCRIPTIVE STATISTICS

	ROA?	ABS?	LLP?	SIZE?	ABS_SIZE?	LLP_SIZE?
Mean	0,02849	1,13E+08	0,034588	8,03E+08	2,05E+17	28187187
Median	0,01245	18220500	0,0305	2,87E+08	4,50E+15	8615923
Maximum	0,205	9,35E+08	0,2	2,95E+09	2,31E+18	2,50E+08
Minimum	-0,01	0	0,0007	26743114	0	72316
Std. Dev.	0,046706	1,84E+08	0,033825	8,37E+08	4,03E+17	45123532

The Loan Loss Provisions (LLP) variable has an average of 0.034588 and a standard deviation of 0.033825. The lowest value of LLP was 0.07% and the highest value of LLP was 6.4%. Loan Loss Provisions (LLP) is a health bank indicator, the higher the non-performing credit of a bank, the more it has an impact on the reduced capital of a bank.

The Size variable has an average of 8.03E + 08 and a standard deviation of 8.37E+08. The lowest value of Size was 26743114 and the highest value of Size was 2.95E+09.

Size is a bank that can take advantage of costs associated with economies of scale (size) and a large capacity to diversity products and services.

Based on Table 3, it is obtained a coefficient of 6.88E-11 and a probability ABS value of 0.0145 < 0.05 ho is rejected, meaning that there is a positive effect of Asset-backed securities (ABS) on Return on Assets (ROA) of asset securitization on the financial performance of banks in Southeast Asian during the period 1998-2018.

The bank's performance with the lowest ABS was XYZ Bank of 142.291 (million) (Malaysia) in 2010, while the highest was XYZ Bank of 783,128,000 (million) (Singapore) in 2015. The lowest ROA was XYZ Bank 0.11% (Malaysia) in 2015, while the highest ROA was XYZ Bank at 5.4% (Philippines) in 2005.

Asset securitization provides banks with additional sources of loan financing and liquidity, and to protect banks' willingness to supply credit from scarcity external markets. Banks can liquidate loans to finance their liquidity they need, they can also undertake to finance new loans, thus making banks less dependent on traditional sources of funds (deposits, savings, and current accounts).

Based on Table 3 above, the coefficient of 0.072341 and the Loan Loss Provisions (LLP) probability value of 0.4503 > 0.05, Ho is accepted, meaning that there is no effect of Loan Loss Provisions (LLP) on Return on Assets (ROA) of the bank financial performance in Southeast Asian during the period 1998-2018 [8].

The bank with the lowest LLP was 0.07% (Singapore) in 2014, while the bank with the highest LLP was 6.4% (Thailand) in 2010. The level of reduction of Loan Loss Provisions (LLP) or credit reserves that will reflect on the quality of the bank assets, the higher the LLP, the lower the credit quality of the bank will result in a lower-profit level. Changes in credit risk will affect the soundness of the loan portfolio. Therefore, banks determine the bad loans of LLP have an effect on credit policies that will affect bank profits [9]. Based on Table 3, it is obtained a coefficient of -1.60E-11 and a probability Size value of 0.6106 > 0.05 Ho is accepted meaning that there is no effect of Size on return on Assets (ROA) of the financial performance in Southeast Asian during the period 1998-2018. The bank with the lowest Size was XYZ Bank of 26,743,114 (million) (Indonesia) 2004, while the highest Size was XYZ Bank of 2,952,903,000 (million) (Singapore) 2015.

According to an empirical study of banks in the United States, it shows a decline of economies of scale, and this is due to the larger the bank, the lower the profitability. Further, the profitability is intended to improve the banking industry, for example, by increasing IT programs with high technology, so that the size will increase. The results of this study concluded that the size was negative for profitability [7].

Based on Table 3, the coefficient of  $-4.85E-20$  and the probability value of the ABS after being given the moderating variable Size is  $0.0252 < 0.05$ ,  $H_0$  is rejected, meaning that there was a negative influence between ABS after being given the moderating variable Size on Return on Assets (ROA) of the financial performance in Southeast Asian during the period 1998-2018. The bank XYZ that had the lowest ABS after being given the moderating variable Size was  $4,1706E+16$  (Malaysia) 2015, while the highest XYZ Bank was  $9,37488E+16$  (Thailand) 2011.

They argued that the moderating effect on Size had an integrated relationship and effect on company performance, based on the results of this study that the value of Size can be predicted in the model, but the results were not significant on moderating between the integration function and firm performance. However, the results of the study produced a significant negative effect on firm Size, which did not support a moderating relationship to company performance [1]. Further, the results of the study, found that the moderating relationship between size and profit was not significant [1].

Based on Table 3, the coefficient of  $-1.20E-10$  is obtained and the LLP probability value after being given a moderating variable Size of  $0.2182 > 0.05$ ,  $H_0$  is accepted, meaning that there is no effect between the LLP after being given the moderating variable Size on Return on Assets (ROA) of the financial performance in Southeast Asian during the period 1998-2018. The banks had the lowest LLP after being given the moderating variable Size was 72.316 (Malaysia) 2005, while the highest was 250,191,000 (Thailand) 2005. The Loan Loss Provisions (LLP) of total loans to measure credit quality. The higher the LLP, the lower the Profitability, so that it will have a negative effect on profitability [3].

## V. CONCLUSION AND POLICY IMPLICATIONS

This study investigates the impact of banking securitization on Asset-backed securities of the bank's financial performance. We examined securitization on Asset-backed securities (ABS) and Loan Loss Provisions (LLP), and Size has a moderating variable effect on Return on Assets (ROA). The banks improved profitability by selling their loans receivable portfolio to the capital market to get liquidity. Furthermore, the bank has significantly changed the role of acting as intermediaries between borrowers and depositors for the last decade.

The results show that Asset-backed securities have found a significant positive Return on Assets. In addition, ABS improved the bank financial performance ratios such as profitability ratios (ROA), Loan Loss Provisions (LLP), and Size. However, some empirical evidence found that asset securitization increases profitability decreases Loan Loss

Provisions (LLP), and reduces bank securitization's default risk. Asset securitization is an alternative way to get a cheaper and lower risk of funding solutions, it reduces the burden of financing for banks and financial institutions to support housing loans financing and infrastructure financing.

Furthermore, asset securitization in Southeast Asian countries (Indonesia, Singapore, Thailand, Malaysia, and the Philippines) cannot be separated from the business and economic center of Singapore. Asset Securitization has been developed since the late 1990s. Further, Singapore is the center of business and the economy in the Asia Pacific. However, the economic growth creates a high housing demand as a result of a housing deficit. Therefore, stakeholders and regulators should provide a cheaper and affordable asset securitization of housing loan financing and infrastructure financing to solve the housing deficit problem.

Finally, for future research, it is recommended to explore several variables to get a better result bank's financial performance to obtain a Return on Equity, Debt to Equity Ratio, and Net Interest Margin.

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