

APPENDIX A

A- Table 1: LCR

High-Quality Liquid Asset Categories

Category	Factor (%)
Level 1 assets	
1. Cash	100
2. Central bank reserves to the extent that they can be drawn down under stress.	100
3. Marketable securities from sovereigns, central banks, public sector entities and multilateral development banks traded in broad and deep markets, able to provide liquidity even in stressed market conditions, and qualifying for a 0 % risk-weight under Basel II standardized approach	100
4. Domestic sovereign or central bank debt securities issued in domestic currency even if risk-weight under Basel II standardized approach is higher than 0 %	100
5. Domestic sovereign or central bank debt securities issued in foreign currency even if risk-weight under Basel II standardized approach is higher than 0 % to the extent that currency matches the bank's liquidity needs in the jurisdiction of the issue	100
Level	
Level 2 assets¹	
1. Marketable securities from sovereign, central bank and public-sector entities assets traded in large and deep markets, able to provide liquidity even in stressed market conditions, and qualifying for 20 % risk-weight under Basel II standardized approach	85
2. Corporate bonds rated AA- or higher, traded in large and deep markets, able to provide liquidity even in stressed market conditions, not issued by financial institutions of their affiliated entities	85
3. Covered bonds rated AA- or higher, traded in large and deep markets, able to provide liquidity even in stressed market conditions, not issued by the bank itself or its affiliated entities	85

A.1 Table 2

A.1.table 2: Total Cash Outflow Calculation in LCR Requirements

Cash Outflows	Factor (%)	N	Cash inflows	Factor (%)
Retail deposits			Reverse Repos and securities borrowing maturing within 30 days, with the following collaterals:	
1. Stable deposits from natural persons, transactional accounts or with other relationships that make withdrawal unlikely and covered by the deposit insurance	5	1.	Level 1 assets	0
2. Less stable retail deposits from natural persons, not in transactional accounts or without other relationships or not covered by deposit insurance	10	2.	Level 2 assets	15
3. Term deposit with residual maturity greater than 30 days with a significant withdrawal penalty or no legal right to withdraw	0	3.	All other assets	100
Unsecured wholesale funding				
Stable:				
4. Stable small business customers	5	4.	Credit or liquidity facilities	0
Less			Operational	
5. Less stable small business customers	10	5.	Operational deposits held at other financial institutions	0
6. Legal entities with operational relationships (clearing, custody and cash management)	25	6.	Deposits held at centralized institution of a network of co-operative	0
7. A portion of non-financial corporates, sovereigns, central banks and public-sector entities deposits with operational relationships covered by deposit insurance	25	7.	Other inflows by the counterparty	50
8. Cooperative banks in an institutional network	25	8.	Amount receivable from retail counterparties	50
9. Non-financial corporates, sovereigns, central banks, and public-sector entities	75	9.	Amounts receivable from non-financial wholesale counterparties, from transactions other than those listed in the inflow categories above.	100
10. Other legal entities	100	10	Amounts receivable from financial institutions, from transactions other than those listed in the inflow categories above.	100
		.	Net derivatives receivables	100

11.	Secured funding maturing or callable within 30 days Secured funding transactions backed by Level 1 assets, with any counterparty	0	11	Other contractual inflows	National discretion
12.	Secured funding transactions backed by Level 2 assets, with any counterparty.	15			
13.	Secured funding transactions backed by assets that are not eligible for the stock of highly liquid assets, with domestics' sovereigns, domestic central banks or domestic public entities as a counterparty	25			
14.	All other secured funding transactions	100			
15.	Undrawn commitments contractually irrevocable or conditionally revocable to retail and small business clients (credit and liquidity facilities)	5			
16.	Non-financial corporates, sovereigns, central banks and public-sector entities (credit facilities)	10			
17.	Non-financial corporates, sovereigns, central banks and public-sector entities (liquidity facilities)	100			
18.	Financial (credit and liquidity facility)	100			
19.	Other contingent liabilities (guarantees, letters of credit, revocable credit and liquidity facilities)	National discretion			
20.	Market valuation changes in derivatives transactions	National discretion			
21.	Additional outflows related to derivative collateral calls related to a downgrade of up to 3 notches.	100			
22.	Additional outflows on collateral (other than Level 1 liquid assets) securing derivative transactions.	100			
23.	Outflows related to maturing ABCP, SIVs, SPVs, Conduits, etc.	100			
24.	Net derivatives payable within 30 days	100			
25.	Any other contractual cash flows within 30 days	100			

Source: BCBS (2010)

A.1 Table 3: NSFR

A.1.1 Funding Factors Used for Calculation of NSFR. Source: Fitch Connect Data Item Structure

Available stable funding (ASF)		ASF factors (%)
Equity	Total equity	100

	Pref. shares and hybrid capital accounted for as debt	100
	Pref. shares and hybrid capital accounted for as equity	100
	Non-controlling interest (minorities)a	-100
Liabilities	Total customer deposits	90
	Deposits from banks	0
	Repos and cash collateral	50
	Other deposits and short-term borrowings	0
	Total long-term funding	60
	Reserves for pensions and other	100
	All other liabilities and equity	0

- a. Minus factor to eliminate ASF related to non-controlling interests, which were added as component of total equity.

A.3.2 Required Stable Funding (RSF)

RSF Factors (%)

	Data item	
Loans	Residential mortgage loans	65
	Other mortgage loans	65
	Other consumer/retail loans	85
	Corporate and commercial loans	85
	Other loans	100
Other	Loans and advances to banks	0
	Total securities	40
	Investments in property	100
	Insurance assets	100
	Other earning assets	100
	Cash and due from banks	0
	All other non-earning assets	100
Off-balance sheet:	Guarantees	5
	Acceptances and documentary credits reported off-balance sheet	5
	Committed credit lines	5
	Other contingent liabilities	5

A- Table 4 Bank Selection and Filtering Criteria (LCR and NSFR)

Bank Level Criteria	Filter Criteria
Bank Specialization	Only institutions from Fitchconnect specialization groups Bank Holding, Holding Companies, Commercial Banks, Cooperative Bank, Real Estate & Mortgage Bank, Savings Bank, Specialized Governmental Credit Institution
Country	Only Banks from Malaysia
Size	Total assets (most recent numbers reported) exceeds RM OR the institution is among the top 10 in terms of total assets in Malaysia
Balance sheet structure	On average, at least 30% of assets must be categorized as loans. This is to exclude institutions without material lending business
LCR & NSFR data criteria	
Minimum and maximum	LCR & NSFR must exceed 25% but must not exceed 250% in any period. LCR & NSFR. This is to exclude banks with (1) peculiar balance sheet structures and/or (2) potential data quality problems in the Fitch connect database (essential balance sheet data missing in database)
Contiguity of observations	There must be at least six contiguous annual LCR & NSFR observations for an institution to be included in the sample. This facilitates the study of lead and lag effects from explanatory data series on LCR & NSFR or vice versa
Continuity of balance sheet structure	: LCR & NSFR values for a certain institution must exhibit certain stability and standard deviation of both LCR & NSFR values observed should not exceed 20%; This is to exclude institutions with (1) reporting discontinuities and/or (2) effects from merger and acquisition activities which strongly change the nature of the bank's business

A- Table 5

A. 8. 1 The Study Period of Islamic Banks and Number of Observation

No	Banks	Period of study	Number of Observations
1.	Bank Islam Malaysia Berhad	2000 to 2016	16
2.	Bank Muamalat Malaysia Berhad	2000 to 2016	16
3.	RHB Islamic Bank Berhad	2006 to 2016	16
4.	CIMB Islamic Bank Berhad	2000 to 2016	16
5.	Kuwait Finance House (Malaysia) Berhad	2000 to 2016	16

6.	Hong Leong Islamic Banking Berhad	2000 to 2016	16
7.	Al Rajhi Banking & Investment- Corporation (Malaysia) Berhad	2000 to 2016	16
8.	Affin Islamic Bank Berhad	2000 to 2016	16
9.	EONCAP Islamic Bank Berhad	2000 to 2016	16
10.	AmIslamic Bank Berhad	2000 to 2016	16
11.	Asian Finance Bank Berhad	2000 to 2016	16
12.	Alliance Islamic Bank Berhad	2000 to 2016	16
13.	Maybank Islamic Berhad	2000 to 2016	16
14.	Public Islamic Bank Berhad	2000 to 2016	16
15.	HSBC Amanah Malaysia Berhad	2000 to 2016	16
16.	Standard Chartered Saadiq Berhad	2000 to 2016	16
17.	OCBC Al-Amin Bank Berhad	2000 to 2016	16

Total Number of Observations

272

A- Table 6.

A. 8. 2 The Study Period of Conventional Banks and Number of Observations

No	Banks	Period of Study	Number of Observation
1	Affin Bank	2000 - 2016	16
2	Alliance Bank	2000 - 2016	16
3	RHB Bank Berhad	2000 - 2016	16
4	CIMB Bank Berhad	2000 - 2016	16
5	Bank of China (Malaysia) Berhad	2000 - 2016	16
6	Hong Leong Banking Berhad	2000 - 2016	16
7	Industrial and Commercial Bank of China (Malaysia) Berhad	2000 - 2016	16
8	AmBank (M) Berhad	2000 - 2016	16
9	Bank of Nova Scotia Berhad	2000 - 2016	16
10	Bangkok Bank Berhad	2000 - 2016	16
11	Bank of Nova Scotia Berhad	2000 - 2016	16
12	JP Morgan Chase Bank Berhad	2000 - 2016	16
13	Maybank Berhad	2000 - 2016	16
14	Public Bank Berhad	2000 - 2016	16
15	HSBC Bank Malaysia Berhad	2000 - 2016	16
16	Standard Chartered Berhad	2000 - 2016	16
17	OCBC Bank Berhad	2000 - 2016	16
18	India International Bank (Malaysia) Bhd	2000 - 2016	16
19	Citibank Berhad	2000 - 2016	16
20	Deutsche Bank (Malaysia) Bhd	2000 - 2016	16
21	Mizuho Bank (Malaysia) Berhad	2000 - 2016	16
22	Royal Bank of Scotland Berhad	2000 - 2016	16
23	United Overseas Bank (Malaysia) Bhd	2000 - 2016	16
24	Sumitomo Mitsui Banking Corporation Malaysia Bhd.	2000 - 2016	16
25	Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	2000 - 2016	16
Total Number of Observation			400

APPENDIX B

(Durbin- Watson Test for Autocorrelation)

Table 1: Pooled Study

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.299 ^a	.089	.059	26.9703915	2

Table 2: Islamic banks

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.813 ^a	.660	.617	.8403825	2

Table 3: Conventional banks.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.497 ^a	.247	.210	.72548	2

Table 4: Islamic Banks Pre Crisis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.905 ^a	.820	.684	1.1572015	2

Table 5: Islamic Banks Post Crisis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.800 ^a	.640	.578	.6091505	2

Table 6: Conventional Banks Pre Crisis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.574 ^a	.329	.260	.64666	2

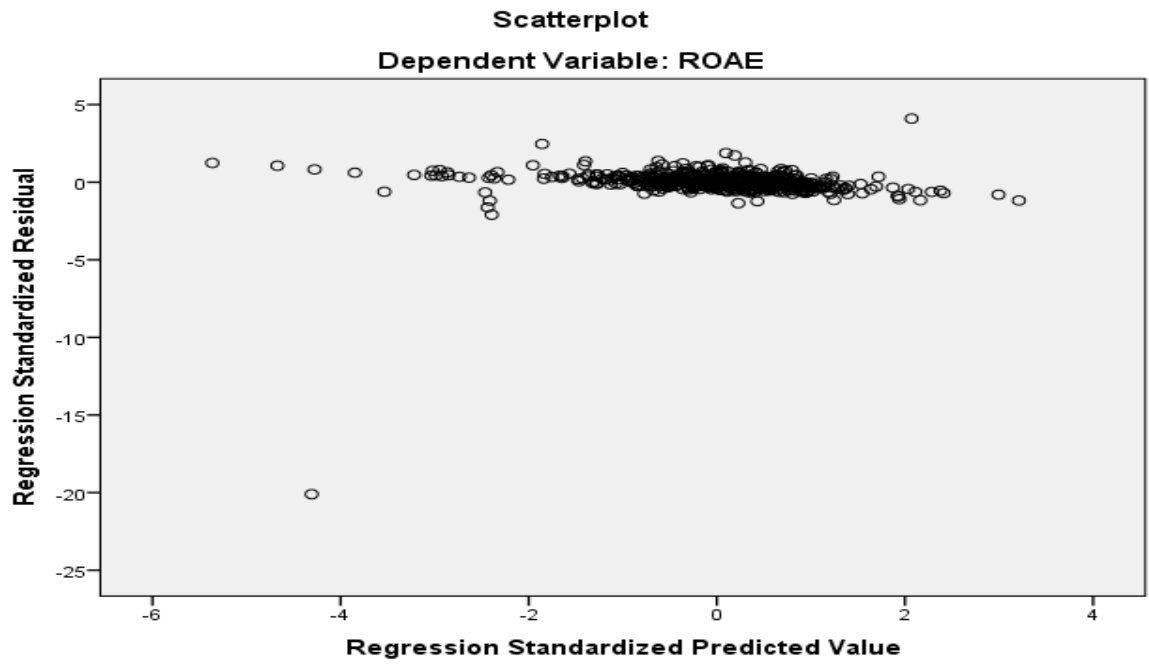
Table 7. Conventional Banks Post Crisis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.412 ^a	.170	.090	.78555	2

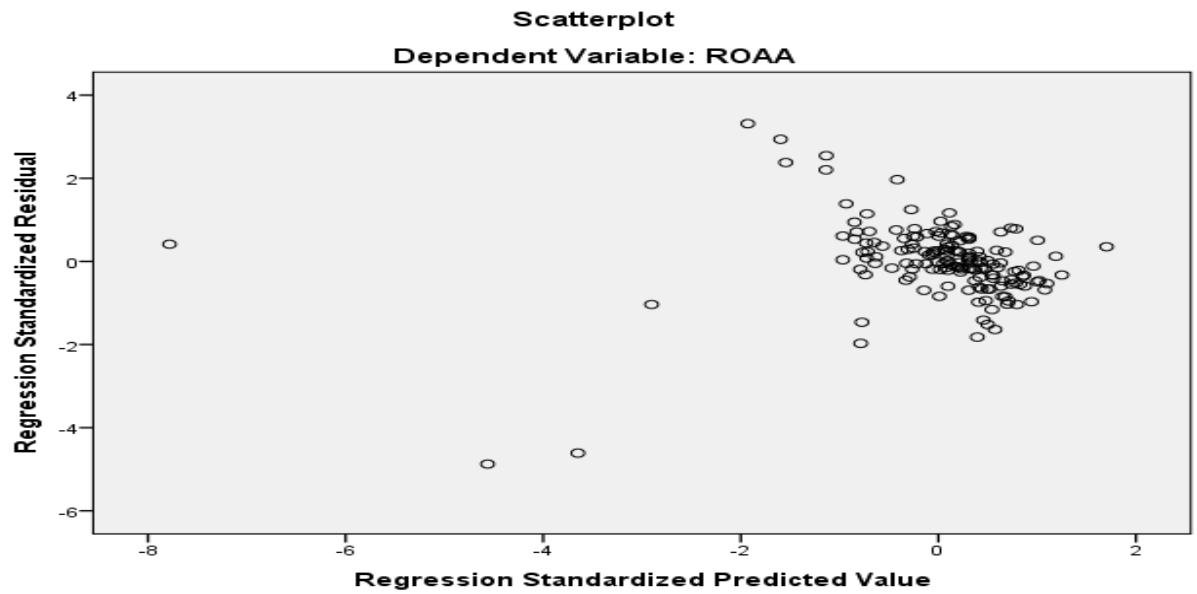
APPENDIX C

Heteroskedasticity Tests

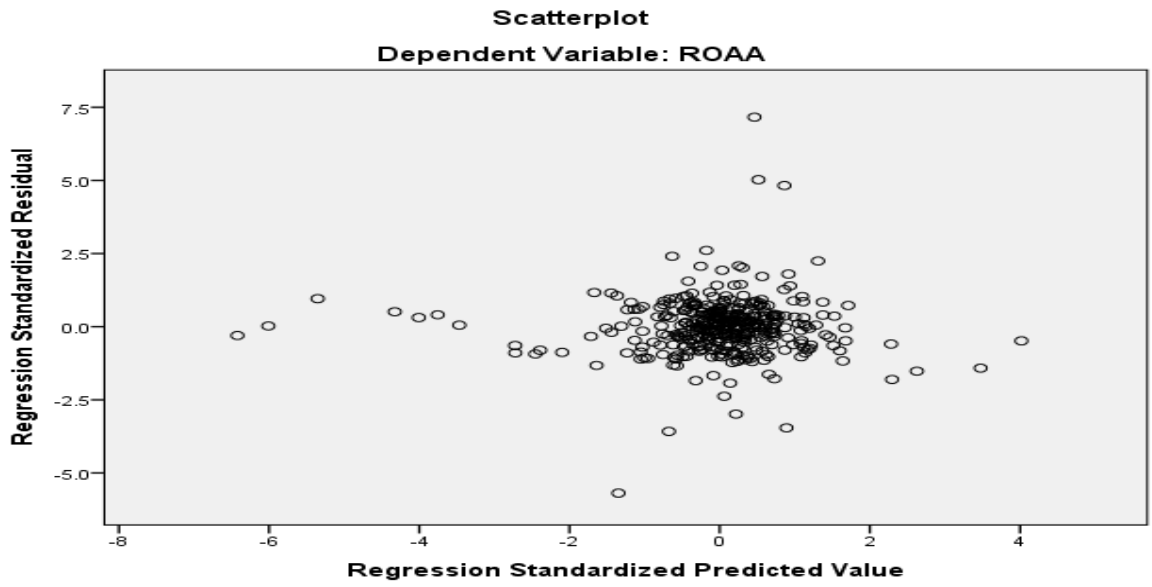
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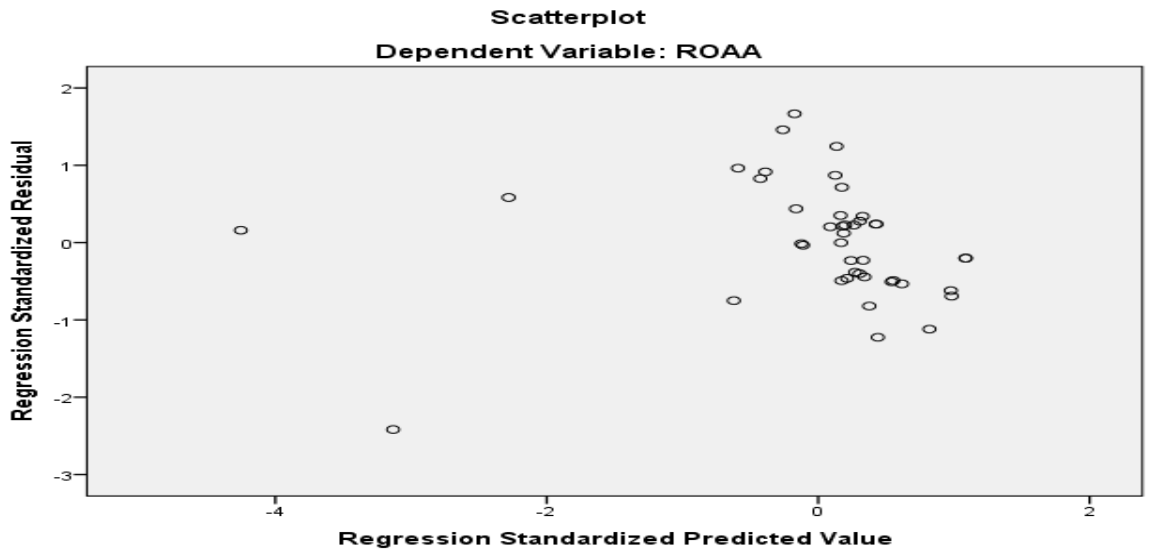
2. Islamic Banks



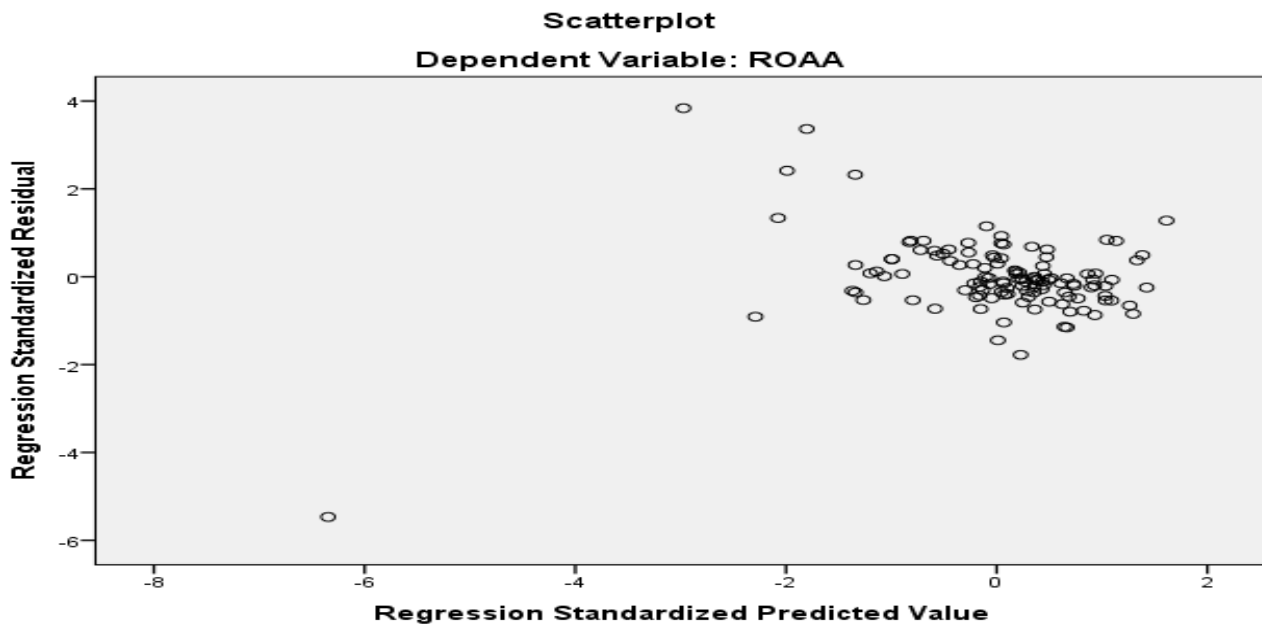
3. Conventional Banks



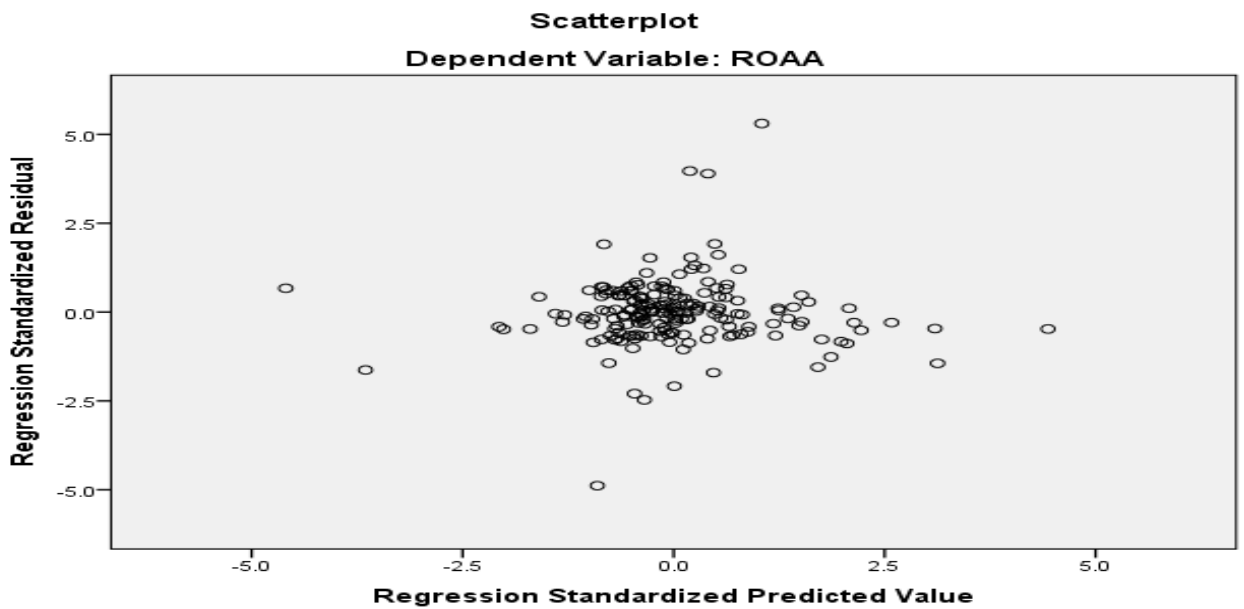
4. Islamic Banks Pre Crisis



5. Islamic banks Post Crisis

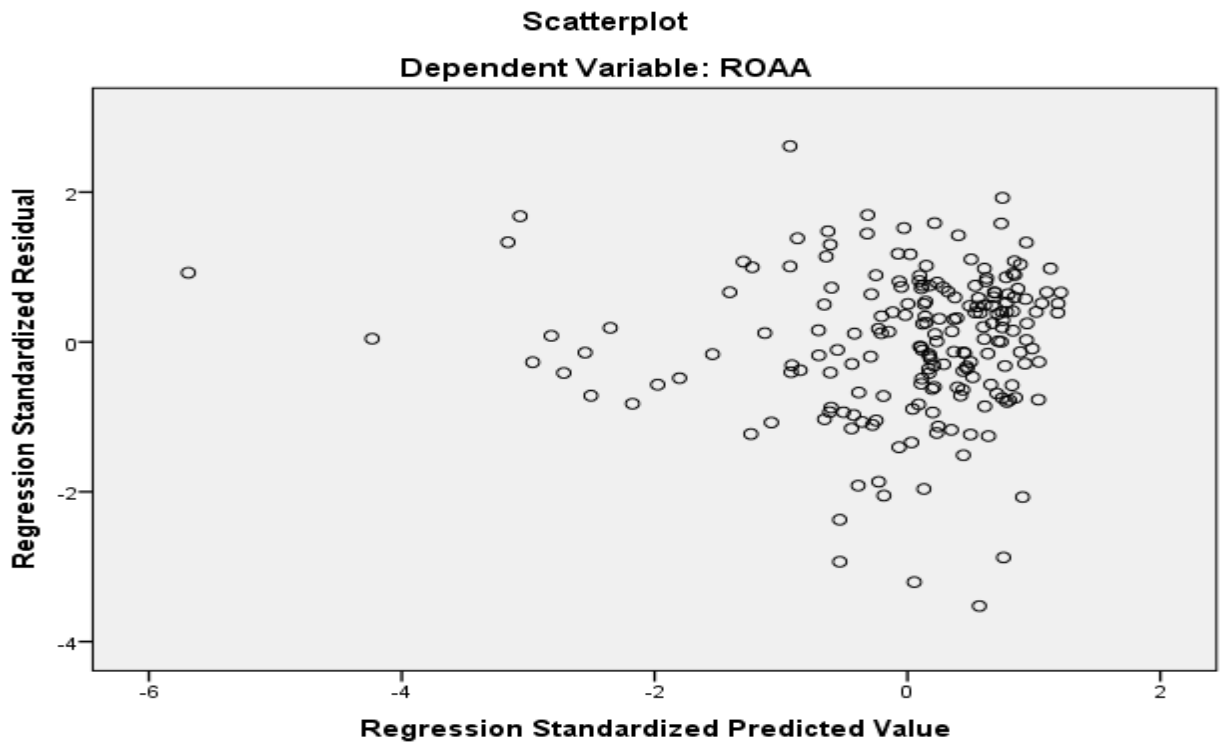


6. Conventional banks pre crisis



7. Conventional Banks Post Crisis

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Appendix C

Robustness Tests Results

Table 1: Pooled Study Sample

Variables	Standard Error	T Statistics	P Values
Bank Specific -> Liquidity -> Profitability	0.04	0.618	0.537
Macroeconomic -> Liquidity -> Profitability	-0.004	0.568	0.57
Bank Specific -> Liquidity -> Z Score	-0.136	2.008	0.045
Macroeconomic -> Liquidity -> Z Score	0.012	1.19	0.234

Table 2: Islamic Banks Study Sample

Variables	Standard Error	T Statistics	P Values
Bank Specific -> Liquidity -> Profitability	0.003	0.02	0.984
Macroeconomic -> Liquidity -> Profitability	0.019	0.535	0.593
Bank Specific -> Liquidity -> Z score	0.015	0.146	0.884
Macroeconomic -> Liquidity -> Z score	0.103	1.815	0.07

Table 3: Conventional Banks Sample

Variables	Standard Error	T Statistics	P Values
Bank Specific -> Liquidity -> Profitability	0.046	0.652	0.514
Macroeconomic -> Liquidity -> Profitability	-0.006	0.623	0.533
Bank Specific -> Liquidity -> Z score	0.008	0.276	0.783
Macroeconomic -> Liquidity -> Z score	-0.001	0.263	0.792

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