



PROFIT SHARING RATIOS IN MUDARABA CONTRACTS REVISITED*

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Abstract

This paper examines three interlinked issues: First, what is the current state of profit sharing in Islamic banking, that is, is the division of profit between the banks and the depositors satisfactory? Second, can the profit sharing in a two-tier *mudaraba* contract give the same rate of return to depositors as the bank receives from the investment of their deposits in business? Finally, can the central bank use in some ways the profit sharing ratio along with the rate of interest as an instrument for credit control in a dual banking system? The answer to the first two questions is in the negative. To the third, a tentative response is yes. The paper also suggests a policy tool the central banks can presumably use for controlling credit, more so in view of the recurring financial crises like the one emanating from the US that the world is facing today. The tool may in addition help improve the link between the banks and depositors by adopting an iniquitous distribution of profits.

Keywords: Islamic banking, Two-tier *mudaraba*, Profit sharing ratio, Division of profit Credit control.

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1. Introduction

In an earlier article (Hasan, 1985), I had explained the juridical position in *mudaraba* contracts on the profit sharing ratio (PSR) between the borrowing

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firms and the Islamic banks that were assumed operating in competition with their mainstream interest-based counterparts in a dual banking system. That assumption became a reality when Malaysia allowed mainstream banks to open Islamic windows.¹ The paper identified the main determinants of the PSR as (i) the expected rate of profit, r , on investment, (ii) the proportion λ of borrowed funds in total capital firms employed in business, (iii) the market rate of interest r_i and (iv) the risk premium α . The paper dealt with the issue both at the macro and micro levels and showed that in principle, the Islamic system had superiority over interest bearing mainstream banks in matters of returns and stability.

The main elements of that work were incorporated later in a comprehensive discussion on *mudaraba* (Hasan, 2002) which dealt at some length with reasons of its relative unpopularity in modern times and suggested ways to overcome the difficulties. In the present paper we shall desist from going over the material and areas already covered in these writings, more so because they have already become a familiar part of the knowledge on the subject.²

However, some misgivings and several new developments in the area have prompted the current revisit. Siddiqui (2008) presents a critical appraisal of the main theoretical models developed in the area of Islamic banking over the years. His survey especially highlights striking similarities the model of Anwar (1987) has with that of Sargent (1979), and notes that former has merely replaced the rate of interest r with a rate of profit Θ to make the latter look Islamic (P.250-251). Because Anwar assumes Θ as known, $k\Theta$ in his model, according to Shamim, just works as the rate of interest r and that is “why all of the model appears to be similar to the conventional classical or Keynesian model” (p.254).

Another paper that has received a major part of Shamim’s attention is of Mohsin Khan and Abbas Mirakhor (1989) where he provided clarification to support some of the positions the authors had taken. In conclusion, Siddiqui felt that a number of questions related to the Islamic monetary system remain unanswered, but more significant, he thought, is the failure of Islamic banking to use the profit and loss sharing modes of financing on the assets side of the balance sheet, which could alone necessitate any meaningful change in monetary policy and the tools used for its implementation. There seems to be no difficulty in agreeing with him on the point.

¹The policy has of late been modified. Mainstream banks are now encouraged to have exclusive Islamic subsidiaries instead of windows. The subsidiaries fall under the governance of the Islamic Banking Act 1983 while windows are covered by the BAFIA of 1992, conventional banks. However, there is yet no legal bar on opening the windows.

²The 1985 and 2002 articles have often appeared as references in the writings on Islamic finance. Both have been downloaded or their abstracts accessed on the internet at a combined average exceeding three a day over the past 12 months ending August 2008. Web: <<http://logec.repec.org/RA5/pha42htm>>.

Finally, in the process of surveying the literature, two of my writings alluded to above dealing, among other things, with the sharing of profit ratios attracted Siddiqui's attention, more than what I feel they deserved. However, his enlightening comments made me sit up and think afresh on the issue of using the ratios.

The present paper has three basic objectives. (1) To have a look at the sharing ratio theory and the way it is being currently used in Islamic banking. This is an addition to my earlier deliberations on the subject and is taken up in the following sections 2 and 3. (2) To examine if there would not be any difference between the rate of profit a bank may earn on investing customers' deposits in business on the one hand; and the rate of profit it could allow to them on their money on the other. This discussion is in response to a point Siddiqui has raised on my review in defense of Khan and Mirakhor (1989). Section 4 is devoted to reinforce my position. In Section 5, the discussion extends to a more important issue: the adequacy of return banks provide to the depositors on investment. Do the prevalent profit sharing ratios result in a fair distribution of profit between the bankers and the depositors in Islamic finance and if not what can be done to remedy the situation? (3) To review whether the central bank could use the sharing of profit ratio, as is at times suggested, for controlling credit, assuming that Islamic banks can and do create credit. I have discussed this issue in a recent paper (Hasan, 2008) and make on it some more observations here in Section 6. Finally, Section 7 contains a few concluding remarks.

2. Profit Sharing Theory

The initial theoretical models of interest free banking were based on the view that "no risk, no gain" *alone* was the principle in Islam for organizing banking operations. The claim got inspiration presumably from the early days of Islam when *mudaraba* was the dominant mode for financing specific business projects or trading partnerships. That the claim was only partially true has already been demonstrated (Hasan, 2005). There can be areas such as leasing or mark-up pricing where gain can arise without virtually involving any risk in an Islamic contract.

It may be mentioned that the notion of profit sharing pervaded even conventional business organizations, let alone Islamic finance. For example, mainstream economics now sees profit in sharing profit with labour to the extent it helps maintain industrial peace. In partnership contracts also, it allows profit sharing ratios for some of the participants to differ from their loss sharing ratios as in *mudaraba*.³ The partnership contracts define profit sharing ratio as the one in which profits or losses of a business are shared as set out in the agreement. The

³In fact, *mudaraba* was a pre-Islamic mode of profit-sharing finance that flourished as a dominant form of business organization around thirteenth century in the Muslim lands.

ratios are usually expressed as a percentage of the total profits each partner will get. In some agreements there is a first charge on profits, the remainder is then distributed according to the profit sharing ratios the agreement contains.

The profit sharing ratios are in general proportionate to capital contributions of the partners but *that need not always be the case; the agreement may specify a different ratio for any of the partners.*⁴ Thus, there are resemblances between *mudaraba* on the one hand and modern partnership contracts on the other. However, differences between them, especially because of the different treatment of the interest factor are much more significant. For example, in conventional partnerships, the profit and loss sharing ratios of partners are mostly the same as their capital contributions but in *mudaraba* the two are invariably different. Also, the non-intervention of the financier (bank) in the management of business is a *mudaraba* imperative, but in conventional partnerships no partner can automatically be excluded from participation in managing a firm's business unless he agrees to be a sleeping partner.

Mudaraba is a contract in which a financier, say a bank, provides funds to an entrepreneur (firm) for investing in a business venture to share profits in an agreed proportion, the loss falling on capital alone.⁵ This view implies what we may call a pure *mudaraba* model where the financier is assumed to provide the *entire* capital to an empty handed entrepreneur; the model fits well even today to small partnership businesses to undertake specific projects⁶. But the modern economic scene is dominated by large corporations that have long eclipsed small proprietary businesses. Likewise, banks have almost completely replaced personal financing of the earlier era with institutional arrangements (an important point to understand that profit share is different from interest). What realistically fits in the present situations is the model of what we can term as *mixed mudaraba*, where the bank is an outside financier providing fund to running businesses on a profit sharing basis. Corporations operate mostly with their owner shareholders' money supplemented by bank finance, if need be. Banks likewise finance many and varied sort of businesses simultaneously.

In a *mixed mudaraba* model – first mooted in Siddiqi (1975) – the bank provides λ fraction of total capital K invested in a business. Thus, borrowed amount of money L divided by K equals λ . Where λ operates both as the loss sharing ratio for the bank as well as the leverage measure for a firm. It makes the business owners' portion in capital equal to $(1 - \lambda) K$. Of course, losses if any will be shared between the firm and the bank in the same ratios as are their capital contributions i.e. $(1 - \lambda)$ and λ respectively.

⁴Profit sharing ratio – Dictionary definition of profit sharing.

⁵Paraphrasing Bank Negara Malaysia, *mudaraba* is an agreement made between a party who provides the capital and the other - an entrepreneur – who is thus enabled to carry out business projects on the basis of sharing profit in pre-agreed ratios. However, losses, if any, are borne solely by the provider of funds. Bank Negara Malaysia <http://www.bnm.gov.my/index.php?ch=174&pg=469&ac=383>.

⁶It is this classical puritan model of *mudaraba* that underlies the discussion in many writings on the subject including that of Shamim.

Profit sharing applies to earnings that are allocable to the part of capital K a bank provides to the firm. Thus, if P were distributable profits, λP would be allocable to bank finance. It is this part of profit which is the subject matter for sharing with the firm. Negotiations between them lead to the decision that a fraction of this, say σ^* , will go to the bank and the remaining $(1 - \sigma^*)$ the firm will retain for entrepreneurial services it rendered to make bank money earn a return.

It is easy to see what goes to the bank is a smaller fraction, say σ , of total profit P than σ^* . For, $\sigma^* \lambda P$, the bank's profit share, divided by P would equal $\sigma^* \lambda$. In $\sigma = \sigma^* \lambda$ both σ^* and λ being less than 1, their product σ must be smaller than either of them. The derivation of σ allows the treatment of the ratio issue at the macro level and helps construction of models to show that profit sharing ratio is a function of the variables identified earlier i.e. the expected rate of profit r on capital K, the proportion of borrowings λ in it, the market rate of interest r_i , and the risk premium α . We have shown earlier that the sharing ratio for bank would be as under (Hasan, 1985):

$$\sigma = \frac{\lambda}{r} (r_i + \alpha) \quad (1)$$

Thus, in a competitive setting the sharing ratio σ at the macro level varies inversely with profit expectations r and directly with the remaining three determinants λ , α and r_i . We shall use this result in the following sections.

3. Profit Sharing in Practice

Many banking companies, notably in Pakistan, have been successful in mobilizing large amounts of money from the people in the form of deposits and publicize their profit sharing ratios as well. To illustrate, for the RHB-Islamic *mudaraba* is a term deposit "based on the concept of profit sharing. Under this concept, customers will provide the capital for the bank to invest for a fixed duration. The profit earned from the investment will be shared as dividend between the customers and the bank in the predetermined profit sharing ratios".

Investment accounts are classified as General where the bank is free to decide the use of funds; and as Special where the customer has specific avenues to choose from; other rules of the game remaining the same. The minimum *initial* deposit size for the General Investment Account is RM 5000 for one month or RM 2500 for two months; after which the deposit could be invested for specific tenure ranging from 1 to 60 months. For Special Investment Accounts the required minimum deposit amount is RM 100,000 for inflexible duration of 365 days. The profit sharing ratios are claimed to be the result of negotiations between the parties. The claim is fallacious; banks invariably use *standard form contracts*; signing on blank spaces is neither expressive of free will nor of negotiation.

Habib Bank of Pakistan announces each quarter two sets of profit sharing rates for the depositors: (i) declared for the preceding quarter and (ii) the probable ones for the next. It first apportions gross revenue into 30% for the bank and 70% for the depositors. It may be presumed in the absence of required information that profit allocable for distribution is divided between various deposits categories on the basis of weight assigned to each. Profit rates are then calculated and declared for separate categories.⁷

Table 1 provides the types of deposits, and the profit rates as well as the weighting system for the quarter ending June 30, 2008.

Table 1

Habib Bank, Profit Distribution for the Quarter Ending June 30, 2008

	Million Rupees	Profit Rates %	Weights Assigned
Savings	Less than 1	5.20	0.65
	1-----10	5.50	0.67
	10-----50	5.75	0.70
	More than 50	5.90	0.72
Term Deposits	Duration	--	--
	7 Days	--	0.72
	1 month	6.0	0.75
	3 months	7.5	0.80
	6 months	8.5	0.90
	1 Year	10.2	1.10
	3 Years	9.5	1.25
	5 Years	--	1.30
	Equity Fund	--	1.50

Source: Constructed from the data reported at the website of the bank.

A perusal of the data on the ratios obtained from the websites of four other Islamic banks including RHB, Standard Chartered Saadiq, Meezan and Dawood revealed the same pattern as of Al Habib shown in Table 1.⁸ Some interesting common features – albeit varying in details – of banks’ sharing profits with their depositors are as follows:

⁷The website does not provide explanation as to why PSR is applied to gross revenue in the first instance, how net profit going to depositors is calculated or what is the basis of assigning relative weights to different types of deposits.

⁸The remaining four banks have patterns closely similar to that of Habib Bank. Tables for them are not produced for that reason.

Deposits are accepted in investment or saving accounts; the investment category is further divided into general and special.

The profit sharing ratio varies from 30% to 40% for the bank; the other part is allocated to the depositors. Some banks apply the ratio in the first instance to gross revenue and then distribute profit among the depositors allocable to their share of gross revenue.

The distribution of profit among the depositors in the pool varies with category; savings receiving lower proportion than investments. Within the category, rates of profit mostly move up with the amount and duration of deposits. We could not obtain information on how individual banks arrive at these rates.

Banks included in the study all claim that the profit sharing ratio is the result of negotiations with the depositors. One is not sure if depositors, especially the smaller ones really have negotiating power and get opportunity to exercise it; or they simply sign on the dotted lines in the bank documents.

The loss if any is borne by the depositors pro rata; the assumption being that banks have no money of their own to invest or keep it distinctly separate from that of the depositors in matters of investment. The pure mudaraba model is implied operating which is most unlikely in modern times.

In any case, the question is from where does the profit to be distributed among the depositors come from? Sufficient data is not available on the uses of funds side of Islamic banks, so we cannot answer this question. The information on the sharing of profit ratios between the banks and the firms they invest in the money of their depositors is all the more scanty⁹. However, this brings us face to face with the doubts Siddiqui has raised in his paper (p.247) with reference to my comments on Khan and Mirakhor (1989, Section 2, pp. 86-87).

⁹The Malaysian Economic Report 2008/2009 revealed two interesting features of Islamic Banking in the country. Firstly, among the deposits, the substantial (26%) and the highest growth (47.8) category of deposits over the two years is unspecified as 'others'. Secondly the bulk of financing (60%) goes to the household sector signifying the dominance of fixed return murahaba in microfinancing and expanding credit card business; other sectors – agriculture manufacturing trade and insurance – put together receive the remaining 40% (*The New Straits Times Supplement*, 30 August 2008: p.7).

4. Profit Rates Equality: Untenable

Modern banks serve as intermediaries between the providers of funds, the depositors on the one hand and their users, mostly the business firms on the other (and governments). The profit banks distribute among the depositors comes from the investment of deposit money in business ventures the firms undertake. The relationship concerning profit sharing between banks and firms is of the same sort as between them and their depositors in a two-tier model.

Here, we first have a contract between the banks and the depositors which eventually gives the latter a rate of return R_b on their deposits (D_b). Secondly, there is a contract between the banks and business firms –the entrepreneurs – who borrow from the banks. The banks ultimately get a rate of return (R) on loans they advance. Palpably, R_b must be an increasing function of R operating through the profit sharing ratios agreed upon between the banks and firms on the one hand and the banks and depositors on the other.

Khan and Mirakhor used this two-tier model for their work making a number of assumptions: explicit and implicit. One of these assumptions that I missed to take note of in my comments, says Siddiqui (p.247), is that a bank in *mudaraba* finance has no money of its own to invest.¹⁰ Even if the bank has, we may further assume that it keeps the account for investments of its own money *entirely* separate from the investments of clients' deposits. But even the extension of the assumption makes little difference to our argument. In the business of a firm the contribution of the bank, even if consisting solely of customers' investment deposits, will still be a part i.e. a *proportion*, say λ , of the firms' total capital K . The profit allocable to bank finance will only be λP of the firms' aggregate profit P . Of P , $\sigma^* \lambda P$ alone will be available to the bank, giving us:

$$R = \frac{\sigma^* \lambda P}{D_b} \quad (2)$$

If the sharing ratio between the bank and the depositors were μ , the depositors would get:

$$R_b = \mu R = \frac{\mu \sigma^* \lambda P}{D_b} \quad 0 < \mu < 1 \quad (3)$$

¹⁰In fact, there was no lapse on the point The assumption was explicitly stated in our comments (Hasan, 1991: p.85) Furthermore, even if F_b and D_b were taken as equal in Khan and Mirakhor, their defense Siddiqui bases on that equality (p.247), would not hold; R_b will still be less than R . See equations (2) and (3).

Clearly, $R_b \neq R$. It will be so even if $\lambda = 1$ as Siddiqui suggests. Since the entire structure of Khan and Mirakhor rests on the untenable equality of rates, $R_b = R$ assumption, little remains defensible in that structure.

Siddiqui makes another effort to salvage the equality of rates proposition. He argued that there was no need to use *mudaraba* on the assets side of the argument (p. 247). The assumption of a *musharakah* contract between the bank and the firms, he feels, would have kept intact the model of Khan and Mirakhor. However, in that case too, the bank would get from the firms only λP from total profit and R would equal $\lambda P/D_b$. The depositors will have to leave $\mu\lambda P$ to the bank, making R_b again less than R . Thus, the result would be no different even if we use *musharakah* in place of *mudaraba* on the asset side of the balance sheet; our 1985 position on profit rates thus remains intact in either case. In fact, our comments indicated many other blemishes in the Khan and Mirakhor model some of which Siddiqui has also endorsed.

5. The Equity Question

The equality of rates is not a pertinent question in Islamic finance. Rather, pertinent is the question of fairness concerning the return the customers receive on their deposits in Islamic banking. For, fairness and justice is what Islam essentially stands for (in all human dealings). Sharing of profit is mandatory in Islamic banking but its essence is what such sharing results in? In other words, what it gives to the depositors compared to the owners (shareholders) of bank in the mixed *mudaraba* contracts.

Let me preface the discussion on the point with an observation. History bears evidence that financing has ever been an instrument in the hands of the rich used against the poor for exploitation and oppression. In the past, the flow of funds in the form of loans *was from the rich toward the poor*; interest rates were kept high rather exorbitant even as most of borrowings were for consumption purposes. The poor suffered. Today, the flow of funds with banks operating as intermediaries is from the *poor toward the rich* as the major part of national savings comes from the lower and middle income groups; it is pooled in provident and pension funds or insurance premiums. The funds so pooled go through the banks to the rich business tycoons of the community owning and controlling big businesses. The rates of interest are kept low; cheap money policy dominates modern economies.

Thus, the multitude of depositors relatively poor from the lower rungs of society is cut off from high returns their savings help businesses earn by low interest rates they get. Inflation is the order of the day that reduces their real value further. To make this binding, laws have cropped up over 200 years to make the small lender (perhaps on profit shares) to become punishable if he/she lends money, since bank is the sole lender today. Cheap money policy makes the

rich available deposit funds just for a song to magnify their profits via leverage.¹¹ Non-bank financial institution shareholders bring in about 40%-70% of capital and only rely on debt for the rest. But the banks take the deposits as bank debt from small depositors to the tune of possible 90%! Thus, the free enterprise system was unjust and exploitative of the poor in the past; and so it is today, thanks to the institution of interest.

The return to depositors in Islamic banking has made the situation no better; rather it seems to worsen it further. The situation has to be blamed mainly on the use of *standard form contracts*. The rates of return depositors are normally getting are not much different from the corresponding interest rates see Table 1 offered by the conventional banks on customer deposits.¹² “The Bank for International Settlement reports that commercial banks earn anywhere from 11% to 3% per year as ROE going to their shareholders (the profit to bank owners after covering *all* costs). If there is true profit sharing in the promotion of profit-shared banking as is so earnestly being shoved into the Muslim conscience, is a rate of profit share that is equal to the conventional “interest rate” of roughly half the 11%-31% going to the (bank) shareholders just?”

Common sense (leave alone the justice as in Qur’an) would suggest that profit share is totally misunderstood [in Islamic finance].¹³ The concept of profit sharing loses meaning if it is divorced from the basic norms of justice and fair play Shar’ah insists on promoting. How can this be done is a complex question but the key presumably lies in central banks exercising some control over the profit sharing ratios.

Classical jurists mostly conceived of *mudaraba* in its puritan form where the entrepreneur (mudarib) was empty handed of all money for business coming from the financier (the rub-ul mal): they could not foresee the modern day finance. The pronouncements on the magnitude of profit sharing ratio for the financier were based on this view of *mudaraba*. Varying ratios were considered allowable by different schools and scholars, the Malikis allowing up to 50% for

¹¹To illustrate, the bank in New Delhi where I maintain a NRE account offered me on 1 October, 2008 a long-term deposit plan for 10 years. Return of capital was guaranteed with the promise of a 10% to 12% percent annual return arising from a structured investment; the officer explained that the structure was composed of Government Securities, Infrastructure Lending and Equities; the annual yield being 30, 35, and 30 to 38% respectively. The return offered being around a third of what the bank would get on my money, looked unfair but I was told that it as a ‘take it or leave it affair’. The inflation running in double digits, was otherwise also a losing game. I declined the offer and invested the money in real estate.

¹²This author raised this point in a internal seminar INCEIF held on 28 August, 2008 on *Settlement of Islamic Finance and Banking Disputes: Issues and solutions* where bankers and Shari’ah scholars were the panelists. The justification a banker who also presented an excellent paper to form the basis for discussion provided was that Islamic banks, unlike their mainstream competitors, do not impose any penalties on depositors for premature withdrawals of their money. One is not sure how significant are such withdrawals.

¹³I endorse this observation an unknown referee made in comments on the earlier draft of this paper.

the financier (Hasan, 1985). Such high sharing ratios could be considered just in that version of *mudaraba* and the tiny scale of business operations. In mixed *mudaraba* of today and large scales of operations, a 30-40 range for profit share can be shown as exploitative of the depositors.

Let us assume that in a project, the total bank finance is \$10,000 (K). Of this the bank provides 4,000 (K_B) or $2/5 = \lambda$ of K and uses deposits worth \$6000 (K_D). The PSR, or σ^* for the bank, is 30% and the project ends with a profit P of RM 4,000. Under mixed *mudaraba* rules 40% of profit (λP) = \$1,600 is accrued to the bank on K_B and the remaining RM 2,400 to the depositors. Now, of the latter amount 30% or \$720 will be the profit share for the bank; the remaining \$1,680 will be available for distribution among the depositors. Thus, the total profit going to the bank would equal $1,600 + 720 = 2320$ giving it a return on K_B equal to 58%, while the depositors will get on (K_D), just 28%. The gap between the two returns equals 30% even as the risk exposure for both was the same. The reason is the high profit sharing ratio for the bank. What sharing ratio will keep the gap reasonable, perhaps 10%? We explore below if a solution were available.

Presumably, one must target the leverage gain available to banks in Islamic finance as a control variable¹⁴. The recent failures of such giant financial institutions as Lehman, Merrill Lynch and the AIG seemed to be stoking the same sort of fear of debt in the US and Europe as in Japan during the 1990s. The facts of the Japanese case broadly were these. The Nikkei index peaked at 38,916 on 29 December, 1989 at the end of a five year orgy of debt-fuelled speculation centered largely on the real estate market. During the fat years, banks lent against property in the confident expectations that prices would never fall, but from 1990 share prices started a 13 year decline, punctuated by sharp rallies.

The Japanese were undone by the deception of rising leverage gains (as was the origin of the Global Financial Crisis 2008-09). Soon the lure became the demon of 'de-leveraging' staring them in the face: they had to pay the price.¹⁵ Leverage must all the more be a matter for concern in Islamic finance as Islam, apart from placing emphasis on equitable distribution, does not encourage borrowing in principle. Companies that have too much borrowing i.e. a debt ratio of more than 33% of their stock market value stand out of bonds. Such criterion means that Shari'ah-compliant investors are to steer clear of highly leveraged banks, conventional or Islamic.¹⁶ Indeed, it is time for the world as a whole to be wary of loans.

¹⁴It seems to me that the lure of unbridled leverage gains may have something to do with the cloud that Taqi Usmani recently cast on *sukuk* and the Malaysian court declared BBA contracts banks executed invalid. Both are permissible in Islamic law; documentation spelling out the conditions went wrong.

¹⁵The story is being repeated in the US. The sub-prime debacle has certainly put the economy into recession that may continue for years despite the massive \$700 billion bailout effort. There has already been a loss of 71,000 and 159,000 jobs in August and September 2008 respectively. A separate Labor Department survey of households put the unemployment rate at 6.1%, a five year high [TOI, P.22].

¹⁶See 'Faith-based finance'. The Economist (print edition) Sep. 4, 2008.

Going back to our main argument, let us postulate that the central bank allows an Islamic bank the leverage gain not to exceed 10% additional to the rate of profit on total capital $K (= K_B + K_D)$ it had invested in business. Beyond that all profit is to go back to the deposit holders. Now, in the above illustration, the return on capital employed is $[(4000/10000)100]$ or 40 per cent. So, the bank can have under the constraint a maximum of $40 + 10 = 50\%$ return on its portion of capital (4,000), i.e. it cannot have more than \$ 2,000 as profit. Of this 1,600 has already accrued on its capital. So, it will have another RM 400 from the remaining profit to fill the allowable gap. This leaves \$1,600 for distribution among the depositors that would give them a return on K_D of 33.3 per cent. The constraint would thus reduce the profit sharing ratio σ^* for the bank from the original 30% to 16.67% in an *ex post* adjustment.¹⁷ We may thus state that the Islamic banks are free to negotiate the PSR with the depositors subject to the provision that their leverage gain will not exceed by more than 9% over the rate on K . Let us fix the rule using the symbols in our illustration.

The rate of profit on capital employed $r = P/K$ and the maximum leverage gain allowed to the bank is ϑ . The upper limit for return on $K_B = \lambda K$, therefore, is $r + \vartheta$. The profit allocable to the bank is λP but it also gets σ^* fraction of profit allocable to deposits, i.e. of $(1 - \lambda) P$. Thus, we may set up:

$$\frac{\lambda P + \sigma^* (1 - \lambda) P}{\lambda K = K_B} \leq r + \vartheta$$

This reduces to (4)

$$\sigma^* = \frac{\vartheta}{r} \cdot \frac{\lambda}{1 - \lambda}$$

Notice that $\frac{\lambda}{1 - \lambda}$ is equal to K_B / K_D : an alternative expression for leverage.

It is obvious that for any given values of r and λ the PSR would vary directly with ϑ . Thus, ϑ can be a policy variable that the central bank of a country can use for mandatory *ex post* adjustment of the PSR in Islamic finance to enforce fairness in the distribution of *mudaraba* profits.

6. Profit Sharing Ratio and Credit Control

I had argued in an earlier paper (Hasan, 2008) that in principle credit creation (and destruction) by banks is, within confines, an economic imperative for frictionless running and stability of an economy. In principle there presumably is no Shari'ah provision denying Islamic banks to participate in the process. Siddiqui in his paper under reference (Section 2.2; pp. 237-238) provides a neat

¹⁷The bank gets 1600 as profit accrual on its capital and the remaining 400 from 2400 allocable to depositors. Thus, $\sigma = 400/2400 = 16.67\%$.

summary of the earlier literature on the point for us. He seems to go with the view that the absence of rate of interest from the scene in the Islamic system of finance does not reduce the tools of monetary policy because the profit sharing rates (ratios) can serve as a replacement

In contrast, I had expressed the opinion that profit sharing ratio is apparently not a price for credit like the rate of interest and cannot, therefore, take its place in the central banks' arsenal of credit control. I shall now discuss the implications if attempts were made to use the sharing ratio for the purpose. The exercise has significance because in most countries a dual monetary system with mainstream commercial banks operating along with Islamic banks is in operation but it is regulated by a unitary policy.

The use of profit sharing ratio as a monetary policy tool raises some ticklish questions. For instance, which of the profit sharing ratios – σ or σ^* – is to be the target variable? Here, the choice is not difficult; monetary policy being a macro level matter σ palpably wins the day. Under mudaraba rules, σ is essentially a matter of negotiations between the parties which we know is not the case with the rate of interest. The size of σ could differ from customer to customer within a bank as also between banks. More complex questions include if in a dual banking system both the bank rate and PSR manipulations will be needed for simultaneous use or in isolation of one another? If used together, could the two be moved in the same direction or will have identical impact? Figure 1 may help answer some such questions. It has two sections X and Z. In section X, we have shown the relationship of profit sharing ratio with expected profit rate, treating β .

Rate, $i = \lambda (r_i + \alpha)$ is a constant (Hasan, 1985).¹⁸ Section Z relates to mainstream macroeconomic variables and their interrelationships; it is divided into four quadrants A, B, C and D. In A we show the usual inverse relationship between interest rate r_i and growth in output via the IS curve. Quadrant B sees interest rate in a negative relationship with the expected rate of profit r . In C we show investment having positive correlation with profit expectations while D relates savings (= I) to growth. The solid line rectangle shows the various variables in a state of stable equilibrium that can be disturbed due to a change in any of them. If monetary policy uses (lowers) rate of interest to bring about the change (to cure recession) a whole process of adjustments is set in motion shown by the direction of arrows along the broken line path until a new equilibrium is established. The readjustment process is very complicated and immediate consequences of any change a monetary policy move may initiate are difficult to predict or control.

Figure 1 provides a rather schematic demonstration. The corner points of each rectangle show that interest rates, profit expectations, savings = investment and growth in output can simultaneously have values compatible with one another depicting a harmonious and stable state of macroeconomic equilibrium.

¹⁸Refer to equation (1) above for ready reference.

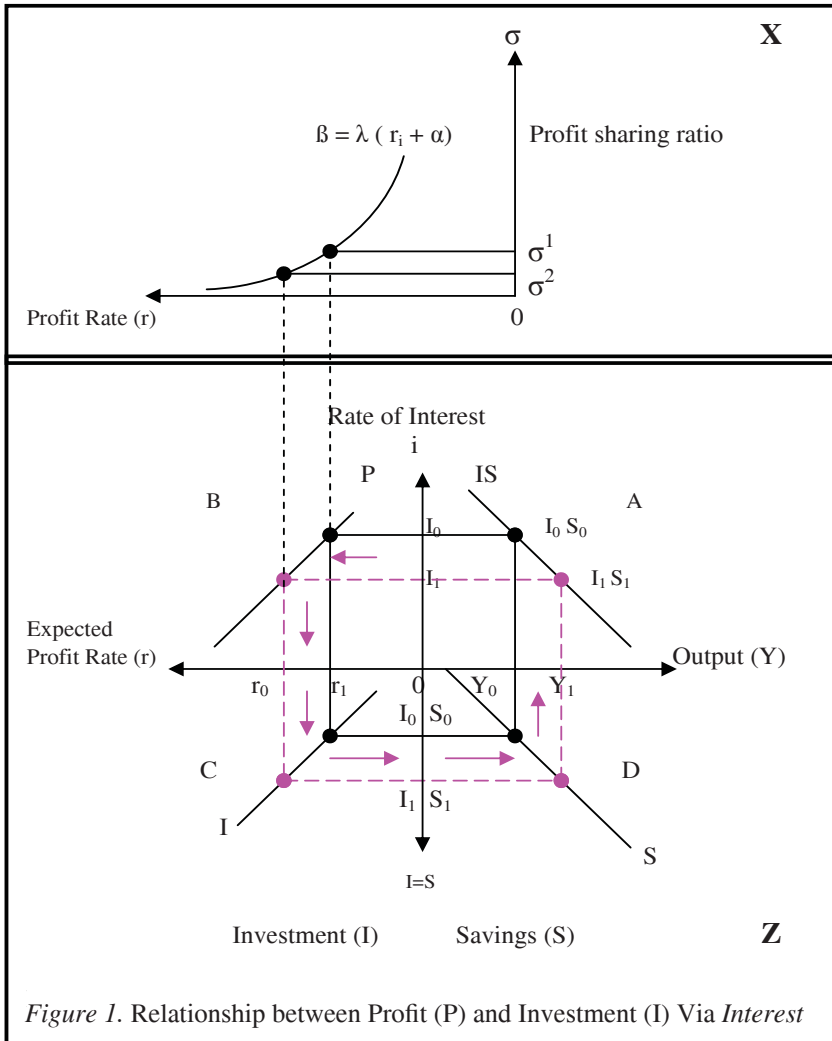


Figure 1. Relationship between Profit (P) and Investment (I) Via Interest

However, it does not help specify and explain the sequence of events or pace of change as also the implications of happenings during transition from one state of equilibrium to another. However, the figure still provides some useful insights on the issue under discussion. Putting X and Z sections of the Figure together we can venture the opinion that the use of profit sharing ratio for credit control will not be inconsistent with the simultaneous employment of the interest rate policy as both tools are related to the expected profit rates in the same direction. The rate of interest r_i and $\sigma (= \sigma^*\lambda)$ have a positive correlation

Thus, even if the central bank uses only the interest rate as a policy tool, the market is likely to readjust σ for new *mudaraba* contracts to match the altered

rate of interest. In a dual financial system like the one operating in Malaysia (and most countries), this result may be of value and significance; if interest rate applicable to mainstream banks were for instance raised to curb inflation, the profit sharing ratios will appropriately increase and the credit creation activities of Islamic banks, provided they indulge in it, will automatically be curbed.

Even as the principle and relationships are clear enough, a central bank may face many cobwebs to clear as the questions like the ones we raised earlier will have to be answered to ensure the operational effectiveness of the instrument. For example, the constant β may change due to a change in r_i , λ and α , individually or in combination and they may change in the same or opposite directions. It would be difficult to predict such changes or assess their impact. Thus, the overall impact of a change in σ may be quite hazardous to visualize. For its significance and complexities, this can be a worthwhile area for research in Islamic finance. Presumably, it would be easier and more effective to use σ as explained above in place of σ as a policy variable.

7. Conclusion

This paper has shown that the current use of mudaraba contracts in Islamic banking is beset with confusion and ambiguities. Even a cursory look at the prevalent profit sharing schemes (for example as in Pakistan), especially on how the ratios are settled and weights assigned to different categories of deposits with reference to amount and time period involved, needs scrutiny and control. A Shari'ah issue involved in the matter seems to be this: if a one month deposit were not withdrawn after the expiry of its tenure but is renewed as investment – principal + profit earned – for another month, will such renewal not attract Islamic injunctions against interest? The bankers' response to the query at the INCEIF organized seminar referred to earlier was that the reinvestment of principal plus profit is under a new contract and therefore the question is out of place. However, renewal under interest finance is under a de facto new contract too; renewal requires the consent of the depositor and the rate of interest may be varied.

A study of profit rates the depositors are getting in Islamic banks gives the impression that, but for their commitment to faith, the believers might choose conventional banks if risk factor were taken into consideration. The suggestion is to ensure fairness in the division of profit between the banks and the depositors that seems currently missing in the mixed mudarabah contracts.¹⁹ This paper suggests for consideration a policy variable ϑ the maximum enhancement over

¹⁹Some suggested in this context that banks may build return equalization reserves out of profits to smoothen rates differences over time. But what has it to do with the issue of equity? Narrowing differences does not improve the level of rates. Rather it raises the ticklish question of distributive justice between the present and the future generations of depositors.

the rate of return r the banks get on total investment K . Moreover, Islamic banks and conventional banks involved in Islamic finance may be required to publish in their periodic financial statements profit rates the banks earn on their equity side by side the rates allowed on deposits to improve information and transparency. How free are the negotiations between banks and the depositors, especially the smaller ones, may also have to be looked into. The use of standard contract forms that the depositors have no option but to sign looks patently un-Islamic.

Table 1 suggests that smaller size deposits are presumably attracting less attention of Islamic banks with reference to returns and facilities provided. Should they not differ in this matter from the mainstream banks? Is it possible to empower depositors by organizing them in some sort of councils for collective negotiations on PSRs? Such councils may be organized at the level of individual banks and have an apex body federating them. Possibly, legal basis for such organizational structures can be created and perhaps the central bank may play a role in the matter?

In view of the current financial crisis – the worst capitalism has faced since 1930 – central banks must somehow put a tab on the lure for leverage gains. Otherwise, the massive bailout exercise now underway in the US,²⁰ even if successful, will certainly not be the last. This adds weight to our suggestion of employing σ as a constraint for manipulating σ in the case of Islamic banks along with the rate of interest for the mainstream institutions to control credit in a dual banking system as the one operating in Malaysia. However, it is a complicated matter involving many imponderables. Much research is needed before making a decision including the changes legal framework dealing with banking would require.

Finally, the paper has as a minor point demonstrated in reply to Shamim Ahmad Siddiqui that even if we use musharaka contract on the asset side of the financing operations, the rate of return a bank would earn on investment of deposits in business will not be the same as the depositors will eventually receive from the bank; it would invariably be smaller.

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²⁰The bailout equity purchase of giants in trouble like the AIG went up to 80%. At the European Financial Crisis Summit in Paris on October 4, 2008 called to seek a coordinated response to the deepening credit crunch, the Italian Prime Minister declared: “I want the message to go out from this meeting today: No sound and solvent bank should be allowed to fall because of a lack of liquidity” (Times of India, p.22). All this smacks of what people in India call a nationalization program.

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