

Business Model and Bank Risk in Indonesian Islamic Bank

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Abstract

This study aimed to analyze the relationship between the business model of bank's risk in Islamic banks in Indonesia. Bank risk is represented by Z-score, while business model is represented in two ways, namely the portion of fee-based income in income structure and the portion of nondeposit funding in funding structure. This study analyzed panel data observed through the data 33 Islamic banks in Indonesia in 2005 to 2015. The results of this study concluded that the overall size of the data portion of fee-based income effect on the risk of the bank, while the magnitude of the portion of nondeposit funding is not effected on bank's risk. Then, for robustness checks, We conducted a regression between variables to categorize Islamic banks into large and small Islamic banks. In the category of large banks, both fee-based income and nondeposit funding did not affect bank's risk, while for banks categorized as small, the magnitude of the portion of fee-based income has an influence on the risk of bank, while the magnitude of portion of non deposit funding has no effect the bank's risk.

Keywords

Islamic Bank, Bank Risk, Business Model, Fee Based Income, Non Deposit Funding

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Introduction

Islamic banking today shows impressive growth, which according to a report released by Ernest and Young (2016), Global Islamic banking assets at the end of 2014 has exceeded US \$ 882 billion and is projected to grow to US \$ 1.8 trillion in the year 2020. On this significant asset growth, Islamic banking is one segment of the financial industry's most promising in the world of global finance industry (Hasan and

Dridy, 2010). This condition indicates that Islamic banking is the answer and an alternative for the public who want to avoid the practice of interest.

The growth of Islamic banking also include the countries in Southeast Asia, Karwowski (2009) said that the growth in this area is very impressive, which Indonesia is one of the largest and influential countries in the Islamic finance industry in this region. Indonesian Islamic banking is the

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highest in the world in terms of growth rates of assets, where the average rate of growth in each year is equal to 29% in 2014 and then, where this condition is higher than Pakistan (27%), Turkey (25%), Qatar (22%) and Saudi Arabia (20%) (Ernest & Young, 2016).

In the last decade, it has been many researchers who study on Islamic banking, where the main focus of research on this topic is associated with differences in performance and instruments is used between Islamic banks and conventional banks (Srairi:2013). Chong and Liu (2009), did research in the context of the Malaysian banking, stated that Islamic banking in practice is not much different from conventional banking. While another research about the comparison between Islamic banks and conventional banks also conducted by Beck et al (2010) who was comparing the four aspects such as business orientation, cost efficiency, asset quality and the degree of stability.

The study of Islamic banking continues to grow from regulatory issues, supervision until the Islamic banking stability issues (Srairi, 2013) as conducted by Cihak and Hesse (2008), which stated that for the small category size, Islamic banks are more stable than conventional banks, while in the category of large, conventional banks are relatively more stable than Islamic banks. Cihak and Hesse (2008) also made a comparison between the level of stability of banks for the large and small category, where the result shows that the large-sized Islamic banks have a higher risk than small Islamic banks. Furthermore, the studies that discuss the risk-taking behavior of Islamic banks

also increased the risk by looking at the perspective of ownership structure, where is one of research as conducted by Srairi (2013) on the Middle East and North Africa. Srairi shows the results that empirically Islamic banks as stable as conventional banks.

For the next several studies, many researchers try to see the business model of Islamic banks against risk behavior of bank itself. According to Kohler (2014), the Business model is bank's ability to generate profit by understanding each element of income in its income structure and obligation on the liability side. Kohler represents business model into two things, first, the structure of income is measured with how large a portion of fee-based income in the total income of the bank and second, the funding structure which is measured by how much non deposit funding portion of total funding. In his research, Kohler assesses the magnitude of the portion of the fee-based income has the positive effect on bank's stability. The Kohler study is different to the Demircuc-Kunt and Huizinga (2010) study who believe the opposite opinion, that in the large portion, fee-based income will make the bank is likely to become unstable. Beside that as for the portion of non deposit funding, Kohler agrees with Demircuc-Kunt and Huizinga opinion who said that the bank-oriented retail will be less stable if the portion of nondeposit funding is large, while for the investment bank, Kohler assess the small portion of nondeposit funding that likely will make the bank becomes more stable.

On the above studies, we believe that the research on business model can be

studied further especially for Islamic bank's which is this study specifically aims to determine relationship of business models in banking to Islamic banks risk in Indonesia furthermore business model relations are represented into two things: first, income structure measured by amount of fee-based income portion of revenue bank. Second, on funding structure measured by the amount of nondeposit funding on banks liabilities. We consider it is important for doing this study besides for complement the existing literature on the Islamic bank stability, this paper can contribute to measuring the stability of Islamic banks from another point of view (business model).

Literature Review of Bank Risk and Business Model

Risks according to Uyemura & Deventer (1993) is a standard deviation or volatility of cash flows of the business. This definition could mean also that the risk of a variant on the condition of every possible distribution of the results, whether it be profit or loss can be attributed to a specific alternative.

Research on the bank's risk has been growing, in which researchers incorporate the business model of the banks as factors that affect the bank's risk. The business model is to conduct its business activities, banks learned each share of income in the income structure and try to compare it with the cost structure of funding or in the liabilities side. Understanding of banks on the income structure and funding structure to make banks trying to be creative and come up variations of the business models new bank, where the

variation to optimize the bank's assets (Demirguc-Kunt & Huizing, 2010).

Creativity banks in optimizing this asset becomes unavoidable, for more than two decades, banking industry has progressed very quickly, especially on technology and communication, so that many banks began to look at fee-based income as a significant share in contributing to income structure (DeYoung & Rice, 2003), and this condition applies both conventional banks and Islamic bank (Chang, 2012). Fee-based income in Islamic banks, according to Beck et al (2003), has a high portion to the total income, for doing his research Beck et al (2003) based on the population of data of Islamic banks in 141 countries around the world.

Fee-based income may be income derived from investment banking service charges, commission and trading is a new source of revenue and is regarded as an income diversification for banks (Altunbas et al: 2011). On Islamic banking, fee-based income is the nonfinancing income include revenue assurance, commission (which in this case can be either a sales commission on Sukuk/Islamic securities) or income other services such as currency sales (Sharf), pawn (Rahn), account management, payment transaction services, and others. (Shahimi et al, 2006).

But on the other hand, there is still ambiguity whether a dominant portion of the fee-based income may affect the bank's risk. In the context of the Islamic bank, Ashraf et al (2016) said Islamic banks rely more on fee-based income revenues tend to be more stable. Opinion Ashraf et al (2016) according to

previous studies conducted by Altunbas et al (2011) and Kohler (2014), in the context of conventional banks, stating that the bank has a major portion of fee-based income in income structure considered more stable than the Bank which had revenue a majority interest in its income structure. However, Kohler stated condition is different from the investment banks that are considered at high risk if the income fee-based income of his dominant in the income structure. In his research Ashraf et al (2016) using data from all conventional banks (commercial and saving) and Islamic banks in GCC countries (Gulf Cooperation Council) in the period 2000-2011, while Altunbas et al (2011) used the 1,100 banks in 15 European countries and the United States in the crisis and pre-crisis period (2003-2007), and Kohler (2014) using data on 15 countries in Europe with a total of as many as 25 966 observation which includes 3,362 banks in the period 2012-2014.

DeYoung and Roland (2001), Stiroh (2002), and Demircuc-Kunt and Huizinga (2010) has opposite view that the magnitude of the portion of the fee-based income in the income structure of banks caused banks to become unstable and increase bank's risk. In his research, DeYoung and Roland (2001) used data 472 commercial banks in the United States for the period 1988-1995, while Stiroh (2002) uses data bank in the United States in the period 1988 to 2001 with coverage of more than 15,000 observations. Then, Demircuc-Kunt and Huizinga (2010) used data on 1,334 banks in the world with 101 countries in the period 1995 to 2007.

Meanwhile, in order to optimize business activities in funding structure on its liabilities side, the bank is required to determine the exact size of the deposit and nondeposit funding on the composition of fund structure in order to obtain optimal profit. Non-deposit funding according to Bank Indonesia is a source of funding obtained other than Third Party Fund (DPK) in the form of securities, borrowings, and liabilities to other banks, where a model of nondeposit funding is not only applicable to conventional banks but also on Islamic banks as defined by Hassan (2006). The portion of non-deposit funding in Islamic banks confirmed by Beck et al (2013) is allowed during the Islamic bank not to deviate from the principles of sharia-compliant (There is no element of Maysir, Gharar, and Riba).

The benefits of non-deposit funding are that banks can perform fundraising in large numbers, quickly and with a relatively low cost. But the question of whether the funding structure is more dominant against nondeposit funding affect the risk of the bank, there are several opinions. Demircuc-Kunt and Huizinga (2010) argue that the bank's risk is higher if the portion of non-deposit funding dominant in the structure of funding. This opinion was corroborated by Kohler (2014) which stated the same thing, especially in a retail-oriented bank. While Altunbas et al (2011) stated that the lack of diversification in funding structure has a greater risk, especially in times of crisis.

Furthermore, in Indonesia, the development of Islamic banks has recorded significant growth which is Islamic banks assets in December 2016

has reached 356 trillion or has a market share of 5.21% of the total assets of banks in Indonesia (OJK: January 2017). This condition shows quite a lot of Indonesian customers who choose Islamic banks as an alternative compared to conventional banks. There are several reasons why some customers make Islamic banks as the preference, firstly, sharia compliance / religious affiliation, where adherence to religious orders becomes a major reason in choosing banks (Kontot et al: 2016), secondly, as another alternative in maximizing profits. (Aysan et al: 2017).

Methodology

In this study, we took samples in Islamic banking industry in Indonesia that includes Islamic Banks (BUS) and Islamic Business Unit (UUS). BUS and UUS number registered in Bank Indonesia is 11 and 24. We took data on nearly the entire population, of whom, taken 11 BUS and UUS 22. There are 2 UUS that are not taken since they do not have a reporting in Bank Indonesia over the past of two years. The whole population is taken because the number of Islamic banks in Indonesia is still relatively small and newly established, moreover by taking entire population for the sake of robustness itself.

We followed Gamaginta and Rokhim (2012) which has been developing models of Cihak and Hesse (2008), where UUS is a bank of its own, this is because the financial statements UUS that existed and has been separated. This study uses secondary data combined with frequency unbalanced panel of quarterly financial reports banks listed on the official website of Bank Indonesia and Financial Services Authority of Republic

of Indonesia during the period December 2005 to June 2015. Finally, we estimate data by using E views 9.

Furthermore, for measuring bank's risk, We used a Z-Score, as conducted by Stiroh & Rumble (2006), Demirguc-Kunt and Huizinga (2010), Houston (2010), Srairi (2013) and Kohler (2014). Z-score is proxied as the probability of insolvency risk, in addition to the Z-score is also used as a measurement of the level of bank stability (Laeven & Levine, 2009), so that high level of Z-score can be interpreted a lower risk of the bank (Srairi 2013) & (Kohler 2014). Z-score can be explained:

$$\frac{\text{Mean of ROA} + \text{Capital Asset Ratio}}{\text{Standary Deviation of ROA}}$$

ROA (Return on Assets) is calculated based on bank's net profit divided by the bank's assets for the year, while the Capital Asset Ratio is calculated based on bank's capital divided by assets of the bank for the year. While the business model is measured in two ways, income structure, and the funding structure. Income structure is proxied as amounts of fee-based income (FBI) of bank's income. Ashraf et al (2016), Kohler (2014) and Altunbas et al (2011) wrote that high portion of fee-based income indicates that the bank has well managed on income diversification and has a negative relationship with the bank's risk. While the funding structure is proxied as amounts of non-deposit funding of funding structure of bank's, in conducting this proxy, we expect a positive relationship between the high portion of non-deposit funding to the bank's risk. (Demirguc-Kunt and Huizinga (2010) and Kohler (2014)).

Table 1. Variables and Operational Definitions

No	Variable	Descriptions, Proxy and Notation	Expected sign
1.	Insolvency risk	Is insolvency risk is proxied by the ratio of the Z-score is Mean of ROA + Capital Asset Ratio divided by standard deviation of ROA. Notation: Z-Score	Dependent Variable
2.	Revenue Structure (Portions of fee based income)	Income structure proxied as the magnitude of portion of fee-based income to bank's income. Notation: FBI	Negative
3.	Funding structure (Portions of non deposit funding)	Funding structure proxied as the magnitude of portion of non-deposit funding to bank's funding. Notation: NDF	Positive
4.	Leverage ratio	Leverage Bank is proxied by a proportion of bank's capital to bank assets for the year. Notation: LVR	Negative
5.	Bank size	Bank size is proxied by logarithm of total assets. Notation: SIZE	Negative
6.	Efficiency Bank	Is proxied by cost to income ratio. Notation: BOPO	Positive
7.	Profitability	Profitability is proxied by the ROA. Notation: ROA	Positive
8.	Financing to total assets	Comparison of financing to assets. Notation: FTA	Positive

We also include a bank-specific as a control variable where the variable also probably influencing on bank's risk. We do proxy bank specific to five things: leverage ratio, bank size, efficiency, profitability and financing to assets ratio.

Leverage ratio is proxied as a proportion of capital to bank's assets for the year (LVR), we expect this ratio is negative and associated with the bank's risk. High capital indicates low risk of the bank itself (Kohler, 2014) and (Srairi, 2013). Bank size as measured by the logarithm of total bank assets. Garcia-Marco & Robles-Fernandez (2008) said the larger banks better for managing a risk so that the risk behavior is also getting smaller.

Garcia-Marco & Robles-Fernandez opinion has also strengthened by Srairi (2013) and Kohler (2014). Bank efficiency, as measured by the cost to income ratio (BOPO). High BOPO indicating that the bank has lower capacity on managerial and riskier and expected a positive relationship with risk variable. Profitability, as measured by Return on Assets (bank's net profit versus bank assets for the year). Srairi (2013) assumes that high ROA ratio tends to the high level of risk anyway in accordance "high-risk high return", so we assume this variable has a positive relationship with one another. Financing to assets, Kohler (2014) says that the bank focuses on financing activities are

more prone to the risk of exposure, so we expect this positive relationship with another.

Here are brief submitted proxy variables and the direction of relationship in the table above.

Table 2. Descriptive Statistics

	Full Sample			Large Banks			Small Banks		
	Obsv.	Mean	St.Dev.	Obsv.	Mean	St.Dev.	Obsv.	Mean	St.Dev.
<i>Bank's Risk</i>									
<i>Variable</i>	853	5,612	5,548	171	10,582	5,938	682	4,292	4,491
<i>Z-score</i>									
<i>Business Model</i>									
<i>Variable</i>									
FBI	853	0,194	0,153	171	0,199	0,194	682	0,196	0,150
NDF	853	0,084	0,100	171	0,065	0,077	682	0,089	0,104
<i>Bank Specific</i>									
<i>Variable</i>									
LVR	853	0,061	0,076	171	0,069	0,041	682	0,062	0,092
SIZE	853	14,132	1,513	171	16,154	1,212	682	13,659	1,243
BOPO	853	0,761	0,197	171	0,797	0,111	682	0,753	0,220
ROA	853	0,021	0,019	171	0,016	0,010	682	0,022	0,020
FTA	853	0,728	0,133	171	0,766	0,083	682	0,719	0,142

Noted : This data has winsorized

Then, for the empirical model, we estimate this paper by the following equation:

$$y_{it} = \alpha + \beta_1 FBI_{it} + \beta_2 NDF_{it} + \beta_3 B_{it} + \alpha_1 - \varepsilon_{it}$$

y_{it} is dependent variable (bank's risk) that proxied as Z-Score, i indicating the name of bank ($i = 1, 2, \dots$ etc.), t as the time period ($t = 12: 2005, 3: 2006, \dots, 6: 2015$). The FBI is the portion of fee-based income to income structure and NDF is the portion of non-deposit funding to funding structure. The B_{it} is controlled variables (bank specific) is proxied by leverage ratio, bank size, bank efficiency, profitability and financing to assets ratio.

We used a fixed effect model with General Least Square (GLS) Weight Cross

Section as techniques of estimation, and of the robustness test we used a fixed effect model in the category of large banks, and random effects models for small banks. techniques of estimation are used both is the General Least Square (GLS) Weight Cross Section.

Descriptive Statistics Analysis

The table 2 shows the statistics of Islamic banking in Indonesia, where the total observation as many as 853 units consisted of large Islamic bank assets as many as 171 units and small Islamic banks have 682 units of observation. Z-score of the whole sample data showed 5.612 consisted of larger Islamic bank as many as 10.582 better than small Islamic banks (4.292). The result shows that the

risk of the larger bank of Islamic banks is better than the small assets. This condition is consistent with the study conducted by Cihak and Hesse (2008) which says that larger Islamic banks tend to be more stable than the small Islamic banks and shows that a larger bank management is more professional than small Islamic banks.

Based on the statistical results descriptive, the share of fee-based Islamic bank is big enough where the overall average fee-based income amounted to 19.40% (0.194) of the total income of the bank's operations. Meanwhile, if the income is derived by category, showing no significant difference between larger Islamic banks (19.90 %) and small Islamic (19,60 %). This result showing that Indonesian people still reluctant to use Islamic banks for the transaction an evidenced by Islamic banking assets still has the small portion (4,84 %) compared to the entire national banking assets in Indonesia 4.84 %.

In other business models, funding structure, the descriptive statistical results the amounts of non-deposit funding in the funding structure of Islamic banks amounted to 8.40% (0.084), indicating that overall funding Islamic bank is still supported by the Third Party Funds (DPK). Meanwhile, if the funding structure is derived by category, small Islamic banks have greater share (8.90%/0.089) than large Islamic banks (6.50%/0.065) more rely DPK rely for funding support, this condition showing a large Islamic banks have adequate banking facilities, such as office services and more comprehensive IT network, as an incentive to attract the public.

Leverage Ratio (LVR) results that overall Islamic bank capital is at 6.1% (0.061), then if we derived by category, the composition of bank capital are large banks better than small banks (0.069 this results showing a large Islamic bank's healthier leverage. Then, Size of Islamic banks in the form of the natural logarithm of total assets, showed 14,132 that if derived by category, large banks filled only by five banks (BNI Syariah, BRI Syariah, Permata Syariah, BSM, Muamalat) and still have a greater score (16.154) than small banks which contains of 33 islamic banks, the statistics indicating that the Indonesian islamic banking is concentrated, because large islamic banks relative aged much longer than small islamic banks and further supported by parent company's, which are banks that hold the majority in the portion of Indonesian banking industry.

The other descriptive results that Islamic banks have a high composition of financing in the structure of assets (0.728), it's showing that Islamic banks make financing as a strategic asset in generating profits. Then, based on by categories of banks, large banks have high composition for financing in asset structure (0.766) than small banks (0.719), it demonstrates that large Islamic banks more aggressively.

For overall data, the descriptive results of Indonesian Islamic banks is efficient enough (76.1%), and then if we scaled back on each category, small Islamic banks is more efficient (0,753) than large Islamic banks (0.797), thus statistically, small Islamic have better managerial capabilities than large Islamic banks assets. Average ROA in Islamic banks is 0.021, and if we derived for the category,

small Islamic banks have a level of good profitability, which amounted to 0,022 rather than large Islamic banks (0,016), it demonstrates that small Islamic banks better for optimizing all of its assets to achieve profitability.

Results

Table 3 shows that the number of observations is 853-panel observations, where Adj R-Squared of this model is at 0.9695 which shows the level of determination of the independent variable and control variable to dependent variable and can also be interpreted that Z-score can be explained as much as 96.95% by independent variables and control variables. F-Statistic on this

modeling is equal to 0.0000 thus we can conclude that the independent variable and control variable together have a significant influence on Z-score, so that we can say this model is good enough.

Fee-based income showed negative coefficient and the significance level of alpha below 5%, which means that the variable fee-based income has a significant effect on the bank's risk and have a negative relationship with one another. These results are consistent with the hypothesis in the previous chapter, where the greater portion of fee-based income it will make bank risk decreases, this is because the banks are more able to do diversify their income.

Table 3. Full Data Results

	Z-score	
	Coef.	t-statistic
<i>Variable Business Model (Independent)</i>		
FBI	(0,425)	(2,293) **
NDF	0,128	0,377
<i>Variable Bank Specific (Control)</i>		
LVR	51,896	46,363 *
Size	0,102	3,699 **
BOPO	1,084	4,647 *
ROA	48,786	20,544 *
FTA	(0,200)	(0,886)
Observations Number	853	
Adj R-Squared	0,9695	
F-Statistic	0,0000	

Noted:

1. Data presented has winsorized.

2. *) indicates a level of significance below 1%, **) indicates significance level below 5%, ***) indicates a level of significance below 10%

For variable non-deposit funding has a positive relationship, but did not have a significant effect on the bank's risk. These results differ from Demirguc-Kunt and Huizinga (2010) and Kohler, who said that the magnitude of the portion of non-deposit funding compared favorably to bank's risk. We suspect this condition due to the still small portion of non-deposit funding from the average individual Islamic banks is only equal to 0084 of the bank's total operating income. The small portion of non-deposit funding is also almost evenly throughout the Islamic bank, where the standard deviation of the portion of non-deposit funding only stands at 0,100 or not so far from the numbers mean.

For the control variables, LVR which is the ratio of total capital to assets showed a significant positive coefficient on the bank's risk, these results become interesting because it defines a greater capital affect bank's risk. We speculate that is caused, banks that have large capital more aggressive in they feel meet the requirements of capital adequacy ratio (CAR).

Size showed the significant positive coefficient result which means the bigger bank show bank risk getting bigger, this opinion is different from Kohler (2014), Srairi (2013) and Garcia-Marco and Gobles-Fernandez (2008) that says otherwise. We suspect that magnitude of risk of a large bank in accordance opinions of Ashraf et al (2016) who said that the role of major banks to the stability of the financial industry led to the bank's risk behavior became more excessive (too big too fail).

Furthermore, BOPO has a significant positive coefficient figure, where this

proves more efficient bank has more bank risk is low. While ROA also showed a significant positive coefficient, which means that the greater bank capitalizes profit making bank risk becomes higher, which is consistent with "high-risk high return", in accordance with the Srairi opinion (2013). For FTA is the ratio of the total financing to total assets, showed negative and insignificant, we suspect this condition because Islamic banks more cautious in extending financing, where one of the fundamental aspects of Islamic banks is the underlying transactions are clear and more oriented to the sector real as revealed by Ali (2011).

Robustness Test

We conducted a robustness test which divided into two groups of Islamic banks, namely large banks, and small banks, where the large banks for assets > 12 trillion, while the small bank for assets < 12 trillion.

The total number of observations is 853 observations, with details of 171 for large banks and 682 for small banks. Adj R-squared in large banks is 0.9881, where this model can be explained by Z-score (98.81%) of all the variables that affect it. For the small bank category, Adj. R-squared appearing is equal to 0.7210 which means the level of determination and control of independent variables on the dependent variable is equal to 72.10%.

For the F-statistic, both large banks and small banks have a value of 0.0000, which means that both models (independent and control variables) have a significant influence on the dependent

variable (Z-score). This condition can be explained that models are good enough and reliable.

Furthermore, For the large banks, fee-based income has shown a negative coefficient alone but has no significant effect on bank's risk. This situation is different with the hypothesis in the previous chapter that describes that portion of fee-based income has only a negative relationship and has the significant effect on the bank's risk. While for nondeposit funding though has a positive relationship, but did not have a significant effect on bank's risk. This condition is in accordance with the results of the regression on overall

data in the previous session, and also prove that the hypothesis is built not proven. On insignificant results for all variable independent to the Z-score, we estimated that the number of Islamic banks grouped into this categories is not too much (only five banks).

Then, for small banks, a robustness test is consistent with the regression in the previous section, where fee-based income has a significant influence on the Z-score and have a negative relationship one another. This further reinforces the robustness test hypotheses built earlier and also in line with the study conducted by Kohler (2014) and Altunbas et al (2011).

Table 4. Robustness Checking

	LARGE BANKS		SMALL BANKS	
	Z-score		Z-score	
	Coef.	t-statistic	Coef.	t-statistic
<i>Variable Business Model (Independent)</i>				
FBI	(0,620)	(1,268)	(0,783)	(1,729)***
NDF	0,732	0,885	0,620	1,073
<i>Bank Specific (Control Variable)</i>				
LVR	109,399	63.034*	43,895	37,765*
Size	0,091	1,461	0,311	5,845*
BOPO	1,409	1,760***	2,705	6,433*
ROA	89,114	10,226*	56,968	12,346*
FTA	0,408	0,510	(0,362)	(0,873)*
Observation Number	171		682	
Adj R-Squared	0,9881		0,7210	
F-Statistic	0,0000		0,0000	

Noted:

1. Data presented has winsorized.

2. *) indicates a level of significance below 1%, **) indicates significance level below 5%, ***) indicates a level of significance below 10%

Meanwhile, on nondeposit funding variable also showed consistent results of the regression that we did in the whole data sample in the previous session this happens because the portion of non-deposit funding on Indonesian Islamic banking is still small.

In control variables, LVR showed a significant positive number which is consistent with the previous regression. Size in large banks showed positive coefficient results are not significant, we thought that the number of samples is not many, only covers five banks. While the small banks, size showed significant positive numbers, this is consistent with the regression on the entire bank.

For BOPO variable, both banks (large and small banks) showed a significant positive number, which means that it strengthens the banks that have high BOPO indicates less adept at managing finances, resulting in inefficient and ultimately will make the bank's risk is higher. ROA, variable testing is also consistent with results of previous regression where high ROA will make the bank's risk is higher. Further to FTA, on both banks alike showed no significant this is in accordance with our opinion of the previous session that Islamic banks tend to be channeled to the real sector so that high/less of financing may not affect any of bank's risk.

Conclusion

This study was conducted to determine how the influence of business model of Indonesian Islamic bank into the bank's risk, we represent business model into 2 things, namely income structure and funding structure. Income structure is

proxied by amounts of fee-based income to operating income, while the funding structure is proxied by amounts of non-deposit funding to bank funding. On the data processing that we do, then the conclusions are as follows:

1. Income structure is shown to have a significant effect on the bank's risk and has a negative correlation with each other. These results are consistent with the hypothesis that was built in the previous chapter, where the greater portion of fee-based income it will make bank risk decreases, this is because the banks are more able to do diversify their income can be more likely to survive. These results also indicate that our study is in line with the study conducted by Kohler (2014) and Altunbas et al (2011).
2. Funding structure did not have a significant effect on bank's risk. We suspect this condition due to the portion of non-deposit funding of each Islamic bank is still small only equal to 0,084 (mean) of the bank's total operating income. The small portion of non-deposit funding is also almost evenly throughout the Islamic bank, where the standard deviation of the portion of non-deposit funding only at 0,100 or not so far from mean.

Notes on Contributors

Panji Patra Anggaredho is a practitioner of Islamic banking, His research interest is Risk Management.

Rofikoh Rokhim is a senior lecturer of Management Department of University of Indonesia. His research interest is risk management, bank stability dan financial industry.

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