Forced Bank Mergers and SME Financing

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Abstract: Access to finance is one of the most significant challenges for the creation, survival and growth of small and medium enterprises (SMEs), especially, innovative ones. However, forced bank mergers by Central bank of Indonesia may hurdle SME financing and growth. Using the financial data of seven Indonesian bank mergers within 2004-2009, periods three years before and after the merger, this study examines whether bank mergers may hurdle SME financing and growth. The study concludes that bank mergers in Indonesia decreased SME crediting but increased bank performance and SME crediting no longer influenced bank performance either. Bank mergers hurdle SME financing and growth.

Keywords: Credits for SME financing, bank mergers, bank performance

1. Introduction

Since small and medium enterprises (SMEs) and entrepreneurs are widely recognized to be important engines of growth, job creation and social cohesion in countries around the world, access to finance is one of the most significant challenges for the creation, survival and growth of these firms, especially, innovative ones. G20, G8, Leaders (at the Pittsburgh Summit (2009) and at the Deauville Summit (2011)) confirm that access to finance is a need to break the financing hurdles to SME growth. They believe that access to finance provides stability and progress to families and businesses and the economy as a whole. The financial inclusion is a pillar of the G20 Multi-Year Action Plan on Development. Moreover, the G20 Global Platform for Financial Inclusion (GPFI) was launched in Korea in December 2010, establishing financial inclusion as a permanent priority within the G20. They recognized the importance of the access to finance to SME growth, including the issue of private funding. Governments, particularly, Indonesian government continue to face major and longstanding obstacle to design effective policies for SME financing. The global crisis has exacerbated the financing constraints on SMEs. In 2008-2009, SMEs suffered a double shock: a drastic drop in the demand for the goods and services they provide and a credit crunch. These events have had a severe effect on SMEs' cash flows and liquidity, forcing many to declare bankruptcy and contributing to record levels of unemployment in many OECD countries. The crisis continues in many parts of the world. In order for SMEs and entrepreneurs to fulfill their potential to contribute to an inclusive and sustainable recovery, governments and private actors need to ensure access to finance for businesses (OECD /G20 GPFI Special Event on SME Finance, 2012).

The demand for external finance in the UK changed as the economy entered recession. As recession progressed, access to external financing became more difficult for entrepreneurs. As larger firms increase their demand for external financing, it has become difficult for smaller firms to get credits (Crowling et.al, .2012). SME crediting in Indonesia banks is increasing; 11.55% per annum for the year 2008-2010 and 2.30% per month in 2011; from 633,945 billion rupiah in 2008 to 1, 131,467 billion rupiah in September 2011. Fifty eight percent of the banks in Indonesia are regional development and commercial banks, 6% is joint and foreign owned banks and 36% is state owned banks (Monthly Indonesian Banking Statistics, November 2011). However, after the release of regulation by the Bank of Indonesia (BI or Central Bank of Indonesia) on single ownership, the joint ventures and foreign owned banks merge with commercial banks. This might influence SMEs growth through better financing, because concerning credit policy

on SME financing, joint and foreign owned banks run different policy from that of the domestic commercial banks. In order to make the Indonesian banking structure stronger and healthier in the global market, the governor of Indonesian Central Bank decided to issue the banking regulation concerning single ownership from the year 2006 with degree No 8/16/PBI/2006 of the Bank of Indonesia. There is a hope that this change might support the effectiveness of banking supervision in Indonesia. The regulation forces the institutions and individuals that own and control more than one bank should to sell shares to other people, to merge, to consolidate or to unify into a holding company. In fact, mergers and acquisitions can improve bank performance (Altunbas and Ibanez, 2004) in a long run. This also means better profitability, productivity, and efficiency (Egger and Hahn, 2006). Mergers are frequently justified in terms of value creation or efficiency improvements; yet, the evidence is not consistent in terms of the costs, productivity, profitability or market value (Bernard et.al. 2010). For example, Bank of Century that is a merger of three banks, the CIC Bank, Pikko Bank and Danpac Bank, in 2002, declared by Bank of Indonesia (BI) bankrupt and had potentially contagion effect on other financial sectors. LPS (Deposit Insurance Agency) bailed out Bank of Century through a rescue mechanism. In order to meet the minimum capital adequacy ratio (CAR) of 8%, BI had injected capital to the Bank of Century several times, yet, Bank of Century failed to maintain the minimum CAR and continued to decline until it eventually resulted CAR of -2.5%. The bank has failed to pay debt of 127 million USD and specified as bankrupt. This reflects the poor bank performance after the merger.

Literature states bank performance to be influenced by several external and internal factors; macro-economic situation, practice of good corporate governance, type of bank ownership, small and medium enterprise financing, intellectual capital, market structure, tier-1 capital, number of assets, geographic de-regulation, capital adequacy ratio, bank size, outside director, equity, efficiency ratio, credit ratios, number of assets, return on assets (ROA), net interest margin (NIM), board structure (size and composition), spending on advertising and promotion (Scholtens, 2000; Zou, Miller and Malamud, 2008; Lin and Zhang, 2009; Baidan Nam 2009; Anwar, 2010; Mullineaux and Pyles, 2010; Lupu and Nichitean, 2011; Peitsch and Iryna, 2011; Yildis, 2011; Hamada and Konishi, 2010; Adams and Mehran, 2008). Consolidation affects bank performance through risk-adjusted return and bank insolvency risk (Basu et al., 2004). Bank performance is affected by the bank capitalization, capital levels, bank governance, bank to population ratios, operating costs, asset quality and religious belief (Mbizi, 2012). Beltratti and Stulz (2009) found that bank performance is affected by bank-level governance, country-level governance, country-level regulation and bank balance sheet and profitability characteristics before the crisis. Meanwhile, Arif and Anees (2012) found that liquidity also affect bank performance. Globalization and liberalization of the world-economy affected emerging economies including Indonesia. A number of sectors are being developed and restructured via mergers and acquisitions (M&A), particularly, in the banking sector. There was a quest for broader functional competency and improved competitive position by integrating smaller, more successful banks into a bigger bank. Predicted effects of such mergers are improvements in the profitability and market position. In fact, there is also a neutral effect of mergers on profitability and cost efficiency, some bank mergers were successful regarding cost efficiency but some were not. It is not possible to isolate specific factor that most likely yield efficiency gains, but the most frequent and serious problem is unexpected difficulty in integrating data processing systems and operations. In terms of the target earnings, in all cases, shareholders have gained positive abnormal returns (Rhoades, 1998; Behr and Held, 2011; Asimakopoulos, Ioannis, and Athanasoglou Panayiotis P., 2012). Forced bank mergers, which are the result of direct government intervention in the consolidation of the banking industry, are generally rare. Central objective of this research is to examine the extent of the effect of mergers and acquisitions on bank performance, profitability (Net interest margin (NIM) and operational expense to operational income (BOPO)), asset quality (Non-performing loan (NPL)), capital (Capital adequacy ratio (CAR)), liquidity (Loan to deposit ratio (LDR)) and Small-scale loan (Kredit Usaha Kecil (KUK)). In order to assess the effects of mergers, level of performance before and after merger needs to be examined.

2. Methodology

2.1. Hypothesis building

Mergers, acquisitions, and bank performance

Profitability, as bank performance, is a reflection of how the bank is run. Considering the environment in which the bank is run, profitability reflects the quality of bank management and shareholders' behavior, bank's competitive strategy, efficiency, capacity of risk management, and company's ability to become more or less efficient and profitable

(Garcia-Herrero, Gavila, and Santabarbara, 2007; Caruntu, 2008). Greater relatedness, larger firm size (the effectiveness of the integration process) should result in higher performance in M&A (Palich, Cardinal, and Miller, 2000; King, Slotegraaf, & Kesner, 2008). Acquisitions increase the size of a firm and the relatedness can create synergy. Synergy is created largely by complementary capabilities, which are different abilities that fit or work well together (Hitt et al. 2009). The more capabilities are absorbed by the acquiring firm, the bigger synergy and the higher the performance will be achieved in M&A.

H₁: Mergers and acquisitions increase bank performance

Profitability and bank performance in mergers and acquisitions

ROA and ROE measures bank performance. Performance gets lower due to lower level of net profit margin and due to the lower level of net interest margin (profitability) generated by banks. The higher the net interest margin (NIM) is, the higher the performance of banks will be. Another dimension of profitability factor is operational expense to operational income (BOPO). BOPO negatively affects bank performance (Hamada and Konishi, 2010; Li, et al., 2001).

H₂: Profitability (NIM and BOPO) influence bank performance in mergers and acquisitions

Bank Asset Quality and bank performance in mergers and acquisitions

Bank asset quality refer to the unique factor that can affect all aspects of performance. Substantial reduction of bank asset quality will not erode profitability, yet, eventually, it can lead to bank failures. According to Federal Deposit Insurance Corporation, asset quality is one of the most critical areas in determining bank condition. The primary factor that affect the overall quality of the asset is the quality of the loan portfolio and credit administration program. According to the Federal Reserve, asset quality reflects the quantity of credit risk associated with the loan and investment portfolios owned by the bank. The quality of the bank loans measured by bank's Non-performing loan (NPL) significantly affects bank performance (Marius Vasile and Maria, 2011; Mirza and Alexandre, 2011). Non-performing loans lower the asset quality of a bank and produce higher premium. The more premium is paid for the NPL or the non-quality assets, the higher the explanatory power gets in return due to the CAPM method.

H₃: Asset quality (NPL) and bank performance in mergers and acquisitions

Capital and bank performance in mergers and acquisitions

Capital of a bank, according to the Basel III, consists of two kinds known as Tier-1 capital and Tier-2 capital. Tier-1 capital consists of two kinds of capital, namely the Common Equity Tier-1 Capital and Additional Tier-1. The structure of Common Equity Tier-1 should be minimum 4% of total risk-weighted assets and the structure of Tier-1 capital minimum should be 6.5% of risk-weighted assets. The amount of total capital (tier-1 plus tier-2) shall not be less than 8% compared to the risk-weighted assets. The capital of a bank is useful since it buffers unexpected losses and it serves as the funding for bank activities (Association for Financial Markets in Europe). According to Bank of Indonesia (BI), capital (equity) is the amount of money invested in a company that brought by the owner or owners; funds possessed not only by initial funding, but also by the retained profits and reserves (proprietary's stake). In their research in Nigeria, Onaolapo and Olufemi (2012) found through granger causality test that there was no significant effect of CAR on bank performance. Based on the results, it can be concluded that CAR has less impact on bank performance, yet, it is important in maintaining stability. The bigger is CAR, the more stable and secure the bank performance will be.

H₃: Capital of a bank (CAR) influence bank performance in mergers and acquisitions

Liquidity and bank performance in mergers and acquisitions

Liquidity refer to the ability to convert an asset into a means of payment easily and within as least time as possible. Assets can be converted into money through sale. The bank is generally declared illiquid if it cannot pay all of the overdue debts on time. The bank that fails to pay the overdue debts is likely to experience losses (Drehmann and Nikolaou, 2009:5; Domanski, Fender and McGuire, 2011:58; Geanakoplos, 2002:34). The effect of liquidity on bank performance measured by ROA and ROE is well noticable. Banks with higher liquidity risk will have lower performance. In the condition of higher liquidity risk, bank must obtain sources of liquid funds with higher cost. Bank mergers and acquisitions lower liquidity risk and borrowing rate, thus, increase its performance (Lewellen, 1971; Shen

et al. 2009). In such cases, creditors may also be more willing to provide a higher volume of financing to banks (Berger and Humphrey, 1992; Rhoades, 1993; Al-Sharkas, Hassan and Lawrence, 2008). Mergers and acquisitions diversify the effect of systematic risk and reduce the influence of the transition on the business environment eventually cause to increase performance.

H₄: Liquidity (LDR) influence bank performance in mergers and acquisitions

Small-scale loan (KUK) and Banks performance in mergers and acquisitions

KUK refer to loans given to small medium enterprises for various purposes. This type of loan may have softer requirements and allow SMEs to secure their funds. According to The Bank of Indonesia, micro, small, and medium financing is funds or bills or equivalent provided in rupiah and/or foreign currency based on agreements between the lending bank and third party (bank or non-bank) businesses that meet the appropriate legislation criteria on SMEs. According to the U.S Small Business Administration, small business is a business that is not dominant in its field and is qualified in accordance with applicable government regulations. According to the Small Business Loans Act of Canada, small business is the work done in Canada to generate profits with less than 5 million dollars. Small-scale loan affect bank performance. Small-scale loan has a negative effect on CAR, but has a positive effect on NPL and ROA (Anwar, 2010). According Ergungor (2002), the proportion of loans given to the small business result in decrease in performance. Small business lending has greater risk without providing higher returns.

H₅: Small-scale loan (KUK) influence bank performance in mergers and acquisitions

2.1.Data collection and analysis tools

Using report on the bank mergers occurred within the years 2004- 2009 from Indonesian banks, the data from periods three years before and after bank mergers were collected and analyzed using three multiple regression models.

$$\text{RORWA} = \alpha + \beta_1 \text{NIM} + \beta_2 \text{BOPO} + \beta_3 \text{NPL} + \beta_4 \text{CAR} + \beta_5 \text{LDR} + \beta_6 \text{KUK} + e$$

RORWA= Return on risk-weighted asset (performance of banks)

NIM = Net Interest Margin (profitability)

BOPO = Operational expenses to Operational Income (profitability)

NPL = Non-Performing Loan (assets quality)

CAR = Capital Adequacy Ratio (capital)

LDR = Loan to Deposit Ratio (liquidity)

KUK = Small-scale loan (Kredit Usaha Kecil (KUK)).

3. Results and discussion

Results show that the bank performance (RORWA) got better after the bank merger. In fact, RORWA increased after the merger. Increase can be observed with BOPO, NPL and LDR coefficients. The profitability, assets quality, and liquidity coefficients also got improved after the merger. However, merger increased banks' NIM; or they have received more interest margin than they did before. This implies that after the merger banks prefer interest-based income than fee-based income. After the merger, KUK (SMEs credit) decreased meaning that banks prefer lending among banks than giving small-scale loan to small businesses. After merger the banks' CAR (capital) decreased, but they were more uniformly among the banks (merger) (Table 1). Hamada and Konishi (2010) also found that in Indonesia the bank's efficiency, and bank performances merged were increased, either in the second study period (1997-2000), third (2001-2003), or the fourth period (2004-2007).

Table 1. RORWA, NIM, BOPO, NPL, CAR, LDR, and KUK (Before, after merger and complete period)

Variable	Complete period		Before Merger		After Merger	
	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev
RORWA	0.002519	0.037838	-0.00042	0.05304	0.005455	0.008214
NIM	0.044404	0.01708	0.042398	0.018342	0.04641	0.015681
BOPO	0.934407	0.215446	0.952023	0.290562	0.91679	0.094363
NPL	0.028444	0.03959	0.033762	0.053016	0.023126	0.017445
CAR	0.154933	0.049353	0.166448	0.05895	0.143417	0.034409
LDR	0.774541	0.428338	0.803425	0.542521	0.745654	0.274563
KUK	0.043539	0.037423	0.044107	0.04152	0.042971	0.033324

Source: E-views 6 data processing.

Table 2. RORWA Regression Analysis (complete period)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.151003	0.016255	9.289654	0.0000
NIM	-0.007644	0.12618	-0.06058	0.9519
BOPO	-0.153019	0.012022	-12.7282	0.0000
NPL	-0.13485	0.064939	-2.07657	0.0412
CAR	-0.014616	0.039361	-0.37133	0.7114
LDR	-0.005242	0.005084	-1.0311	0.3057
KUK	0.114797	0.049075	2.339203	0.0219

Source: E-views 6 data processing.

Table 3. RORWA Regression Analysis (Before Merger)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.14703	0.021411	6.86696	0.0000
NIM	0.289646	0.177524	1.631591	0.1117
BOPO	-0.171245	0.014683	-11.66303	0.0000
NPL	-0.033254	0.078928	-0.421322	0.6761
CAR	0.008575	0.052271	0.164042	0.8706
LDR	-0.008045	0.006029	-1.334516	0.1907
KUK	0.214485	0.069086	3.10461	0.0038

Source: E-views 6 data processing.

Research Model :

Before Merger: $RORWA = 0.14703 + 0.289646 \text{ NIM} - 0.171245 \text{ BOPO} - 0.033254 \text{ NPL} + 0.008575 \text{ CAR} - 0.008045 \text{ LDR} + 0.214485 \text{ KUK} + 0.021411 \dots \dots \dots \text{(Table 2)}$

After Merger : $RORWA = 0.053627 - 0.023515 \text{ NIM} - 0.029696 \text{ BOPO} + 0.160686 \text{ NPL} - 0.056622 \text{ CAR} - 0.020808 \text{ LDR} + 0.001523 \text{ KUK} + 0.019203 \dots \dots \dots \text{(Table 3)}$

SME crediting and BOPO have big influence on bank performance before the banks had been merged. The credit provided to SMEs resulted in positive impact on bank performance, yet, BOPO had negative impact. Bank mergers changed bank policy. After mergers, banks became more performance oriented. They do not bring about the government mission in stabilizing and progressing families and the small medium businesses, and the economy as a whole. After the merger, banks use variables other than SMEs credit that might increase their performance faster (adjusted R-Square = 0.461919; decreased from 0.888733; Table 4). They use their networking, business relation, bigger size and etc.

Table 4. Adjusted R-square

Model	Adjusted R-square
Before Merger	0.888733
After Merger	0.461919
Total year	0.828363

Source: E-views 6 data processing.

In addition, it was found that NIMs, NPLs, CARs, LDRs of the banks do not affect the bank's overall performance before and after the bank mergers (Table 2 and Table 3). Fact is that in China case bank performance found to be low due to low levels of net interest margin (Li et al., 2001). After the merger, banks no longer just rely on the interest income as their sources of income, but try to generate fee-based income. The banks not only rely on the ability to generate profits but also consider the risk taken in order to generate profits. Marius Vasile and Maria (2011) found that asset quality has a significant effect on the performance; asset quality have long-term impact on bank performance. The decrease in asset quality will lead the bank to loose reputation and confidence which eventually lead to possibility of a bank failure. Conversely, an increase in the quality of assets will enhance the reputation and trust in the bank. Through enhanced reputation and trust, bank can increase its long-term performance. Onaolapo and Olufemi (2012) in Nigeria case also found no influence of CAR on bank performance. The capital is not directly related to bank performance. Capital is a resilience of the banking crisis. It has no direct effect on the performance but it has something to do with the government's purpose in order to strengthen the structure of the economy, global financial situation, public trust, and competition with other banks. Shen et al., (2009) found that liquidity significantly influences on bank performance. They found that the lack of liquidity leads to decrease in the earnings of the banks and thus, bank performance declines. Anwar (2010) stated that there is a significant relationship between small business financing and bank performance. Ergungor (2002) found that small businesses financing doesn't influence bank performances.

Implications and limitations of the research

Although bank performance in Indonesia is significantly positively influenced by SME crediting and negatively by operational expenses, forced mergers create financing hurdles to SME growth. Bank mergers lead the banks to be performance oriented; they do not bring about government mission in stabilizing and progressing families, businesses, and the economy as a whole. Only seven banks were studied as the research subjects merged between years of 2004-2009 because there were only seven bank mergers during this time. Hamada and Konishi (2010) analyzed nine years data after merger. Bigger samples and broader time horizon of bank mergers may have been better analysis.

References

- Al-Sharkas Adel A., Hassan M. Kabir and Lawrence Shari (2008). "The Impact of Mergers and Acquisitions on the Efficiency of the US Banking Industry: Further Evidence", *Journal of Business Finance & Accounting*, 35 (1) and 35 (2), January/March, pp. 50-70.
- Asimakopoulous Ioannis, and Panayiotis P. Athanasoglou (2012), [http://mpira.ub.uni-muenchen.de/31994/MPRA Paper No. 31994](http://mpira.ub.uni-muenchen.de/31994/MPRA_Paper_No._31994), July 2011 11:11 UTC
- Behr Andreas and Frank Heid (2011), "The Success of Bank mergers revisited. An Assessment Based On A Matching Strategy", *Journal of Empirical Finance*, Vol 18, Issue 1, January 2011, Pages 117–135
- Berger, A.N. and D.B. Humphrey (1992). "Megamergers in Banking and the Use of Cost Efficiency as Antitrust Defense", *The Antitrust Bulletin*, Vol. 37, pp. 541-600.

- Crowling, Marc., Liu Weixi, Andrew Ledger, 2012. Small business financing in the UK before and during the current financial crisis *International Small Business Journal* 0266242611435516, first published on July 24, 2012
- Distinguin Isabelle, Caroline Roulet and Amine Tarazi (2013), “ Bank regulatory capital and liquidity: Evidence from US and European publicly traded banks.” *Journal of Banking & Finance*, Vol 37, Issue 9, September 2013, Pages 3295–3317
- Ergungor, O. Emre. (2002). Community banks as small business lenders: the tough road ahead.
- Galai, D., Masulis, R., 1976. “The option pricing model and the risk factor of stock”. *Journal of Financial Economics* 3, pages 53–81.
- Hagendorff Jens, Ignacio Hernando, Maria J. Nieto Larry D. Wall (2012),” What do premiums paid for bank M&A reflect? The case of the European Union” *Journal of Banking & Finance*, Vol. 36, Issue 3, March 2012, Pages 749–759
- Hamada, Miki dan Konishi, Masaru. (2008). Related lending and bank performance: evidence from Indonesia. No. 229.
- Higgins, R.C., Schall, L.D., 1975. “Corporate bankruptcy and conglomerate merger”. *Journal of Finance* 30, pages 93–113.
- Hitt, M. A., Harrison, J. S., & Ireland, R. (2001). *Mergers and acquisitions: A guide to creating value for stakeholders*. Oxford, UK: Oxford University Press.
- Hitt, Michael A., David King, Hema Krishnan, Marianna Makri, Mario Schijven, Katsuhiko Shimizu, Hong Zhu, (2009).” *Mergers and acquisitions: Overcoming pitfalls, building synergy, and creating value*”. *Business Horizons* (2009) 52, pages 523—529
- Jensen, M., Ruback, R., 1983.” The market for corporate control: the scientific evidence”. *Journal of Financial Economics* 11, pages 5–50.
- Kaplan, Steven N. (2006), “Mergers and Acquisitions: A Financial Economics Perspective”. Prepared for the Antitrust Modernization Commission Economist’s Roundtable on Merger Enforcement on January 19, 2006.
- King, D. R., Dalton, D. R., Daily, C. M., & Covin, J. G. (2004).” Meta analyses of post-acquisition performance: Indications of unidentified moderators”. *Strategic Management Journal*, 25(2), pages 187—200.
- King, D. R., Slotegraaf, R., & Kesner, I. (2008). “Performance implications of firm resource interactions in the acquisition of R&D-intensive firms”. *Organization Science*, 19(2), 327—340.
- Lewellen, W.G, 1971. “A pure financial rationale for the conglomerate merger”. *Journal of Finance* 27, pages 521–537.
- Mirza, Nawazish dan Alexandre, Herve. (2011). Size value and asset quality premium in European banking stocks.
- Palich, L. E., Cardinal, L. B., & Miller, C. C. (2000).” Curvilinearity in the diversification-performance linkage: An examination of over three decades of research”. *Strategic Management Journal*, 21(2), 155—174.
- Penas, Maria Fabiana and Haluk Unal (2004). “Gains in bank mergers: Evidence from the bond markets”. *Journal of Financial Economics* 74 (2004) pages 149–179
- Rhoades, S.A. (1993). “The Efficiency Effects of Horizontal Bank mergers”, *Journal of Banking and Finance*, Vol. 17, pp. 411-422.
- Rhoades, Stephen A (1998), “The efficiency effects of bank mergers: An overview of case studies of nine mergers”, *Journal of Banking & Finance*, Vol 22, Issue 3, March 1998, Pages 273–291
- Shen, Chung-Hua et.al. (2009). Bank liquidity risk and performance.