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Does Islamic Financing Matter for Economic Growth?

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ABSTRACT

Background: Financial intermediaries, such as the commercial banks play a vital role in providing and channeling sufficient capital into the economic entities in a productive and resourceful manner in order to contribute more and more economic growth opportunities in the country. **Objective:** This study investigates the relationship between Islamic financing and economic growth in Malaysia and Indonesia. **Results:** The results reveal that there is a long-run relationship between Islamic financing and economic growth in both Malaysia and Indonesia. However, in the short-run, there is no causal relationship between Islamic financing and economic growth in Malaysia but there is a bi-directional causal relationship in Indonesia. However, in the long-run, we find evidence of a unidirectional causality running from Islamic financing to economic growth in both countries thus supporting the 'finance-led growth hypotheses. **Conclusion:** Government in both countries should continuously support and enhance the Islamic banking sector to stimulate the economic

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INTRODUCTION

The financial-growth nexus is a commonly accepted idea/ theory that financial development has the potential to lead greater economic growth (Schumpeter, 1911; Shaw, 1973; and McKinnon, 1973). Patrick (1966) also noted that the financial sectors are one of the vital sources for the growth of the economy. Financial intermediaries, such as the commercial banks in any country, play a vital role in providing and channeling sufficient capital into the economic entities in a productive and resourceful manner in order to contribute more and more growth opportunities in the country's economy. Efficient financial intermediaries are able to perform critical functions such as reducing transaction cost, minimizing information and monitoring costs, and lastly providing financial or monetary support to the economy-involved participants.

On the other hand, Robinson (1952) and Lucas (1988) have different viewpoints on this matter, arguing that the actual role of the financial sector is overly-exaggerated and the rationale is that the output growth is the main reason creating additional demand for the financial services and the financial sector is only there to responds to those demands automatically. In recent studies, Maswana (2009), Shahbaz (2009), Mukhopadhyay and Pradhan (2010), Mukhopadhyay, Pradhan, and Feridun (2011) discovered that there are different relationships and contributions of financial development to the economic growth of the countries.

Although there have been voluminous number of studies examining the finance-growth nexus, the results from previous studies are still conflicting. For example, Maswana (2009) shows a significant relationship between financial development and economic growth. Blanco (2009) demonstrates that there is one-causality effect from economic growth to the financial development. However, Mukhopadhyay and Pradhan (2010) suggest that there is no relationship between the financial development and economic growth. The literature review has been extended to the role of Islamic finance on economic growth. For example, Furqani and Mulyany (2009) found that economic growth significantly influence the Islamic bank's development but not vice versa. However, Abduh and Omar (2012), Abduh and Chowdhury (2012), Farahani and Hossein (2012), Brahim and Omar

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(2012), Thaker (2013), Yusof and Bahlous (2013), Farahani and Dastan (2013), and Gheeraert and Well (2013) provide evidence that there exists a bi-directional relationship between Islamic finance and economic growth.

Despite the global economic and financial challenges, Islamic finance has demonstrated its resilience by recording double-digit growth rates across all sectors of banking, *sukuk*, funds and *takaful* to register an estimated US$1.8 trillion in assets as at end-2013 with average annual growth of 18.6% (Securities Commission Malaysia, 2013). Islamic banking sector continues to dominate the global portfolio of Islamic financial assets with 79.8% contribution in 2013.

Since the results reported in the previous studies still inconclusive, therefore this issue is still open for further empirical examination. In this paper we aim to examine the relationship between Islamic financing and economic growth in both Malaysia and Indonesia. Malaysia and Indonesia are among the most dynamics Islamic markets globally. Malaysia for example leads the global *sukuk* sector in both number of issuances and *sukuk* outstanding since the inception in 2000 with a 69% share in 2013 amounting to US$82.4 billion Indonesia's *sukuk* market ranked number four at 5% share in the same year. In terms of number of funds, Malaysia retains the top position with 28% share and Indonesia with 8% ranked the third position (Securities Commission Malaysia, 2013). We hope this paper could shed some light on this issue and further contribute to the literature.

The rest of this paper is structured as follows. In the next section, data and methodology is discussed. Next we present the empirical findings and discussion. Lastly, we conclude the paper.

Data And Methodology:

Data Description:

The monthly data for the selected variables in this study is obtained from December 2006 until October 2011 in Malaysia and Indonesia. The data for study are mostly obtained from the Department of Statistic Malaysia (DoSM), DataStream, Central Bank of Malaysia and Bank of Indonesia. This study uses the Industrial Production Index (IPI) as a proxy for economic growth, Trade activities (TRADE), Stock Price Index (SPI) and total Islamic banks' financing (IF) as the indicator for Islamic finance development. All variables are transformed into natural logarithm.

Empirical Method:

This study aims to examine the relationship between the Islamic financing and economic growth. Focusing on both of these two variables in bivariate context may not be satisfactory to test their relationship. There may have cyclical factors that might have effect on the economic growth. Therefore, we also include trade activities and stock price index as control variables. The equation for this study would be as follows:

$$IPI = \int (IF, TRADE, SPI) \qquad (1)$$

This study uses a standard time-series econometric technique of Johansen (1988) and Johansen and Juselius (1990) cointegration test, henceforth the JJ and Granger causality to examine the relationship between Islamic finance and economic growth. Since the method is widely utilized in the literature, we discuss only those aspects that are suitable in this study. For appropriate model specification, we execute two commonly used unit root tests, Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) to determine the variables orders of integration. After that, to test for long-run relationship, we employ the JJ cointegration test. We specify the appropriate lag structure that renders the error term serially uncorrelated. We use Ljung-Box Q test in order to detect non-auto-correlated residual. Lastly, we perform Granger causality test to examine the dynamic relationship between the variables.

Empirical Findings:

Descriptive Statistics:

Table 1 shows the descriptive statistics of the data which comprises of the sample means, maximums, minimums, standard deviations, skewness, kurtosis and Jarque-Bera statistics. Through the monthly period from December 2006 to October 2011, the Industrial Production Index (IPI) in Malaysia records a positive growth rate of 0.07% monthly. However, Indonesia has recorded the highest growth rate at 0.77% compared to Malaysia. Besides that, Both Malaysia and Indonesia Islamic banks' total financing (IF) also show a positive growth rate as well at 1.54% and 2.52% respectively. Furthermore, the mean growth rate of trade activities (TRADE) in Malaysia is also positive at 0.31% but is lower than Indonesia at 1.19%. In addition, the Kuala Lumpur Composite Index of Malaysia records a growth rate at 0.53% as compared to Jakarta Composite Index at 1.28%.

Table 1: Descriptive Statistics

Country	Variables	ΔIPI	ΔIF	ΔTRADE	ΔSPI
Malaysia	Mean	0.000687	0.015437	0.003103	0.005313
	Maximum	0.140888	0.040565	0.245522	0.127032
	Minimum	-0.113514	-0.009165	-0.169347	-0.165142
	Std. Dev.	0.049978	0.008945	0.089087	0.047686
	Skewness	0.366542	0.597870	0.465429	-0.714414
	Kurtosis	3.883050	4.517204	3.400340	5.007119
	Jarque-Bera	3.183206	9.018276	2.481357	14.66935

	Probability	0.203599	0.011008	0.289188	0.000653
Indonesia	Mean	0.007740	0.025227	0.011852	0.012789
	Maximum	0.060194	0.088475	0.180576	0.183412
	Minimum	-0.067965	-0.107767	-0.228640	-0.377193
	Std. Dev.	0.016325	0.035851	0.089641	0.084109
	Skewness	-1.036258	-1.627393	-0.139117	-1.711685
	Kurtosis	10.93483	7.221837	2.879445	9.445214
	Jarque-Bera	162.5374	68.67572	0.222206	128.7123
	Probability	0.000000	0.000000	0.894847	0.000000

Notes: Δ refers to first differenced form

Correlation Analysis:

Table 2 demonstrates the correlation between the variables in Malaysia and Indonesia. From the table, in Malaysia the IPI is positively correlated with IF, TRADE and SPI. TRADE and IPI have the highest correlation at 0.85 while TRADE and IF is the lowest. For Indonesia, only SPI is has negative correlation with IPI. The highest correlation is between the IPI and IF.

Table 2: Correlation Coefficients

	Variables	ΔIPI	ΔIF	ΔTRADE	ΔSPI
Malaysia	ΔIPI	1.00			
	ΔIF	0.23	1.00		
	ΔTRADE	0.85	0.22	1.00	
	ΔSPI	0.15	-0.04	0.22	1.00
Indonesia	ΔIPI	1.00			
	ΔIF	0.27	1.00		
	ΔTRADE	0.24	0.29	1.00	
	ΔSPI	-0.06	0.002	0.18	1.00

Unit Root Tests:

Table 3 shows the results from the ADF and PP test statistics. The results show that the variables are non-stationary at level but stationary in the first differenced thus indicates that all variables are *I*(1) process for both Malaysia and Indonesia.

Table 3: Unit Root Tests

Country	Variables	Level		First Difference	
		ADF	PP	ADF	PP
Malaysia	IPI	-2.13	-4.47	-3.07	-15.03*
	IF	-2.42	-3.13	-5.96*	-5.90*
	TRADE	-2.97	-3.09	-10.01*	-9.98*
	SPI	-1.46	-1.57	-5.70*	-5.75*
Indonesia	IPI	-2.62	-1.92	-4.78*	-4.78*
	IF	-2.11	-1.83	-6.00*	-5.97*
	TRADE	-2.606	-2.61	-9.08*	-9.09*
	SPI	-1.81	-1.76	-5.38*	-5.33*

Cointegration Results:

Both trace and max statistics show evidence of co integration among the variables in both Malaysia and Indonesia. Thus, these variables have a long-run relationship and tied together in the long-run and their deviations from the long-run equilibrium path will be corrected. These results are consistent with those of Abduh and Omar (2012), Abduh and Chowdhury (2012), Farahani and Hossein (2012), Brahim and Omar (2012), Thaker (2013), Yusof and Bahlous (2013), and Farahani and Dastan (2013).

Table 4: JJ Cointegration Tests

Null Hypothesis	Malaysia		Indonesia		5 percent critical value	
	Trace	Max	Trace	Max	Trace	Max
H_0: r = 0	56.78**	30.76**	77.28	37.33	47.85	27.58
H_0: r ≤ 1	26.02	16.37	39.95**	26.54**	29.79	21.13
H_0: r ≤ 2	9.65	8.96	13.41	11.88	15.49	14.26
H_0: r ≤ 3	0.694	0.69	1.52	1.52	3.84	3.84

Notes: The optimal lag length chosen which is sufficient to make the error terms serially uncorrelated.

Granger Causality Results:

Table 5 shows the results from Ganger causality tests. Several interesting dynamic causal relationship exists in both Malaysia and Indonesia. We note that, there is no short-run relationship between Islamic financing and economic growth in Malaysia. However, in the long-run, we find that Islamic financing significantly influence economic growth in Malaysia but not vice versa as shown by ECT (-0.20). In addition, there seems to be short-run

unidirectional causalities relationship running from Islamic financing to TRADE, TRADE to SPI and IPI.

Table 5: Granger Causality

	Hypothesis	Chi-Sq	p-value	Concluding remarks
Malaysia	ΔIF =/=> ΔIPI	0.6175	0.7343)	ΔIF =/=> ΔIPI
	ΔTRADE=/=>ΔIPI	8.8171**	0.0122	ΔTRADE==>ΔIPI
	ΔSPI =/=> ΔIPI	2.9471	0.2291	ΔSPI =/=> ΔIPI
	ΔIPI =/=> ΔIF	0.5613	0.7553	ΔIPI =/=> ΔIF
	ΔTRADE =/=> ΔIF	0.6673	0.7163	ΔTRADE =/=> ΔIF
	ΔSPI =/=> ΔIF	1.5754	0.4549	ΔSPI =/=> ΔIF
	ΔIF =/=> ΔTRADE	11.8409***	0.0027	ΔIF ==> ΔTRADE
	ΔIPI =/=> ΔTRADE	1.5333	0.4646	ΔIPI =/=> ΔTRADE
	ΔSPI =/=> ΔTRADE	2.0162	0.3649	ΔSPI =/=> ΔTRADE
	ΔIF =/=> ΔSPI	0.7134	0.7000	ΔIF =/=> ΔSPI
	ΔIPI =/=> ΔSPI	0.1659	0.9204	ΔIPI =/=> ΔSPI
	ΔTRADE =/=> ΔSPI	8.7040**	0.0129	ΔTRADE ==> ΔSPI
	(ΔIF, ΔTRADE and ΔSPI) =/=> ΔIPI	[-0.1992] ** {-3.0193}		(ΔIF, ΔTRADE and ΔSPI) ==> ΔIPI
	(ΔIPI, ΔTRADE and ΔSPI) =/=> ΔIF	[-0.0040] {-0.2180}		(ΔIPI, ΔTRADE and ΔSPI) =/=> ΔIF
Indonesia	ΔIF =/=> ΔIPI	15.2439***	0.0042	ΔIF ==> ΔIPI
	ΔTRADE=/=>ΔIPI	7.9755*	0.0925	ΔTRADE==>ΔIPI
	ΔSPI =/=> ΔIPI	21.9389***	0.0002	ΔSPI ==> ΔIPI
	ΔIPI =/=> ΔIF	12.6858**	0.0129	ΔIPI ==> ΔIF
	ΔTRADE =/=> ΔIF	1.5770	0.8129	ΔTRADE =/=> ΔIF
	ΔSPI =/=> ΔIF	1.1688	0.8832	ΔSPI =/=> ΔIF
	ΔIF =/=> ΔTRADE	3.7629	0.4390	ΔIF =/=> ΔTRADE
	ΔIPI =/=> ΔTRADE	6.5003	0.1648	ΔIPI =/=> ΔTRADE
	ΔSPI =/=> ΔTRADE	4.9353	0.2940	ΔSPI =/=> ΔTRADE
	ΔIF =/=> ΔSPI	17.6469***	0.0014	ΔIF ==> ΔSPI
	ΔIPI =/=> ΔSPI	13.1318**	0.0106	ΔIPI ==> ΔSPI
	ΔTRADE =/=> ΔSPI	9.3850*	0.0522	ΔTRADE ==> ΔSPI
	(ΔIF, ΔTRADE and ΔSPI) =/=> ΔIPI	[-0.2206] ** {-2.4241}		(ΔIF, ΔTRADE and ΔSPI) ==> ΔIPI
	(ΔIPI, ΔTRADE and ΔSPI) =/=> ΔIF	[-0.1142] {-1.3512}		(ΔIPI, ΔTRADE and ΔSPI) =/=> ΔIF

Notes: ***, ** and * denote significance at 1%, 5% and 10% level respectively. =/=> Not Granger-caused; ==> Granger caused. [ ] refers to error correction term (ECT) and { } refers to t-statistics.

However, in Indonesia, the results show that there is a bi-directional short-run causality relationship between IPI and IF. In the long-run also we note that Islamic financing significantly influence economic growth (ECT = -0.22). In addition, IPI seems to be affected by TRADE and SPI. Both SPI and IPI have a bi-directional causality relationship in the short-run. This results for Indonesia are in line with those of Hahn (2005), Abduh and Omar (2012), Abduh and Chowdhury (2012), Farahani and Hossein (2012), Brahim and Omar (2012), Thaker (2013), Yusof and Bahlous (2013) and Farahani and Dastan (2013).

In the long-run, we note that Islamic financing significantly influence economic growth in both Malaysia and Indonesia. This supports the 'finance-led growth hypothesis'. Patrick (1966) argued that the existence of financial sector and financial intermediations in channeling the limited resources from surplus units to deficit units would provide efficient allocation resources thereby leading other economic s sectors to grow. In line with Majid (2008), Al-Yousif (2002) also documented that financial development positively affects economic growth in developing countries based on panel data analysis. However, the results are not consistent with Furqani and Mulyany (2009) and Majid and Musnadi (2010). For example, Furqani and Mulyany (2009) find that the economic growth causes the Islamic banking to develop in Malaysia.

Conclusion:

This study investigates the relationship between Islamic financing and economic growth in Malaysia and Indonesia during the period of December 2006 until October 2011. We use monthly data and standard time series econometrics of co-integration test and Granger causality tests. The results show evidence of no short-run Granger causality between Islamic financing and economic growth in Malaysia but there exists a bi-directional Granger causality between the variables in Indonesia. However, in the long-run we find evidence of a unidirectional causality running from Islamic financing to economic growth for both countries. This results support the 'finance-led growth hypotheses. This result is in line with those Patrick (1966), Al-Yousif (2002) and Majid (2008). Therefore, financial institutions work as an effective leading sector in channeling and transferring the financial resources between surplus and deficit unit in both Malaysia and Indonesia. The important implication of the findings

is that in order to promote economic growth in the long-run, the government is required to further enhance the Islamic banking sector and other financial intermediaries. The Malaysian and Indonesian government should continue to promote Islamic banking as it is beneficial to the economic growth. In addition, the results also show that international trade also plays important role to stimulate economic growth in both countries. Both countries should continuously promote the export of manufactured and semi-manufactured products and raising the profile of exporters in foreign markets.

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