

**Volker Nienhaus**

**Profitability of Islamic Banks Competing with Interest Banks,**  
*JRIE, Vol. 1, No. 1, Summer 1403/1983*

**Comments: M. Fahim Khan**

It is true that experimenting with interest-free banking within the existing framework of interest-based banking and monetary system without making necessary institutional changes puts the experiment at a disadvantage. The inadequacy of the existing accounting and auditing system (the practice of under-reporting profit) and of the legal framework (to allow profit shared with the financier to be a cost for tax purpose) are some of the major hurdles in the success of the experiment. To this extent, there can be no disagreement with Nienhaus. The specific conclusions drawn by him, however, are not acceptable in the context he has described them. The two main conclusions that he has drawn, are

- i) Islamic banks can not neglect the market rate of interest but must base their calculations on it;*
- ii) In the long run, an Islamic bank would be less rather than more successful than an average interest bank.*

In what follows, it is argued that Nienhaus' conclusions, particularly in (i) above, are not relevant in the context of Islamic banks vis-a-vis interest banks, though they may be relevant if the existing banks were allowed to perform PLS and interest operations simultaneously under the same roof.

### **Islamic Banks vis-a-vis Interest Based Banks**

The argument that "Islamic banks must base their calculations on interest" refers to a situation where the profits of all the projects offered to the bank for financing are known in advance with certainty. This is an illusory situation for Islamic banks because in such a situation there remains hardly any distinction between interest and profit. The two will be exactly the same (see Zarqa 1981)<sup>(1)</sup>. The need of Islamic banks arises only when the profits are uncertain which is a reality and not an assumption.

---

(1) Anas M. Zarqa, "An Islamic Perspective on the Economics of Discounting in Project Evaluation" in "Fiscal Policy and Resource Allocation in Islam" ed. Ziauddin Ahmed, Munawar Iqbal and M. Fahim Khan, IPS, Islamabad, 1983.

let us use the terminology used by Nienhaus:

1.  $p^{INT} = R - CG - I$  where  $p^{INT}$  = Entrepreneur's Profit in interest-based system  
 $R$  = Total Revenues  
 $CG$  = Total Costs excluding Interest  
 $I$  = Interest Cost
2.  $p^{PLS} = R - CG - p$  PLS = Entrepreneur's profit under PLS system  
 $p$  = Total profit shared by the entrepreneur with the bank
3.  $p = \alpha(R - CG)$   $\alpha$  = brp (ratio with which bank will share profit with the entrepreneur).

If  $(R - CG)$  is known *ex-ante with certainty*, then  $I$  will have to be equal to  $p$ , otherwise either no one will go to Islamic banks (if  $p > I$ ) or no one will go to interest banks (if  $p < I$ ). The equality of  $I$  and  $p$  is the main conclusion drawn by Nienhaus (see his equation on pp. 41 and explanation in the last paragraph of the same page). It means that the entrepreneur will be indifferent to go to either of the banks only when  $p = I$ . The argument by Nienhaus then seems to be like this:

If Islamic banks want to keep the entrepreneurs indifferent between themselves and the interest banks then they will have to raise brp ( $\alpha$ ) whenever  $I$  goes up and will have to reduce it whenever  $I$  goes down. This is because

4.  $p = I$   
 implies  $\alpha(R - CG) = I$  and since  $R - CG$  is fixed and known, the equation can be satisfied only if  $\alpha$  moves in accordance with  $I$ .

This argument does not address the question as to why would there be a demand for Islamic banks when  $p = I$ ? Or how Islamic banks would take decisions to supply funds to a particular party.

The distinguishing feature of Islamic banks is that they allow for the uncertainty in  $R - CG$  and are willing to share this uncertainty with the entrepreneur. What the Islamic bank is really accepting from the entrepreneur is:

$$\alpha [\beta_1 (R - CG)]$$

where  $\beta_1$  is the bank's assessment of probability of realizing a profit equal to  $R - CG$ . The term  $\beta_1 (R - CG)$  is in fact Islamic bank's valuation of expected profit of the project to be financed. The Islamic bank advances financial accommodation on the basis of a share in the expected profit.<sup>(2)</sup> It will have all the projects ranked according to the expected profit i.e.,  $\beta_1 (R - CG)$ . Financing will start from the project on the top and it will stop when either the funds exhaust or when the marginal project yields a profit 'p' ( $= \alpha [\beta_1 (R - CG)]$ ) to the bank, just equal to the opportunity cost of the funds. The opportunity cost of the funds will be the profitability of funds in alternate investment and not the interest rate, as this alternative is not available to the Islamic banks. Thus the value of  $\alpha$  i.e. brp will depend on:

(2) Nienhaus has been using the term expected profit to mean the anticipated profit whereas I am using this word to mean the anticipated profit times the probability of realizing the anticipation - the mathematical definition of expected value.

1. The availability of funds with the Islamic banks.
2. The profitability or expected rate of return on investment in the economy (non-interest opportunity cost of investment).
3.  $\beta_1$ , the riskiness assigned by the banks to different projects. The higher the value of  $\beta_1$ , the higher will be  $\alpha$ .

Interest rate does not come into picture in these calculations. This relates to the supply side i.e. how Islamic banks will supply funds for financial accommodation. We may look at the demand side as well i.e. why entrepreneurs will demand financial accommodation from Islamic banks (besides the religious commitment).

The entrepreneur compares interest rate (I) with the interest banks and a share in profit (p) with Islamic banks against his own profit  $p^{INT}$  and  $P^{PLS}$  respectively.

$p^{INT}$  would be equal to  $R-CG-I$  if  $R-CG$  is fixed or known with certainty. If  $R-CG$  is uncertain, which is the reality, then  $p^{INT}$  will be  $\beta_2 (R-CG)-I$  where  $\beta_2$  is the entrepreneur's own assessment (which may be different from the bank's assessment  $\beta_1$ ) of the probability of achieving  $(R-CG)$ . On the other hand  $P^{PLS}$  under the same conditions would be

$$\beta_2 (R - CG) - \alpha \beta_2 (R - CG)$$

(I-a)  $B2(R^{\wedge}G)$ .

or

It can easily be seen that all those entrepreneurs who have  $\alpha \beta_2 (R-CG) \leq I$  will go to the Islamic banks. With  $\alpha$ ,  $(R-CG)$  and  $I$  as given exogenously to the entrepreneur it will therefore, depend on his valuation of  $\beta_2$  to go to an Islamic bank or to an interest bank. The higher the value of  $\beta_2$ , the more he will be inclined to go to Islamic banks.

One would, however, argue that under this system the Islamic banks will attract only the risky projects (with higher values of  $\beta_2$ ) whereas less risky projects (with lower values of  $\beta_2$ ) will go to the interest banks. This may seem to be a disadvantage to the Islamic banks but only in the short run and not in the long run. Further, according to Nienhaus, Islamic bank's revenues from profit sharing financing would not exceed the revenues of average interest bank out of their interest loan business. This may be true in a very short run (in fact in the short run Islamic banks may even earn less than the interest) but in the long run there is no reason for this to hold. It has already been argued that Islamic banks will be earning on the marginal project a rate of return on their funds which will be *at least* equal to the expected rate of return in the economy i.e., equal to the opportunity cost of investment in the economy. The rate of return on investment in the economy has to be higher than the interest rate by definition because it includes the premium of risk besides the cost of capital (i.e. interest rate). The average return on all the projects therefore will be quite higher than the interest rate. Thus we can write.

$$p > I.$$

Also we know that  $p$  is the expected return i.e. it is the product of anticipated profit  $P$  and the probability ( $\pi$ ) of realizing this profit. That is  $p = P \times \pi$ . The  $P$  will have to be greater than  $p$ . Thus  $P > p > I$ .

It is known from Mathematical Laws that the long run path of an uncertain phenomenon can be predicted with certainty. This means  $\pi$  in the long run would be close to unity and the expected profit in the long run will be equal to the anticipated profit. Thus the average return of an Islamic bank in the long run will be higher than the interest rate.

A positive relationship may be observed between brp and rate of interest in a general equilibrium framework of the economy, but still it would not mean that the rate of return to Islamic banks would be the same as the rate of interest.

### **Interest Free Operations vs Interest Based Operations within the Same Banks**

There is one situation where Nienhaus' argument that profitability of Islamic banks will be determined by the interest rate may be very much valid. This is a situation where PLS operations and interest-based operations are carried out by the same bank. This situation has been introduced in Pakistan where commercial banks operate an interest-free counter as one of their activities along with their normal interest-based activities. The banks receive deposits of those who do not want to deal in interest and keep their money in a separate account to invest them in Islamic way (without indulging in interest) and share the resulting profit with the depositors, the profit being calculated every six months.

This is a situation where Nienhaus' argument that banks can not neglect the rate of interest and must base their calculations on it would be very much valid.

Firstly, the deployment of the deposits received in the interest-free accounts is made on what is called a mark up basis. The basis of mark up is likely to be nothing but the prevailing rate of interest. Thus the profits earned on such deposits are likely to be almost the same as interest.

Secondly, even if profit sharing basis rather than the mark up basis is used, the banks have no alternative but to determine a brp that would assure the bank a profit almost the same as the interest on the interest-based advances. This is firstly because it is almost impossible to calculate the actual profit earned on the interest-free deposits. Though it is clearly known how much revenues have been earned by investing the interest free deposits, it is impossible to clearly determine how much cost has been incurred on the deployment of these deposits. The interest-free deposits and interest-based deposits are handled by the same personnel and machinery under the same roof. In the absence of any formula to apportion the costs, the banks may find it convenient to assign as much costs to the interest-free deposits as would make the rate of return on these deposits almost same as that on interest-based deposits. Secondly, even if some formula can be devised to exactly determine the costs incurred in the deployment of interest-free deposits, the bank management would still like to ignore these calculations and instead would declare only such profits (or such brp) that would ensure a rate of return on these deposits almost equal to the rate of interest paid on the interest-based deposits. If this is not done, the divergence in the rate of return and the rate of interest would cause frequent re-shuffling of the deposits between the two types of accounts in the bank. If interest-free deposits receive a higher return, the deposits from interest-based accounts will shift to interest-free accounts. In a situation where institutional arrangements have not been developed to facilitate interest free investment (i.e.,

auditing system and tax structure has not been improved as mentioned earlier), the banks find it very difficult to invest in Islamic way the increased interest free deposits. In order to avoid this problem, the only way open to the banks is to declare only such profits (or brp) that would keep the rate of return on interest- free deposits close to the interest rate.

This is the situation in Pakistan. Even though the banks have tried to keep the rate of return on interest-free deposits almost equal to the interest rate the increasing deposits in PLS accounts (on account of religious commitments) are making the bank managements panicky as to where these increasing interest-free deposits would be deployed. It was exactly this argument that the Islamic economists and Council of Islamic Ideology used to recommend to Islamize the liabilities side first (investment activities of the banks) before introducing interest free deposits.

Besides such administrative problems that force the banks to make calculations of profits or of brp on the basis of interest, there are economic reasons too that would force an equality between the two. Consider that there are two investment accounts A and B. Activity 'A' is interest-based where the bank earns revenues in terms of the interest. Activity 'B' is the interest-free one where the bank earns revenue in terms of the profit that it shares with the entrepreneur. If activity 'B' yields more revenues than activity 'A', then the bank's resources will move from activity 'A' to activity 'B' until the revenues in both activities at the margin become equal. That is how a bank would maximize its revenue. If this is done then, interest rate being fixed, the rate of return on deposits will be made equal to the interest rate. If activity 'B' yields less revenues than activity 'A' (which is un-Islamic), the reduced rate of return on interest-free deposits will force the depositors (unless they are religiously committed) to move their deposits to interest-based accounts and hence allowing the banks to equalize the rates of return on the two accounts.

Thus the rate of return on interest-free deposits will be determined by the interest rate if

- a) the interest-free accounts and interest-based accounts are operated within the same bank
- b) the banks do not have enough opportunities to invest in Islamic ways which is because of the deficiencies for example in the auditing system or tax structure.
- c) not many of the depositors are religiously committed to avoid interest.

## Conclusions

If interest free banking has to co-exist with Islamic banking then, for the success of Islamic banking, it is essential that

- a) Islamic banking should be done by separate institutions and not by the existing interest-based banks (along with their interest-based activities under the same roof)
- b) an adequate institutional framework should be developed particularly with respect to the auditing system and the tax structure that does not put the Islamic banks at a disadvantage vis a-vis interest banks and also helps them in exploring opportunities to invest all their funds in Islamic way
- c) there should be enough people religiously committed to avoid interest.