

Factors influencing Net Margin of Sharia Commercial Banks and Sharia Business Units in Indonesia

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ABSTRACT: *The development of sharia banking in Indonesia has been increasing rapidly since the early of 2000s, after the economic crisis in 1998-1999. Since the beginning, the sharia banking in Indonesia has been developed into two forms of business model, namely sharia commercial bank and sharia business unit opened by the conventional bank. Several issues regarding the sharia bank operation are questioned along the growth of this industry, includes their intermediary function specifically on the bank Net Margin. This study will compare the net margin between sharia commercial bank and sharia business unit, and factors influencing the net margin represented by financial variables such as financing to deposit ratio (FDR), non-performing financing ratio (NPF), cost efficiency ratio (BOPO), capital adequacy ratio (CAR), cost of funds (COF), margin of financing (MOF). Based on the availability data of Indonesia's Financial Service Authority (OJK), the study is using monthly financial data from all sharia banks in Indonesia from June 2014 to May 2017. The study results that in sharia commercial bank model, the net margin is influenced significantly by financing to deposit ratio, capital adequacy ratio, operating cost to operating income, financing margin and cost of fund but the non-performing financing ratio does not significantly influence the net margin. On the sharia business unit, the non-performing financing, operating cost to operating income, financing margin and cost of fund significantly influenced the net margin while the financing to deposit ratio and capital adequacy ratio are not significantly affecting the net margin. Another interesting result shows that almost all variables have the same sign of influence, but specifically on the variable of cost of fund, the effect on the net margin is opposite between the two sharia banking model. Also the estimation result of non-performing financing variable shows an opposite sign than expected for both groups.*

Key words: *Sharia Commercial Bank, Sharia Business Unit, net margin, financing to deposit ratio, capital adequacy ratio, non performing financing, operating cost, cost of fund, financing margin.*

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I. INTRODUCTION

The monetary crisis that occurred in 1998-1999 has caused the banking industry in Indonesia falling into a very critical condition. Most of the conventional banks suffered losses exceeded the equity due to a very large negative spread (interest margin) where the cost of funds of the liabilities of banks is greater than the interest income from bank assets. The only Islamic bank that had already operated, Bank Muamalat Indonesia, remained able to survive in that period of high deposit interest rates that caused the negative spread and it was not being bailed out by the government. This fact is interesting to explore regarding the differences between sharia banks and conventional banks in their asset liability management systems.

The net margin ratio is measured as a spread between income from asset distribution and the costs of third party funds divided by total earning assets. In the context of asset and liability management, the relationship between financing and funding in sharia banks is more complex given that sharia banks use revenue sharing instruments on the funding side, where returns derived from financing (and associated risks) will be shared with sharia bank depositors (Tarsidin and Warjiyo, 2006). This can result in a sustainable positive spread between the return of assets and liability. But if the positive spread is not large enough to cover the overhead cost, the sharia bank also can suffer losses at the bottom line.

Net margin is also one factor that can measure the efficiency level of a bank in carrying out its operations. In theory, the bank net margin is expected to be as low as possible because the lower net margin will support a better intermediation function of the banking system in a country. In addition, a stable net margin is also the goal of asset and liabilities management of banking industry (Arifin, 2006) including sharia banks because beside pursuing the targeted profit in the annual budget, also to achieve bank soundness rating on the Earning aspect which is part of the CAMEL (Capital, Asset, Management, Earning, Liquidity) assesment based on the regulation of rating system of commercial bank soundness (Bank Indonesia, 2014).

The development of sharia banking industry in Indonesia exists into two forms of business model, namely sharia commercial bank and sharia business unit opened by the conventional bank. Each bank has its own consideration why the sharia bank is still operated in the form of a sharia business unit and not in the form

of a separate business entity from the conventional parent bank. One of the main reason is in the terms of profit achievement. Also, the total asset of sharia banking industry in Indonesia as Dec 2016 has reach Rp. 356,50 trillion (OJK, 2017) where the commercial sharia banks has the portion of 71,30% and rest is of sharia business unit. Therefore, this study will be conducted to examine the net margin behaviour between full-fledged sharia commercial bank and the sharia business unit and what are the factors that need to be considered in both forms of the sharia banking. In this study, we will use some financial variables representing the CAMEL assesment to examine their effect on the net margin. Those variables are capital adequacy ratio (CAR) as the proxy of Capital; non performing financing ratio (NPF) as the proxy of Asset quality; cost efficiency ratio (BOPO) as the proxy of Earnings, besides net margin; and financing to deposit ratio (FDR) as the proxy of Liquidity. We also put some additional variables in our estimation, those are margin of financing (MOF) and cost of fund (COF) to present asset and liability management particularly in treasury activity.

The structure of this paper will be as follows: Section 1 as Introduction, Section 2 provides a review of the literatures related to bank net margin and some basic characteristic of sharia bank that might impact the level of bank net margin. Section 3 will present the estimation methods and variable descriptions used in this paper. Section 4 shows the descriptive statistic and explains the findings resulted from the estimation, and section 5 contains the conclusions, as well as some policy suggestions.

II. LITERATURE REVIEW

The bank net margin can be used to measure bank performance as an intermediary institution that encourages economic growth. As an intermediary institution, the banking sector plays a dominant role in the economic development of a country. Higher bank net margins typically indicate the low efficiency of the banking sector, characterized by high costs due to inefficiencies of operating costs, and have a negative effect on the development of banking industry led to low investment and low economic activity. The high bank net margin may also indicate high risk due to inappropriate policy from the banking sector or due to significant information asymmetry. On the other hand, the low bank net margin usually indicates the growing banking market, encouraging investment activity and supporting economic growth. However, the advantages of low intermediation costs will be effective if banks assess risk in a cautious manner (Diminic M, Ridzak, 2013). According to Hutapea and Kasri (2010), the literature on the bank net margins can be classified into two approaches:

a. Dynamic intermediary or dealership approach

Dealership approach was pioneered by Ho and Saunders (1981) (in Maudos and Fernández de Guevara, 2004) to study the factors affecting NIM (Net Interest Margin) or bank margin. According to their study, in its role as a dealer and setting up loan and deposit proceeds, the bank faces uncertainty and costs due to loan demand and the provision of deposits is stochastic in the sense that they arrive at different times. Thus, the bank must hold long or short positions on the interbank money market to balance the uncertainty that puts it at risk of profit sharing and inevitably affects the margin of the bank. This suggests that greater risk aversion, larger bank transaction size and greater variation of profit sharing rate are associated with larger bank spreads. This implies that although the banking market is highly competitive, as long as bank management is willing to assume risk and face transaction uncertainty, positive bank margins will persist as banks provide and develop connection between savings and loans (Hutapea and Kasri, 2010).

According to Saunders and Schumacher (2000), because of the reluctance to face risks on arrival asymmetric loan demand and savings needs, banks should set appropriate interest rates or profit sharing for loans and savings to minimize risks from insufficient savings.

To prove their theoretical model, Ho and Saunders (1981) also tested the validity of the model on 53 US bank samples using quarterly data from 1976-1979. The result of the main factors that affect the NIM or bank margin is the transaction uncertainty (pure spread) and implicit interest rate. The effect of pure spread is smaller in the case of large banks, due to differences in the structure of the banking market in the United States rather than risk aversion and the size of bank transactions (Hutapea and Kasri, 2010).

The seminal model by Ho and Saunders (1981) has been enriched by many subsequent authors both theoretical extension and empirical estimation, also incorporating some advance bank specific and macroeconomic variables into the model (Maudos and Solís, 2009). Many studies on this topic provide strong evidence that one of the major factors influencing intermediation margin is the degree of competition. This factor is included as a part of bank pure spread in Ho and Saunders' (1981) model.

b. Microstatic model of banking

In contrast, the second approach is banking analysis in a static state where loan demand and savings are known clearly. The microstatic approach developed from criticism that the dealership approach failed to consider some of the relevant aspects of bank operations, such as administrative costs to maintain loan contracts

or deposits and institutional structures of the banking market (Lerner, 1981). Lerner (1981) pioneered the study and found that risk-averse banks, operating with smaller spreads of risk-neutral banks. This finding was later challenged by Wong (1997) who expanded the research by incorporating loan risk and profit-sharing risk into the model. In contrast to previous findings, Wong suggested a larger bank margin for risk-averse banks compared to banks that took neutral risk which means spread is wider when the risk that the bank avoids increases. Therefore, since this model leads to different results, most empirical studies on bank margins use dealership approach (Hutapea and Kasri, 2010).

Furthermore, in terms of factors that will affect the bank net margin specifically in Indonesia banking industry, there are still some differences of opinion in various findings as seen in the table below:

Table 2.1 Some Empirical Study on Bank Net Margin in Indonesia

Author	Year	Title	Findings
Risya Asya, Putri	2014	The Influence of Interest Rate (BI Rate), Inflation, Non Performing Financing (NPF), and Operating Cost (BOPO) to the Profitability of Sharia Banking, period 2008 – 2012	This study found that NPF does not affect the profitability of sharia banks while BOPO has an effect on sharia banks' profitability
Lia, Yuliani	2014	The Influence of Financing To Deposit Ratio (FDR) and Non Performing Financing (NPF) to The Profitability of Sharia Commercial Bank (Empirical Case Study at Sharia Commercial Bank Registered at Bank Indonesia)	In this study, it is found that the NPF has an effect on the profitability of sharia banks while the FDR has no effect on the profitability of sharia banks.
Rulin, Rulianti	2014	The Influence of Third Party Funds, Non Performing Finance and Profit Sharing on Profitability of Syariah Banking in Indonesia (Case Study on Bank Syariah Mandiri, Bank Muamalat Indonesia and Bank Mega Syariah Indonesia, Period 2008 - 2012)	Third-party funds and tariffs for the profit sharing do not have significant influence on the profitability of sharia banks while the NPF has a significant influence on the profitability of sharia banks
Jilan Kris, Arifah	2016	The Effect of Non-Performing Financing, Third Party Funds, and Financing to Deposit Ratio on Profitability in State-Owned Sharia Banks, period 2010-2014	The result of the study is NPF and third party funds have a significant influence on the profitability of sharia banks while FDR has no significant influence
Sekar Wangi, Tresna Asih	2014	The influence of non-performing financing and the level of capital adequacy on the profitability of sharia banks in Indonesia (empirical study on sharia banks registered at Bank Indonesia during the period 2009-2013)	NPF and level of capital adequacy have significant influence on the profitability of state-owned sharia banks in Indonesia
Farentia, Andini	2015	The influence of the loan to deposit ratio (LDR) on the profitability of banks (research on banking companies listed on the Indonesia stock exchange, 2012-2014)	In this study, it is found that the LDR did not significantly affect the profitability of banks
Nurrina, Rizkiyanti	2012	The influence of capital adequacy ratio, productive assets, and liquidity to the level of profitability in conventional commercial banks, period 2006-2010	Capital adequacy or CAR and LDR did not have a significant influence on profitability while the NPL has significant negative impact on the bank sample
Iqbal Rahman, Hakim	2013	The influence of non-performing financing and capital adequacy ratio on the profitability of Bank Mega Syariah	CAR or capital adequacy and NPF did not significantly affect the profitability of Bank Mega Syariah
Raden Cahya, Rahmadiansyah	2012	The Influence of Non Performing Loans and the Write-Off of Non Performing Loans against Net Profit Margin (a case study on Commercial Banks Listed on Indonesia Stock Exchange)	Problem loans and write-off significantly affect net profit margin.

Another important contribution for the specific case of Indonesian banking industry is the study by Ascarya and Yumanita (2010). They make an attempt to incorporate a sample of Islamic banks into the empirical estimation combined with those of conventional banks. However, the difference between the behavior of intermediation margin of conventional banks and Islamic banks is still not revealed yet.

The major feature in intermediary function of sharia banks which are considered as the most comply with Islamic law and norms is the use of profit-and-loss sharing (PLS) principal based on two basic contracts:

mudarabah (profit-sharing) and musyarakah (joint venture) (Haron, 1995). The practice of PLS principal in its development and due to domestic regulation in each country, has transformed into just the profit-sharing mechanism. While the profit-sharing principal is well developed in liability side, sharia banking in many countries have shown particularly lack of profit sharing principal in the financing activity and develop largely on debt-like financing (murabaha, etc) that are permissible under Islamic law, but undermine the spirit of interest prohibition (Aggarwal and Yousef, 2000; Chong and Liu, 2009). The sharia banks in Indonesia also experience this condition, thus the effect on sharia bank profitability is still not concluded whether it has any different behavior with the conventional banks.

While there are already many studies analyzing the sharia bank net margin and some of the determining factors, this paper will make an attempt to explore the difference on the bank net margin behavior of sharia commercial banks and sharia business units operated by their conventional parent banks. Which one is better in terms of profitability is still be an interesting sector to explore. One important fact that should be taken into account is that the sharia business units still depend on the financial support from their conventional parent banks where the equity measurement includes the operating funds from the parent bank as a component of equity beside earnings (Gamaginta and Rokhim, 2012).

1. Evaluation Methods

In this section, we present the empirical approximation of factors influencing the net margin of sharia banks in Indonesia, both sharia commercial banks (BUS) and sharia business units (UUS). Some financial variables listed in the CAMEL assesment (Bank Indonesia, 2014) will be used to examine their effect on the net margin. Those variables are capital adequacy ratio (CAR) as the proxy of Capital; non performing financing ratio (NPF) as the proxy of Asset quality; cost efficiency ratio (BOPO) as the proxy of Earnings, besides net margin; and financing to deposit ratio (FDR) as the proxy of Liquidity. We also put forward some additional variables to express asset and liability management particularly in treasury activity, those are margin of financing (MOF) and cost of fund (COF).

The net margin (NM) is used as the dependent variable and the rest are the independent variables. Those variables will be estimated in a regression model of the net margin as a function of CAR, NPF, BOPO, FDR, MOF and COF as follows :

$$NM_BUS_t = \alpha + \beta_1 CAR_BUS_t + \beta_2 NPF_BUS_t + \beta_3 BOPO_BUS_t + \beta_4 FDR_BUS_t + \beta_5 MOF_BUS_t + \beta_6 COF_BUS_t + \mu \quad (1)$$

$$NM_UUS_t = \alpha + \beta_1 CAR_UUS_t + \beta_2 NPF_UUS_t + \beta_3 BOPO_UUS_t + \beta_4 FDR_UUS_t + \beta_5 MOF_UUS_t + \beta_6 COF_UUS_t + \mu \quad (2)$$

For $t=1, \dots, T$, where T is the total observed periods.

The variables are proxied empirically as described below :

- Referred to the regulation of rating system of commercial bank soundness (Bank Indonesia, 2014), NM is net margin of sharia banks (BUS or UUS) calculated as the difference between financing (profit sharing and mark up margin) income and profit sharing distributed to deposits, divided by total productive assets.
- Capital Adequacy Ratio (CAR) is measured as total bank capital divided by total risk-weighted asset (Bank Indonesia, 2014). Looking back to the model of Ho and Saunders (1981), CAR can be used to present the level of risk aversion as a proxy of bank pure-spread. In Maudos and Fernández de Guevara (2004), Carbó and Rodríguez (2007), Maudos and Solís (2009), the level of risk aversion is expressed by capitalization ratio proxied by the ratio of total equity to total assets. The effect on bank net margin is expected to be positive, assuming that if the bank becomes more risk averse, it will charge a higher margin to cover the higher cost of equity compared to external financing. For sharia banking industry, most sharia banks are evidenced to have relatively higher capitalization ratio than conventional banks (Turk-Ariss, 2010; Gamaginta and Rokhim, 2012).
- Non-Performing Financing Ratio (NPF) is calculated as the ratio of total non-performing (bad) productive assets to total productive assets (Bank Indonesia, 2014). This variable is presenting the asset quality, specifically the credit risk which is also one of the bank pure-spread determinants in the theoretical model of Ho and Saunders (1981). This variable is expected to have a positive effect on the net margin since the risk of credit default requires the bank to apply a risk premium implicitly in the interest rates charged for the operation (Maudos and Fernández de Guevara, 2004).
- Cost efficiency Ratio (BOPO) is used to capture the quality of management to control operation cost or efficiency, calculated as total operational cost divided by total operational income (Bank Indonesia, 2004). Angbazo (1997) suggested that good quality of management translates into selecting highly profitable assets and low-cost liabilities. An increase in this ratio reflects a decrease in the quality of management to control the operational efficiency. Thus, a negative relationship is expected.
- Financing to Deposit Ratio (FDR) is measured as the total financing distributed to third party exclude credit to bank institution divided by total third party funds, not include the interbank loan. This variable is used to

capture the management activity to manage the liquidity risk faced by sharia banks. Most of the sharia banks so far failed to effectively mobilize financial resources due to lack of secondary markets for trading in sharia financial instruments (Dar and Presley, 2000). The finding by Turk-Ariss (2010) shows that the Islamic banks allocate a larger share of their assets to financing compared to conventional banks. A larger FDR implies a decrease in management quality to handle the liquidity risk so that the potential income generated from assets allocation is lowered since mobilizing source of funds become more difficult. Therefore, the expected effect on the net margin is negative.

- f. Margin of Financing (MOF) is used to capture bank charge to creditors, measured as the total profit-sharing/margin income divided by total financing asset. A larger MOF reflects that the bank will charge additional risk premium as the credit risk increase. The effect on the net margin is then expected to be positive.
- g. Cost of Funds (COF) is the ratio of total profit-sharing distributed to depositors compare to total third party funds. As mentioned above, the relationship between financing and funding in sharia banks is more complex than that of conventional banks. In the theoretical context, in sharia banks there is risk sharing between banks and depositors, where the risks arising from bank financing activities are partially transmitted to its depositors through the use of profit-sharing instruments on its deposits, while on a conventional bank, there is no risk sharing between banks and depositors, considering that banks have to pay the amount of interest that has been determined without having to take into account the return and risk of financing activities (Tarsidin and Warjiyo, 2006). The adoption of the profit-sharing principal on sharia bank deposits indeed is much faster than on asset side, but according to the study of Chong and Liu (2009) and Kaleem and Isa (2003), it is not really interest-free because it follows the movements of conventional deposits return, instead of purely distributing the profit-sharing from the income occurred. In practice, deposits rate is imposed with the market risk which closely pegged to the reference interest rate set out by the central bank. Based on these findings, we expected the relationship sign to be positive since the greater market risk will trigger the banks to require a higher premium at the margin (Maudos and Fernández de Guevara, 2004).

This study will use the group-level financial data on sharia banks in Indonesia, both sharia commercial banks (BUS) and sharia business units (UUS), for the period June 2014– May 2017 from the monthly sharia banking statistic reports available on Financial Service Authority (OJK) official website. The total asset of sharia banking industry in Indonesia as Dec 2016 has reach Rp. 356,50 trillion (OJK, 2017) where the commercial sharia banks have the portion of 71,30% consist of 13 banks and 28,70% portion is of 21 sharia business units.

The observation period begins from mid 2014 because we want to use sharia bank variables from the new format of report consistently, since there was a system transition from Bank Indonesia to OJK as the financial service (include bank) monitoring mandate become the function of OJK. The data of variables used in this paper is provided in Appendix A.

2. Findings

Table 4.1 presents statistics of both dependent and independent variables used in the estimation. In the observation period of June 2014 to May 2017, the average net margin (NM) of the sharia commercial banks is evidenced lower than that of sharia business units, but both groups show a relatively same level of volatility.

Table 4.1 Descriptive Statistics of Dependent and Independent Variables

Bank Group	Stat (in %)	NM	CAR	NPF	BOPO	FDR	MOF	COF
BUS	Mean	0.75	15.30	5.15	95.45	88.68	12.74	5.62
	Max	1.26	17.04	6.17	99.04	95.21	13.38	6.72
	Min	0.17	14.09	4.33	85.80	81.36	11.76	3.86
	Std.Dev.	0.26	0.86	0.42	2.27	3.30	0.48	0.78
UUS	Mean	2.31	36.71	3.32	79.10	106.25	11.85	5.62
	Max	2.85	49.77	3.97	83.41	123.50	13.57	6.84
	Min	1.83	2.77	2.55	72.78	96.60	10.15	4.42
	Std.Dev.	0.26	8.91	0.35	2.61	7.82	1.35	0.74

Source: OJK (2014 - 2017), author's calculation

The capital adequacy ratio (CAR) of the sharia commercial banks is ranged between 14 – 17 %, much lower than that of sharia business units which is reached 36,7% in average. Also CAR of sharia business units is much more volatile than CAR of sharia commercial banks. This finding confirms the study of Gamaginta and Rokhim (2012) which states that the equity measurement of the sharia business units includes the operating

funds from the parent bank as a component of equity beside earnings and operated like working capital which its fluctuation corresponds with the level of return.

The sharia commercial banks show the non-performing financing ratio (NPF) that tends to be higher than sharia business units in terms of mean and volatility, indicating the higher credit risk faced by the sharia commercial banks. While the cost efficiency ratio (BOPO) of the sharia commercial banks is averaged higher than that of the sharia business units, the financing to deposits ratio (FDR) of sharia commercial banks tends to be much lower both in the mean value and volatility. Also the value of sharia business units' FDR exceeds over than 100%. This can be explained since the sharia business units still receiving financial support from their conventional parent banks, so they can have more flexibility in managing liquidity.

The financing margin (MOF) of sharia commercial banks is slightly higher compared to sharia business units. Since a larger MOF implies an increase in credit risk, the finding is understood given that NPF of sharia commercial banks is higher than that of sharia business units. On the cost of funds (COF), both sharia commercial banks and sharia business units tend to have a relatively same mean value and volatility. This finding leads to questions whether the movement of COF in both groups of banks is influenced by the competition among banks or just because following the central bank reference interest rate. But we will not discuss here in this paper and we leave those questions for future study.

The dependent and explanatory variables are estimated using OLS regression. The results are presented below in Table 4.2.

Table 4.2 Estimation Result

Variables	BUS	UUS
CAR	0.111 *	0.001
	0.065	0.002
NPF	-0.023	-0.057 *
	0.107	0.065
BOPO	-0.041 *	-0.095 *
	0.014	0.009
FDR	-0.061 *	-0.001
	0.018	0.005
MOF	0.106 *	0.078 *
	0.100	0.036
COF	0.177 *	-0.139 *
	0.078	0.096
_cons	6.255 *	10.003 *
	2.813	0.708
R2	0.691	0.887
Adj. R2	0.619	0.864

Standard errors in parentheses

*p<0.05

The estimation result indicates that not all variables are statistically significant (at 5% confidence level). CAR and FDR only significant for sharia commercial in affecting the bank net margin. This can be understood since the sharia business units are still receiving the financial support from the parent bank so that they have more flexibility to maintain their capital requirement and also in managing their liquidity.

The credit risk variable, NPF, is only significant for the sharia business units and showing an opposite sign. This can be explained at least in two reason: The first is that in a depressed economy, the risk of default is most-likely increasing thus the financing rate will also climb up. In this condition, most of the banks will brake their financing activity and may lead to what so-called as "the credit crunch". The decreased financing volume would then affects in declining financing income, thus results in lower bank net margin. In a favor economy, the condition would be vise versa; Secondly, in the context of sharia banks operation, as the credit risk change (increase or decrease), the financing rate cannot immediately re-adjust since most of the financing portfolio is in the debt-like modes (Murabahah, etc.) which the level of return will remain the same until the financing is fully paid. In general, the result of this credit risk variable is in accordance with the finding of Ascarya and Yumanita (2010).

The result of BOPO and MOF are statistically significant for both groups with the expected sign. Meanwhile the coefficient of sharia commercial banks' COF is also consistent with the expected sign, but COF of the sharia business units shows an opposite sign. For sharia commercial banks, this result is confirms the

theoretical model and also implicitly supports the findings of Chong and Liu (2009) and Kaleem and Isa (2003). For the negative sign of the sharia business units' COF, the above explanation on the result of NPF may also apply for the same reason since COF is simultaneously associated with the financing rate (MOF) which determined with the measured risk level (risk-based pricing).

Summarizing, the estimation result proves that the net margin of sharia commercial banks and sharia business units in Indonesia is determined by two of theoretically bank-pure spread variables, those are the risk aversion variable (CAR) and the credit risk variable (NPF). Also, the bank specific variables used in this study, those are liquidity ratio (FDR), cost efficiency ratio (BOPO), financing margin (MOF) and cost of funds (COF), also have significant influence on the net margin. Some exemptions include the result of credit risk and cost of funds variables that may be the uniqueness of sharia banks. But this should be explored further in subsequent studies.

III. CONCLUSIONS

The main reasons justifying the importance of this study stand on two considerations. First, The asset and liability management between financing and funding in sharia banks is more complex than that of conventional banks given that sharia banks use revenue sharing principal on the funding side, where returns generated from financing (and any associated risks) will be shared with the depositors (Tarsidin and Warjiyo, 2006). Second, the Indonesian sharia banking industry in Indonesia has been developed into two business model, namely sharia commercial bank and sharia business unit as a subsidiary of the conventional parent bank. Whether sharia banking industry or each of the groups of business models has some particular features that we need to explore, focussing on the difference of the bank net margin behavior between sharia commercial banks and sharia business units.

The result of the study shows that in sharia commercial bank, the net margin is significantly influenced by financing to deposit ratio, capital adequacy ratio, operating cost to operating income, financing margin and cost of fund but the non-performing financing ratio does not significantly influence the net margin. On the sharia business unit, the non-performing financing ratio, operating cost to operating income, financing margin and cost of fund significantly influenced the net margin while the financing to deposit ratio and capital adequacy ratio are not significantly affecting the net margin. Interestingly, although almost all variables have the same sign of influence, the influence of cost of fund variable is opposite between the two sharia banking model. The estimation result of non-performing financing variable also shows an opposite sign than expected for both groups.

The plausible reasons for the result of non-performing ratio and cost of funds variables are as follows : The first is that in a condition of depressed economy, the financing rate will climb up as the default risk raises triggering the bank to hold their financing activity to what so-called as "the credit crunch". The financing volume would then decrease and results in declining of overall financing income, thus a lower bank net margin may exist. In a favor economy, the condition would be vice versa where banks make significant growth on financing distribution. Secondly, specifically in sharia banks operation, as the credit risk change (increase or decrease), the financing rate cannot immediately re-adjust since the portion of financing portfolio is mostly in the debt-like modes which the level of return will remain the same in the whole period of financing facility.

Regarding the importance of intermediation cost efficiency, the studies that incorporating other bank-specific and macroeconomic variables into the net margin model are encouraged to be explored. An important policy suggestion is raised by Tarsidin and Warjiyo (2006). They suggest that sharia banking, with its revenue sharing instrument, has some unique features specifically the sharia banks cost of funds would always be smaller than its operating income and present risk-sharing with its depositors over various risks faced by the bank in its financing activity. These two important features are very valuable for the optimality of the banking intermediation function and also the financial stability. It is therefore necessary to do so further research on the topic.

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Appendix A

Keterangan	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Bank Umum Syariah																			
Financing to Deposit Ratio (FDR)	95.21	94.02	93.05	93.90	93.90	89.91	86.66	88.85	89.37	89.15	89.57	90.05	92.56	90.13	90.72	90.82	90.67	90.26	88.03
Non Performing Financing (NPF)	4.33	4.67	5.02	5.29	5.34	5.55	4.95	5.56	5.83	5.49	5.20	5.44	5.09	5.30	5.30	5.14	5.16	5.13	4.84
Cost to Income Ratio (BOPO)	94.67	94.56	85.8	95.74	97.37	96.34	96.97	94.80	94.23	95.98	96.69	96.51	96.98	97.08	97.30	96.94	96.71	96.75	97.01
Capital Adequacy Ratio (CAR)	16.21	14.76	14.73	14.6	15.25	15.66	15.74	14.16	14.38	14.43	14.50	14.37	14.09	14.47	15.05	15.15	14.96	15.31	15.02
Margin of Financing	12.92	13.06	12.97	13.00	13.05	13.07	13.07	12.98	13.00	12.92	13.00	13.01	13.09	12.98	13.31	13.31	12.74	12.71	12.69
Cost of Fund	6.55	6.31	6.30	6.64	6.62	6.44	6.72	6.28	6.57	6.37	6.07	6.30	6.09	6.11	6.03	6.07	5.72	5.74	5.88
Net Margin	0.84	0.85	0.68	0.68	0.43 ¹⁾	0.62 ²⁾	0.52 ²⁾	0.97	0.86	0.75	0.68	0.69	0.55	0.56	0.48	0.52	0.55	0.57	0.52
Unit Usaha Syariah																			
Financing to Deposit Ratio (FDR)	121.38	123.50	122.82	122.65	111.57	112.06	109.02	110.40	109.73	111.72	109.50	109.63	109.25	110.02	109.25	107.71	107.01	108.92	104.88
Non Performing Financing (NPF)	2.68	3.19	3.25	2.79	3.00	2.82	2.55	2.90	3.05	2.93	3.04	2.95	3.76	3.78	3.70	3.68	3.66	3.46	3.03
Cost to Income Ratio (BOPO)	79.80	78.97	79.13	78.16	78.48	79.31	80.19	82.51	82.28	78.76	79.97	79.79	82.06	81.43	80.37	80.06	79.96	79.99	83.41
Capital Adequacy Ratio (CAR)	49.77	46.73	47.06	48.68	38.49	38.75	36.89	35.67	36.23	39.16	37.75	35.61	38.78	36.67	38.30	2.77	34.14	34.36	41.44
Margin of Financing	11.28	11.49	11.31	11.37	13.40	13.44	13.53	13.40	13.41	13.40	13.53	13.56	13.57	13.49	13.31	13.24	13.24	13.10	13.12
Cost of Fund	6.34	5.95	6.16	6.14	6.69	6.54	6.84	6.23	6.65	6.41	6.04	6.43	6.14	6.28	6.21	6.31	5.83	5.86	5.99
Net Margin	2.24	2.08	2.09	2.37	2.32	2.16	2.05	2.11	2.09	2.55	2.39	2.39	2.00	2.09	2.18	2.22	2.24	2.24	1.83

Keterangan	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17
Bank Umum Syariah																			
Financing to Deposit Ratio (FDR)	87.86	87.30	87.52	88.11	89.31	89.32	87.58	87.53	86.43	86.88	86.27	85.99	84.74	83.78	83.53	81.36	81.96		
Non Performing Financing (NPF)	5.46	5.59	5.35	5.48	6.17	5.68	5.52	4.67	4.80	4.68	4.42	4.72	4.78	4.61	4.82	4.75			
Cost to Income Ratio (BOPO)	95.28	94.49	94.40	94.71	99.04	95.61	96.15	96.96	96.27	97.21	95.91	96.22	95.09	93.35	92.34	92.31	92.26		
Capital Adequacy Ratio (CAR)	15.11	15.44	14.90	15.43	14.78	14.72	14.86	14.87	15.43	15.27	15.78	16.63	16.99	17.04	16.98	16.91	16.88		
Margin of Financing	13.36	13.38	13.36	13.32	12.91	12.17	12.23	12.33	12.12	12.42	12.22	12.08	12.21	12.03	12.01	11.98	11.76		
Cost of Fund	5.77	5.53	5.54	5.41	5.03	5.21	4.96	4.90	4.78	3.86	4.66	4.76	4.53	4.62	4.68	4.52	4.68		
Net Margin	1.20	0.94	1.00	1.00	0.17	0.78	0.69	0.53	0.65	0.50	0.74	0.68	1.11	1.11	1.26	1.24	1.25		
Unit Usaha Syariah																			
Financing to Deposit Ratio (FDR)	105.65	103.16	104.56	102.04	97.07	99.60	98.69	96.84	97.65	97.71	96.60	96.70	97.43	97.98	99.28	101.67	101.31		
Non Performing Financing (NPF)	3.32	3.33	3.73	3.58	3.97	3.49	3.54	3.46	3.34	3.31	3.26	3.49	3.67	3.55	3.50	3.47	3.40		
Cost to Income Ratio (BOPO)	81.78	77.05	78.32	81.93	80.14	79.53	79.29	79.01	78.50	77.27	77.18	82.85	74.51	72.78	75.07	74.40	73.35		
Capital Adequacy Ratio (CAR)	49.77	46.73	47.06	48.68	38.49	38.75	36.89	27.74	32.26	29.89	29.63	32.18	26.66	26.57	31.71	31.65	29.79		
Margin of Financing	11.25	11.16	11.08	11.02	10.68	10.68	10.65	10.60	10.57	10.61	10.52	10.39	10.36	10.31	10.26	10.23	10.15		
Cost of Fund	5.19	5.20	5.25	5.09	5.03	5.06	4.86	4.73	4.95	4.79	4.87	4.89	4.42	4.72	4.83	4.61	4.79		
Net Margin	2.20	2.55	2.44	2.01	2.19	2.26	2.24	2.27	2.30	2.44	2.44	2.00	2.84	2.85	2.81	2.74	2.81		

Komarruzaman "Factors influencing Net Margin of Sharia Commercial Banks and Sharia Business Unitsin Indonesia' International Journal of Business and Management Invention (IJBMI), vol. 08, no. 11, 2019, pp 60-68