

Assets and Liabilities Management in Islamic Banking

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Abstract

In this paper, we are going to consider assets and liabilities management (ALM) structure and instrument in Islamic banking. Since in Islamic banking depositors take partnership in benefits of bank so Islamic banking follows to maximizing benefits of beneficiaries and among them depositors. Therefore, there are dissimilarities between ALM approaches in Islamic banking and conventional banking. First, this dissimilarity comes from differences on accounting system in Islamic banking in comparison to conventional banking. Secondly, usury illegality and its related jurisprudence specifications indicate that time is not the solely the effective factor on increasing equity (deposited capital) return; but profit and loss sharing resulted from investment in real economy sector is the essential base in monetary transactions. These two important factors are considerable factors in Islamic ALM. In this paper we consider influence specifications of these factors in two banking approaches for creating economic value added (EVA). Comparison of financial indices for the two type of banking leads us that Islamic banking is more efficient than conventional banking.

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Introduction

Assets and Liabilities Management (ALM) consists of technical instruments and methods, which consider both value creation and controlling of risks for shareholders. Since one of the main duties of banks' financial management is ALM. Therefore, banks apply ALM techniques to increase more benefits by covering themselves from risks, and minimize losses coming from transactions. The appropriate assessment of bank's ALM requires deep understanding of assets and liabilities, customers, economics environment and competition conditions of the bank. Thus prior to going through into Islamic banking respects of assets and liabilities, it is necessary to introduce Islamic banking assets and liabilities structures, market, customers and other effective factors on ALM.

Compatibility and incompatibility of economic theories with Islamic banking

One of the main purposes of Islamic economics is real value added creation and social welfare maximization in the economy. On the other side, welfare economics, new business administration concepts and also new international banking theories follow the value creation and maximizing of shareholders' benefits. Probably, one of the usury illegality reasons in Islamic banking may come from affection of money market fluctuation on real economic sector that causes economic divergence from long run stability growth and imbalances in money market and other markets as well. Therefore, the compatibility between conventional economics and Islamic economics theories can be observed, though this compatibility cannot be observed in all theories. The main contradictory between Islamic economics and conventional banking comes from usury illegality principle; and usurious and non-usurious considerations on transactions are influenced by intellectual deduction of jurists and Islamic economists and existence of contradictories among opinions in this realm is inevitable. Bidabad and Harsini (2003)¹ by scrutinizing usury definition and using theosophy principal of jurisprudence defined some criteria to distinguish usurious from non-usurious transactions. It seems that these criteria may be accepted as ending point of usury definition. The criteria are:

¹ Bidabad, B. Harsini, A. (2003), Religious-economic analysis of usury in consumption and investment loans and shortages of contemporary jurisprudence in finding the rules of religion legislator. Monetary and Banking Research Academy, Central Bank of Iran, 2003. http://www.geocities.com/bijan_bidabad/reba7.htm

1. Lender must share in profit/loss of the economic activity of loanee.
2. The rate of interest must not be determined and conditioned before.
3. Interest in consumption loans is usury.
4. Foreign currency exchange (without interest) is not usury.

Based on the above criteria, non-usuric banking performance requires specific ALM approaches to make necessary coordination that applying those ALM techniques improve the efficiency and effectiveness of this type of banking. Islamic banking as same as conventional banking follows maximizing shareholders assets, but digressing that the real stakeholders of Islamic banks embrace all beneficiaries as depositors, investors and business partners. The shareholder's assets is measured by market value of shares, amount of payable profit and also created value added. The share's market value or created value added are affected by three factors: cash flows resulted from financial ability of shareholders, cash flows' time scheduling, and risks of cash flows. The maximizing shareholder's equity in Islamic banking is considered by maximizing of value creation as well but must consider the principles of usury prohibition mentioned above. In this paper Economic Value Added (EVA) index will be considered as value creation criterion.

Assets and Liabilities structures in Islamic banking

The cognition of assets and liabilities structure in Islamic banking requires assets and liabilities items to be considered on the basis of Islamic Sharia.

Table 1: General structure of assets and liabilities in Islamic banking

<p><u>ASSETS</u></p> <p>Cash and short-term funds Deposits and placements with banks and other financial institutions Short term investment (i.e. Sukouk) Allowance for bad and doubtful financing Financing and advances based on Islamic contracts Direct investment Other assets</p> <p><u>Fixed Assets</u> Property, plant and equipment Other tangible assets Intangible assets (i.e. goodwill)</p> <p><u>TOTAL ASSETS</u></p> <p><u>Off Assets</u></p> <p>Customer commitment and contingencies</p> <p><u>LIABILITIES AND SHAREHOLDER'S EQUITY</u></p> <p>Deposits from customers Deposits and placements of banks and other financial institutions Bills and acceptances payable Other liabilities Provision for taxation and zakat Ordinary share capital Reserves Shareholder's equity</p> <p><u>TOTAL LIABILITIES AND SHAREHOLDER'S EQUITY</u></p> <p>Bank commitment and contingencies</p>

Assets and Liabilities in Islamic Banking

The source and origin of assets in Islamic banking same as conventional banking come from net benefit and liabilities. On the other words, essential pillar of profit acquiring in Islamic banking is assets from internal sources of shareholder's equities and from external source as liabilities. Productive assets in Islamic banking which are classified as uses are affected by monetary resources and shareholders equity or deposits of depositors which are categorized in Islamic contracts according their liquidity degrees.

Cash

Similar to conventional banking, in Islamic banking this type of assets is maintained for covering bank commitments. Low or lack of return of this type of assets and also its undesired effects of inadequate liquidity are very important for maintaining this type of assets. In other words, increasing losses of liquidity risk, stimulated the Assets and Liabilities Committee (ALCo) to propose some guidelines to preserve the tradeoff between costs of maintaining liquidity and liquidity risk. Generally, optimum liquidity amounts to be maintained by Islamic bank can be calculated by equation (1).

$$1) LR_t = \frac{AL_t + ELS_t}{ELN_t} \geq \sigma$$

AL_t : Liquid assets

ELS_t : Estimated acquired liquidity based on liability sources

ELN : Estimated liquidity needs

The above equation shows optimum liquidity ratio and it should be greater than σ in absolute value. In Islamic banking, the required cash flow (ELN) variation is lesser than conventional banking. Because, the rate of return in Islamic banking comes from rate of productivity in real economy sector in correspondence to profit and loss sharing (PLS) mechanism and this will stabilize interest rate and loaning and depositing flows. According to figures (1) and (2), the rate of return and loans and deposits flows in Islamic banking are more stable than conventional banking. Figure (3) indicates liquidity risk curve shifts down (increases slope) in Islamic banking, thus, optimum liquidity in Islamic banking will be lesser than conventional banking.

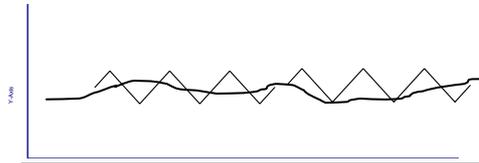


Figure 1: Conventional banking

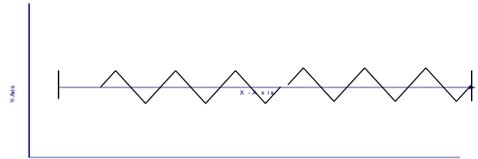
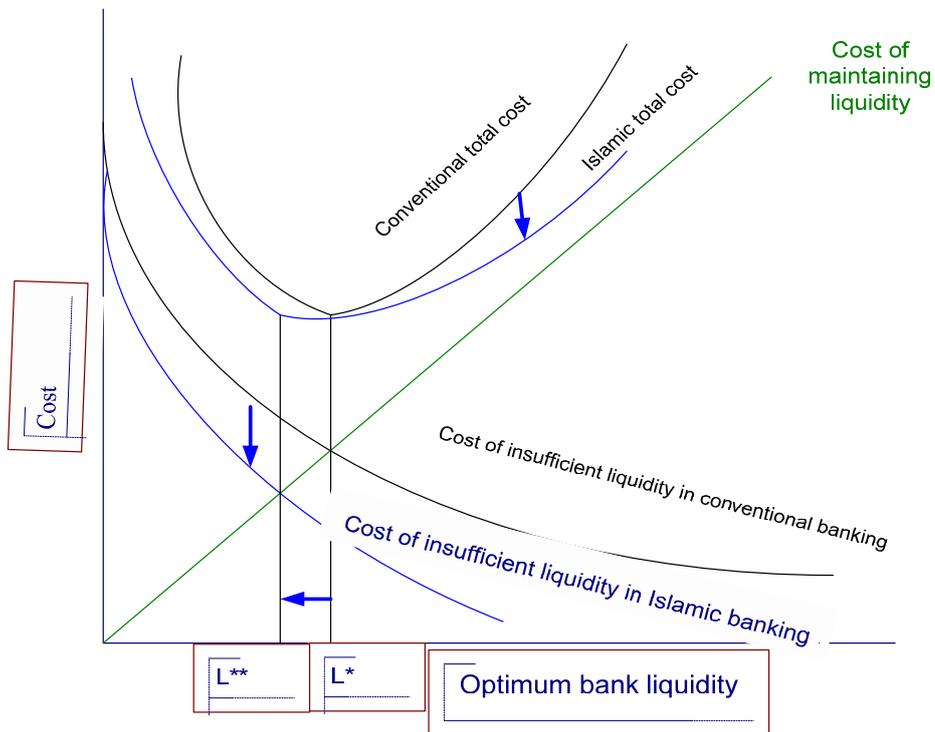


Figure 2: Islamic banking

Following figure (3), the optimum amount of liquidity can be calculated as the point of intersection of the cost of maintaining liquidity curve and the cost of insufficient liquidity curve in both types of banking. In other word optimum liquidity measure is reached where liquidity costs are minimized as shown in following figure.

Trading off the cost of maintaining liquidity against the cost of insufficient liquidity



Lower liquidity needs in Islamic banking will cause the liquid assets to be allocated for investment in high-return assets. Therefore, since the liquidity in Islamic banking is lesser than conventional banking, the opportunity cost for maintaining liquidity in Islamic banking is lesser than conventional banking as well. The liquidity needs in Islamic banking and conventional banking are shown with b_{PLS} and b_{Con} parameters and we can realize this relation: $b_{Con} > b_{PLS}$.

High liquid Assets:

Islamic banking may buy some return based assets instead of their cash hoardings. Despite of being highly liquid, these assets have positive returns and bank can get profits of joint venture in investment projects. Sukuk¹ and Mousharekah bonds (Oragh-e-moshrehkah) are samples of this type of assets in Islamic banking which are replacements for bonds in conventional banking. Decision for maintaining this type of assets will be based on liquidity, inflation, rate of return of real economy sector, and also economic conditions and regulations and etc

Accounts and Notes receivable

The origin of this kind of assets comes from Islamic bank credit facilities as form of debt buying (Kharid-e-Dayn) contraction. Purchasing of this type of assets will depend on customer credit position, rate of return and economic conditions.

Claims

The banking claims include those purchased assets that go into the credit risky. Total outstanding claims, allowance for bad and doubtful financing of government and non-government claims, debts of paid L/C on the base of Islamic contracts, irrecoverable receivable notes and others are classified in this group. The qualities of this type of assets regarding their returns in banks whether Islamic or non-

¹ sukuk is a one of financing instruments which is based on Al-Ijareh contraction. Sukuk or Al-Ijareh negotiable paper can be issued on the bases of Al-Ijareh contractions basis and Al-Ijareh Muntahia Bittamlik. In the first type, Sukuks are issued and offered to borrow capital. The borrowed capital based on Sukuk is spend for buying capital intensive and durable goods on behalf of capital owners and the Sukuk's issuer by a leasing contracts rent the goods to customers who need these types of goods. At the end of duration of Ijareh, goods will be sold as scrap. The rent will repaid to Sukuk owners at the specified dates after deduction of costs. In the second type of Sukuk (Al-Ijareh Muntahia Bittamlik) at the end date of Ijareh contraction, the goods (Ain) by the way of gift (hibah), or at nominal price will be transferred to the lessee (Mostajer).

For more information see: Proceeding of the international new financial instrument on Islamic banking system conference, (2007), Export Development Bank of Iran, Tehran.

Islamic are different and depend on the type of collaterals, mortgage or non-mortgage and cash or non-cash. So for calculating the allowances for bad debts and determining credit risk measure are considered by ALCO. The standard measure for allowances for bad debts (sum of public and specific reserves) to net loans should be at an acceptable level (the standard measure is 2% of net financing and advances). One of the advantages of Islamic banking in comparison to conventional banking is the transparencies of the balance sheet items. Because, profit and loss sharing (PLS) will decline allowances for bad and doubtful financing. In case of bankruptcy and investment loss, amounts of investment is directly booked in costs accounts and therefore, the financial statement is more transparent in Islamic banking than conventional banking.

Financing and advances based on Islamic contracts

The main activity of financial intermediary institutions is credit loaning or financing and advances. On the other words, financial intermediary institutions as economic firms are active in two markets. They demand financial resources from depositors (in deposit market) and on the other side, they supply credits to investors (in credit market)². Revenue of these institutions comes from differences between received and paid interest or interest premium. Prohibition of usury (riba) in Islam and other divine religions and also work and do as bases of value creation are main characteristics of Islamic banking products and services, so this type of banking tend toward Musharakah contracts with pre-undetermined profit/return rate. Generally selling assets as forms of credit products can be separable according to the following table³. Although many of these products will enter into usuric domain⁴, but are used by Islamic banking like Iran's. In many Islamic countries which applying Islamic banking, PLS contraction has not developed deeply for example the PLS paradigm of Islamic banking in Malaysia has been much slower on the asset side than on the liability side. On the asset side, only 0.5% of Islamic bank financing is based on the PLS paradigm of mudarabah (profit-sharing) and musharakah (joint venture) financing.⁵

² See: Bidabad, Bijan, Mahmoud Allahyarifard, (2005), "IT role in fulfillment of profit and loss sharing" Proceeding of The 3rd International Islamic Banking and Financing conference, Monash University, Kuala Lumpur, Malaysia. <http://www.geocities.com/bidabad8/english-pls-5.pdf>

³ See: Hedayati, Aliaskhar, and co-authors, (2002), "Internal banking operation (2)", Iran Bank Institute, Central Bank of Iran, 5th publish, p 9 (in Farsi).

⁴ Bidabad, B. Harsini, A. (2003), Religious-economic analysis of usury in consumption and investment loans and shortages of contemporary jurisprudence in finding the rules of religion legislator. Monetary and Banking Research Academy, Central Bank of Iran, 2003, (in Farsi). http://www.geocities.com/bijan_bidabad/reba7.htm

⁵ See: Beng Soon Chong, Ming-Hua Liu, 2007, "Islamic Banking: Interest-Free or Interest-Based? ", www.efmaefm.org/0EFMAMEETINGS/EFMA%20ANNUAL%20MEETINGS/2007-Vienna/Papers/0019.pdf

Table 1: credit products in Islamic banking

Gharzolhasaneh		Musharakah contractions		Mobadeleh (Exchangeable) contractions	
Type of products	Type of return	Type of products	Type of return	Type of products	Type of return
Marriage, trousseau, preparation, house repairs, educational allowance, subsidy for rural constructions, and other productive sectors	Flat rate	Mudarabah (public, specific), civil Musharakah, legal Musharakah, Direct investment, Mozareh, Mosaghat	Floating rate	Froush-Aghsati (BBA ⁶), Ijareh-be sharte- tamlik ⁷ , Salaf (forward), Kharid-Dayn (debt buying), Jealeh, Istisna	Flat rate

In Iran, Islamic banking products can be separated into three major sectors of Gharzolhasaneh, Moshrekah (joint) and Mobadeleh (exchangeable) contractions. The banks are not authorized to receive profits from credit facilities based on Gharzolhasaneh and just can get commission based on the services they supply to their customers. The volume of this type of assets should be equal to the Gharzolhasaneh resources. The return of Musharakah contracts should be determined on the base of activity in real economy sector and to be determined according to profit and loss sharing (PLS) in investment. The return of Mobadeleh contracts will be determined on the base of resale of assets to customers. There is no unanimity on these types of contracts regarding usuric doubts⁸. And the preferred contracts are those which are based on Mosharakah that Islamic jurisprudence unanimity exists among the jurists, though present supervision and accounting systems cannot monitor and cover the non-usuric banking systems needs.⁹ Establishing of second market for certificate of deposit transactions in this

⁶ Bai- bithamin-ajil (BBA)

⁷ Al-Ijareh Muntahia Bittamlik

⁸ It is needed to notify that some economists believe that necessarily it is not needed to separate contractions as Gharzolhasaneh, Mosharekah, and mobadeleh; and some economists believe that Jealeh and Istesna can be classified into Mosharekah contracts.

⁹ See: Bidabad, Bijan and mahmoud Allahyarifard, 2006 : Implementing IT to fulfill the profit and loss sharing mechanism, Islamic Finance News (IFN) Journals, 3 edition: <http://www.geocities.com/bidabad8/summary-pls-it-1.html>. This paper present a new method of Islamic banking. This method will be operational by use of profit and loss

type of investment, applying insurance of deposit instrument and transferring operational risk to depositors and also getting commission by bank are of noticeable processes.

Direct Investment

Another item of assets is the investment of Islamic bank in huge infrastructures developments projects.¹⁰

Monetary resources for investment on the base of debt (deposits)

The main debt items in non-usuric banks balance sheet are various deposits which customer of individuals or legal entities, private or public sectors have deposited at the bank. Generally, Islamic bank's deposits can be categorized into Gharzolhasanah and investment deposits. Gharzolhasanah deposits are cheap resources and include jari (current account), Pasandaz (saving account) which all of them are free of financial cost (payable interest). Another type of banking resources is investment deposits which Islamic bank can use them on the base of profit and loss sharing (PLS), and bank as intermediate agent apply them in different investment projects and the investment return will be paid to depositors according to their proportions and durations. As a rule, all Gharzolhasanah deposits should be allocated to Gharzolhasanah loans.

Capital

Capital is the most important index for indicating how well the stability of a bank is. One of the international standards on Basel committee on banking supervision is capital adequacy ratio (CAR). Capital adequacy ratio index comes from sum of tier 1 or core capital and tier 2 or supplementary capital to risk-adjusted assets ratio (on basis of Basel1 is adjusted by credit risk and on basis of Basel2 is adjusted by credit, operational and market risk). This ratio for banks which they are members of Basel committee on banking supervision should be $\delta = 8\%$ as minimum measure (see equation 2).

$$2) CA = \frac{C1 + C2}{RWA} \geq \delta$$

Structural differences between Islamic banking and conventional banking activities in economic activities viewpoint caused different theories regarding the way of calculating capital adequacy ratio in the Islamic banking as follows:

sharing (PLS) mechanism and by creating connection between deposits and investments projects. This project at the primary steps can be setup as pilot examination for short run construction and commercial investments as form of Mosharekah and mozarebah contractions.

¹⁰ In case that these investments be governmental and its rate of return be less than rate of return of real economy sector, then the government should pay subsidy to the bank.

- On profit and loss sharing (PLS) basis and lack of collaterals in this kind of transactions the Islamic banking face with higher credit risk coefficients in comparison with conventional banks.
- In the PLS mechanism depositors participate both in profit and loss which comes from yield of investment, therefore calculating the risk coefficients of Islamic banks should be on the basis of proportions of depositors and bank. In other word for calculating capital adequacy ratio the weighted average of customer proportion of risk should be exited from denominator of the fraction. Therefore the required capital adequacy ratio in Islamic banking is lesser than conventional banking.
- The other assets items in balance sheet and off-balance-sheet items in Islamic banking like conventional banking posses different coefficient for operational, credit and market risks.

Economic value added (EVA) maximization in Islamic banking

In the non-usuric banking the monetary resources for investment come from two sources of debt capital and equity capital. The Islamic bank after deduction of legal reserves and provident funds by using the resources on the basis of Musharakah contracts (with floating profit) can invest them undividedly and distribute their returns on basis of accrual accounting system among the stakeholders. The object of Islamic banking is to maximize the benefits of stakeholders which include depositors and beneficiaries (legal owners).

In this section by introducing economic value added (EVA) index as value creation criterion, we will compare Islamic banking and conventional banking. Calculation of EVA is done by different methods of theoretical economics by reduction of opportunity cost of capital from net profit of the firm (after deduction of the taxes). Therefore in order to maximize the EVA it is necessary to consider EVA in Islamic banking and conventional banking as:

$$3) \quad EVA = \pi - \bar{r} K$$

\bar{r} : weighted average cost of capital which is introduced as exogenous and follows the rate of return of real economy sector; and r_{PLS} is rate of return in the real economy sector. Hence equation (3) is EVA, which π is profit and K is capital of Islamic bank. Rate of return in PLS mechanism is right the same rate of productivity but rate of return or interest rate in the conventional banking is equal to market interest rate plus rate of risk. Therefore, rates of returns in the two systems can be compared by using following relation:

$$4) \quad r_{PLS} = r_m + E(div)$$

According to equation 4, the rate of return on PLS basis is equal to sum of

market interest rate and mathematical expectation of a deviation term. This random deviation term contains credit risk as negative factor and unexpected return as positive factor. Equality between real economy return rate and market interest rate will depend to this term. Therefore, three logical relationships could be written down as follows:

I) If $E(\text{div})=0 \rightarrow r_{PLS} = r_{Con}$

If mathematical expectation of deviation term is equal to zero then both rates will converge to a unique rate.

II) If $E(\text{div})>0 \rightarrow r_{PLS} < r_{Con}$

If expected value of deviation increases then rate of return in PLS will be less than conventional banking rate of return.

III) If $E(\text{div})<0 \rightarrow r_{PLS} > r_{Con}$

If expected value of deviation decreases then rate of return in PLS will be more than conventional banking.

The profit comes from differences between revenue and costs as equation (5):

$$5) \pi = TR - TC$$

The bank undivided revenue comes from disposable financial resources and commissions and the revenue of non-credit products and services and is calculated by equation (6).

FD: disposable resources,

r : rate of return of investment in real economy sector.

$$6) TR = FD r_{PLS} + BF$$

The bank's disposable resources is calculated by equation (7).

a : legal reserve ratio (received by central bank for implementing monetary policies)

b : rate of providential reserve or primary reserve for payment of short term bank commitments.

$$7) FD = D(1 - a - b_{PLS})$$

The bank cost is indicated by equation (8) and contains operational costs (OC) and non-operational costs (NOC). NOC includes personnel, administration and office and depreciation and amortization costs. OC includes expenses related to credit risk (allowances for bad and doubtful financing) and operational risk introduced as proportion (θ) of disposable resources for supplying of credit facilities as shown by equation (9).

$$8) TC = OC + NOC$$

Generally in the Islamic banking on basis of Musharakah contracts outstanding and expired due dated claims do not exist. Therefore θ coefficient in Islamic banking is lesser than this parameter in conventional banking. Based upon above discussion this inequality holds: $\theta_{PLS} < \theta_{Con}$.

$$9) OC_{PLS} = \theta_{PLS} (1 - a - b_{PLS}) D$$

Substitution of the above equations in EVA function of PLS will become:

$$10) EVA_{PLS} = [D_t (1 - a - b_{PLS}) r_{PLS} + BF_t - \theta_{PLS} (1 - a - b_{PLS}) D_t - NOC_t - r K_t]$$

Operational costs of conventional banking is indicated by equation (11):

$$11) OC_{Con} = [\theta_{Con} (1 - a - b_{Con}) + i] D$$

i : Weighted average of payable interest rate to depositors,

r : Weighted average receivable interest rate from loanee.

EVA function in this case will be as depicted by equation (12)

12)

$$EVA_{Con} = [D_t (1 - a - b_{Con}) r_{Con} + BF_t - i D_t - \theta_{Con} (1 - a - b_{Con}) D_t - NOC_t - r K_t]$$

The equations (10) and (12) indicate the EVA in the two banking approaches. According to the following reasons we can deduce that EVA in Islamic banking is more than the conventional banking.

- Since provided (b_{PLS}) reserve in PLS banking is lesser than conventional banking (b_{Con}) so financial efficiency in PLS banking is more than conventional banking. The main reason of more efficiency is due to stability in cash flows of PLS banking; so for covering liquidity risk less provided funds are required in comparison with conventional banking.
- Lack of outstanding claims and doubtful claims in PLS banking because of nature of Musharakah contracts and supervision on investments decline θ_{PLS} coefficient in Islamic banking in comparison to conventional banking (θ_{Con}). Hence lack of this kind of inefficient assets will improve financial circulations in PLS banking than conventional banking and this will grow up the EVA in this kind of banking system.
- Rate of return in PLS banking is more than the conventional banking ($r_{PLS} > r_{Con}$), so consequently EVA in PLS banking is higher than conventional banking.

Considering these three factors and parameters in the mathematical models and also logical and mathematical reasoning and analyzing them, we will conclude that the EVA in PLS banking will be more than the conventional banking. For testing this hypothesis based on some case studies, we will have a look at the financial statements of Islamic RHB Bank and conventional bank from the same RHB bank comparatively.

Comparison of financial indices in Islamic banking and conventional banking

Table 2 indicates quick ratio in two systems of PLS banking and conventional banking for the two approaches of RHB bank. The quick ratio indicated by *b* is lesser in PLS banking than the conventional banking, because of stability of cash flows in PLS banking. Therefore declining of *b* coefficient is a main factor of increasing EVA in Islamic banking in comparison with conventional banking.

Table2: Comparison of liquid assets proportions in PLS and conventional banking

Indices	RHB Islamic banking		RHB Investment banking	
	31.03.2007 RM,000	31.12.2006 RM,000	31.03.2007 RM,000	31.12.2006 RM,000
Cash balances with banks and other financial institutions	35035	21283	35177	34147
Total assets	8239971	8092265	72675509	6834756
$QR = \frac{LiquidAssets}{Assets}$ ¹¹	43%	26%	48%	50%

Source: RHB Islamic Bank and RHB Investment Bank financial statements¹²

Table 3 will analyze another section of PLS banking characteristics. Decline of outstanding claims and allowance for bad and doubtful financing claims and more transparency of financial statements are other characteristics of PLS banking in comparison with conventional banking. According to table 3, allowances for bad and doubtful financing ratio to gross financing and advances (in PLS banking) and the same ratio to loans and advances (in the conventional banking) indicates this consequence. In PLS banking, because of characteristics of Mosharakah and

¹¹ Quick Ratio

¹² http://www.rhb.com.my/about_rhb/financial/pdf/AC_31_Mar_07_final.pdf;
http://rhbislamicbank.com.my/pdf/RHBIB%20Annual%20Report%202006_FinSec.pdf

Modarabah contracts this ratio is lesser than conventional banking. This factor plays important role to increase of EVA in comparison with conventional banking.

Table3: Comparison of allowances for bad and doubtful financing in PLS banking and conventional banking (θ coefficient).

Indices	RHB Islamic banking				RHB Investment banking			
	31.03.2007 RM,000		31.12.2006 RM,000		31.03.2007 RM,000		31.12.2006 RM,000	
	Amount	%	Amount	%	Amount	%	Amount	%
Public	78479	1.78	77059	1.8	13128	1.59	10432	1.38
Specific	49374	1.12	48822	1.14	63724	7.74	96458	12.72
Total	127853	2.89	125881	2.95	76852	9.34	106890	14.1
Gross financing and advances or loans and advances, RM,000	4416945		4273454		823234		758173	

Source: RHB Islamic Bank and RHB Investment Bank financial statements¹³

Table 4 indicates some financial indices in PLS banking and conventional banking. These indices are shown in two groups of profitability and capital adequacy indices and will compared two different banking systems. The profitability indices include Return on Assets (ROA) and Return on Equity (ROE). According to this table, PLS banking profitability ratios is more than conventional banking. Higher ratios indicate higher efficiency and means higher EVA in PLS banking in comparison to conventional banking.

Capital adequacy ratio index has been calculated as advised by Basel committee on banking supervision standard in two banking systems. The first index is core capital ratio (inclusive of market risk) which is calculated as Tire 1 capital¹⁴ to risk adjusted assets ratio. The second index is calculated as aggregation of Tire 1 capital and Tire 2 capital¹⁵ to risk adjusted assets ratio.

¹³ The mentioned same reference

¹⁴ Tire 1 capital measures equity holding and is equal to the sum of tangible equity, including common stock, surplus, retained earnings, and perpetual preferred stock. Unlike primary capital under uniform rules, capital reserves are excluded from equity. See Donald R. Fraser and other co-authors, "Commercial banking and management of risk", 2001, South-Western College Publishing, pp. 398-399.

¹⁵ Tier 2 capital is comprised of loan loss reserves, subordinated debt, intermediate preferred stock, and other counted previously as primary capital (e.g., mandatory

Table4: Comparison of financial indices in PLS and conventional banking

Indices	RHB Islamic banking		RHB Investment banking	
	31.03.2007 %	31.12.2006 %	31.03.2007 %	31.12.2006 %
ROA	.27	1.07	.159	.96
ROE	3.28	13.25	1.64	9.24
Core capital ratio (including of market risk)	17.36	17.78	18.5	20.29
Risk-weighted capital ratio (including market risk)	15.44	15.84	14.6	16.02

Source: RHB Islamic Bank and RHB Investment Bank financial statements¹⁶

According to table 4, rate on assets (ROA) and rate on equity (ROE) in Islamic banking at the two considered times are more than conventional banking. Therefore, the mentioned relation $r_{PLS} > r_{Con}$ indicates more return in PLS banking in comparison with conventional banking. As table 4 core capital ratio (including credit and market risk) and risk-weighted capital ratio (including credit and market risk) of conventional banking are more than Islamic banking. Applying Basel committee on banking supervision standards for calculating capital adequacy ratio (CAR) for the two approaches will cause of higher CAR in the conventional banking. Profit and loss sharing, decline of risk coefficient and transferring of a fraction of risk to depositors (in PLS mechanism) will increase CAR in Islamic banking.¹⁷ In other words, decline of low-return-high-risk assets created by outstanding claims and doubtful financing or loans, change in risk coefficient based on Islamic standards, and transferring of a fraction of risk to depositors will increase CAR in Islamic banking in comparison to conventional banking.

convertible debt and cumulative perpetual preferred stock with unpaid dividends) . refer to mentioned reference.

¹⁶ Refer to the mentioned same reference

¹⁷ In this way it will be necessary that international Islamic organization like IFSB or AAOIFI design evaluation and performance standards for Islamic banking for increasing Islamic banking interactions with other banks in the globe.

Summary and Conclusions

Profit and loss sharing (PLS) banking characteristics will increase economic value added (EVA) as a value creation index in comparison with conventional banking. In this paper the factors affecting economic value added regarding the aspects of assets items optimization, decline of credit risk and more transparency and also increasing rate of return were explained by applying different ALM indices. Lesser instability of financial flows and stability of PLS banking will decline liquid provident reserve for covering liquidity risk. On the other hand, releasing these types of assets and buying high return assets will increase EVA in Islamic banks. Profit and loss sharing characteristics and permanent supervision on investment are effective factors for removing or decreasing of outstanding claims, doubtful financing or loans and more transparency of financial statements of PLS banking. Absence of these types of inefficient assets, safe and sound circulation of resources will increase productivity of bank and will increase EVA on PLS banking. High financial stability and soundness in PLS banking will be accessible through higher return and lower risk. Comparison and study of financial statements in the two Islamic and conventional RHB banking approaches made evidences for higher value added creation of PLS banking. Another comparative evaluation of financial soundness of two banking approaches is capital adequacy ratio. This ratio in PLS banking is higher than conventional banking due to redefinition of risk coefficients, decline of outstanding claims, doubtful financing or loans, change of quality of assets items from risk point of view and increases of returns will increase CAR in PLS banking. Undoubtedly, the uniform calculation of Basel standards for all banks (Islamic and conventional) will create some deviations in fiscal comparison of different banks. In this regard international organizations and institutions like AAOIFI, IFSB and also IDB will play important role to introduce these guideposts. Applying the standards provided by international institutions as Basel committee on banking supervision will be useful to increase the coordination of international banking with Islamic principles and usuric considerations.

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