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Profitability of Islamic PLS Banks Competing with Interest Banks: Problems and Prospects

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Introduction

In many books on Islamic economics and banking published during the 1960s and early 1970s, Islamic banks are interpreted as financial institutions which base their whole "loan" business on the principle of Profit and Loss Sharing (PLS) with the entrepreneurial partners. The authors of these books usually tried to demonstrate the allocational and distributive superiority of an interest-free Islamic economy in which the conventional interest-based banking system is replaced by a system of Islamic PLS banks.

In the late 1970s and early 1980s, in several Muslim countries interest- free Islamic banks have been established and became operational. These Islamic banks. are:

- neither pure PLS banks but make also use of other methods of financing like leasing of capital goods or mark-up trading to a rather remarkable extent,
- nor do they operate in a purely "Islamic" economic environment (i.e., a financial system where interest has been abolished completely) but have to face competition with (a superior number of) conventional interest banks especially in their "loan" business, i.e., in the profitable placement of funds.

It follows immediately that the models and theories of the older literature hardly can help to describe and analyse the situation, problems and prospects of the existing Islamic banks.

There are, especially among advocates of an Islamic economic order, ambitious anticipations concerning the role of Islamic banks in the process of transformation from an interest-based "capitalistic" economy to an interest-free Islamic system: The hope is that the Islamic banks will turn out to be so successful in economic terms, i.e., so profitable for capital owners as well as depositors and without any adverse (but a number of beneficial) effects for the funds demanding entrepreneurial partners of the banks, that (on the long run) everybody will turn away from interest banks and towards Islamic banks. The result would be an evolutionary instead of a revolutionary transformation of the economic order, basically caused by individual decisions and market forces and not by political decision and governmental intervention.

The ambitious anticipations concerning the economic success of the newly established Islamic banks are often based on those theories which try to demonstrate the superiority of an economy with Islamic PLS banks compared to the present interest-based economy. But since one of the crucial assumptions of these theories, namely, that no other but Islamic PLS banks operate in the economy, is not met in the real world, it is not permissible to apply, without further considerations and reservations, the results of these theories to the real world Islamic banks and their performance.

Aims and Assumptions

For purposes of this paper the fact shall be neglected that for Islamic banks not only PLS financings are held to be permissible and legitimate according to *Shari'ah* principles (but also operations with predetermined bank revenues like in leasing or mark-up contracts). Instead, it is assumed, in conformity with the older theories of Islamic economics and banking, that Islamic banks are PLS banks. Then the aim of this paper is' in general, to demonstrate (in a simple model) that the competition with interest banks. which Islamic PLS banks have to face, will result in a pressure on the profitability of the Islamic banks and should cause the banks' management to think about some innovative strategies for the productive and profitable employment of funds. In particular. this paper will show that:

- the Islamic banks have to adapt their business strategy to market conditions which are formed by the dominating conventional banks and that Islamic banks cannot neglect the market rate of interest but must base their calculations on it,
- without certain innovative strategies of the Islamic banks' managements it is more probable that, in the long run, an Islamic bank would be less instead of more successful than an average interest bank.
- the search for innovative strategies for the profitable employment of funds might form the Islamic PLS banks, on the long run, into international operation banks, especially active in the financing of technology transfer and technology development for the Muslim countries.

Admittedly, the last consequence is a little speculative in nature but, as an implication of the competitive situation of Islamic PLS banks, at least worth considering.

The Influence of Interest-rates on the `Loan' Business of Islamic PLS Banks

To demonstrate the problems, a situation shall be assumed where all banks (interest banks as well as Islamic banks) dispose of a certain amount of deposits and are looking for profitable employment of their funds. In this paper the question, how to raise the deposits shall not be discussed; the deposits are assumed to be given and henceforth will be neglected. Profitable employment of funds means the financing of entrepreneurial investment projects; on a fixed interest basis by the conventional banks, on a profit (and loss) sharing basis by the Islamic PLS banks. Entrepreneurs are not so "Islam-minded" as to view the Islamic banks' offers as the only acceptable method of financing their projects and thus evaluate the Islamic banks' offers only as an alternative to the offers of the interest banks. There must be an economic advantage to cause the entrepreneurs to accept the PLS financing. So Islamic banks face competition with the interest banks. A general assumption is that all parties - entrepreneurs, interest and Islamic banks - are striving for the highest possible profit (within the limits set up by the law).

An entrepreneur who considers for a specific investment project the alternative offers of an Islamic and an interest bank will decide in favour of the PLS financing if the value of that part of the profit remaining to him after paying the Islamic bank the agreed-upon percentage of the project's profit is larger than the total expected profit of the alternative interest-based calculation and financing. It *must* be noticed here that "profit" is defined or calculated in two different ways:

- In the usual sense "profit" is the difference between the revenues of an investment projects and its general costs (of labour, raw material, energy, etc.,) and the costs of funds, i.e. the interest costs.
- In the Islamic PLS alternative there are no interest costs and thus the "profit" is only the difference between the revenues and the general costs.

Therefore the "Islamic profit" is by the amount of interest costs higher than the usual profit. On the other side, however, the whole usual profit falls to the entrepreneur and no further reduction for the bank has to be made, while the entrepreneur has to share the "Islamic profit" with the Islamic PLS bank, according to a "bank's ratio of profit sharing" upon which the entrepreneur and the bank agree when signing the financing contract. Let be:

R the entrepreneurial revenues from an investment project.
CG the general costs (of labour, raw material, energy, etc.,) of this project,
CI the interest costs which are calculated as the multiplication of the amount of capital employed in the investment, X, with the market rate of interest for loan capital, i
p^{INT} the usual profit,
p^{PLS} the profit as defined in the PLS system,

then the following definitions hold:

(1) $p^{PLS} = R - CG$
(2) $p^{INT} = R - CG - CI$
(3) $p^{PLS} = p^{INT} + CI$
(4) $p^{INT} = p^{PLS} - CI$.

It may be:
brp the bank's ratio of profit-sharing, i.e., the percentage of the project's profit p^{PLS} paid by the entrepreneur to the bank.

Then the condition for the entrepreneur's decision in favour of the PLS financing is:
(5) $(1 - brp)\ p^{PLS} \geq p^{INT}$ or equivalent

(6) $brp \leq 1 - \frac{p^{INT}}{p^{PLS}}$

This decision rule implies that for the entrepreneur the remaining profit is decisive. He will demand the needed funds from the Islamic bank if his share in the "Islamic profit" is equal to or larger than the whole "usual profit". Of course, the entrepreneur would prefer if the profit-sharing financing would leave him more than the interest financing. But every additional *Dinar* for the entrepreneur is to the debit of the bank. Since both the entrepreneur and the Islamic bank strive for highest profit, they will bargain and finally come to an arrangement where the "Islamic Profit" remaining to the entrepreneur is equal to the "usual profit".

Because the expected profits are determined by the investment project of the entrepreneur, and the market rate of interest for loan capital may also be regarded as given for the entrepreneur as well as for the Islamic bank, the only object for negotiations is the bank's ratio of profit-sharing. There is a maximum for this ratio. If the Islamic bank would claim even more, the entrepreneur would turn to the interest bank. The Islamic bank has to adapt its claims for a given investment project to the market conditions on the market for interest- bearing loans, i.e., esp. to the market rate of interest. The exact relation for this adaptation can be seen after some transformations of the equilibrium form of (6), i.e., when the = sign holds:

(7) $brp = 1 - \frac{p^{INT}}{p^{PLS}}$ (4) $p^{INT} = p^{PLS} - CI.$

(8) $brp = 1 - \frac{p^{PLS} - CI}{p^{PLS}} = 1 - (1 - \frac{CI}{p^{PLS}}) = \frac{CI}{p^{PLS}}$

(9) $brp \; p^{PLS} = CI = i \; X.$

Equation (9) shows that, for a given profitability of the entrepreneur's project and a given amount of needed capital, the ratio of profit-sharing will increase when the interest- rate rises and decrease when it falls.

This relation can also be read the other way round: For a given market rate of interest and different profitabilities for a number of investment projects, the ratio of profit-sharing is the higher (lower) the lower (higher) the profitability is. This can be made clear easily if one assumes two investment projects which require the same amount of capital but have different profitabilities. For the first project the ratio of profit- sharing may be exactly so that the remaining Islamic profit equals the usual profit (cf. equation (5) when the = sign holds).

- Assumed that the second project is more profitable than the first but the bank claims the same profit-sharing ratio. Then the profit remaining to the entrepreneur in case of a profit-sharing financing would be smaller than the profit in case of interest finance This would cause him to turn to the capitalistic bank or the Islamic bank to lessen the claimed ratio until equation (9) is met again.
- If the second project is less profitable but the Islamic bank claims only the same profit-sharing ratio as for the first project, the bank would miss some possible revenues, thus violating the goal of highest possible profits.

Now, if always the ratio of profit-sharing will be determined, so that the entrepreneur's remaining "Islamic profit" is equal to the "usual profit" and the payments to the interest banks are equal to the interest costs, then (for each given profitability) the payments of the entrepreneur to the Islamic bank must be equal to those to the interest bank. This can be seen from equation (9), too. This means e.g., that for a given market rate of interest the entrepreneur's payments in absolute amounts per unit of employed capital are always the same and irrespective of the project's profitability. More important, however, is the implication that the Islamic bank's revenues from profit-sharing financing would not exceed the revenues of an average interest bank out of its interest loan business.

Higher revenues, however, are the most important prerequisite for an over-average profitability of Islamic banks. But it may come even worse. There are good reasons to believe in a great danger that on the long run the revenues of the Islamic banks may be remarkably smaller than those of capitalistic banks while their costs will be higher. This is due to the specific allotment of divergences between expected and realised profits and the resulting incentives for a certain bargaining strategy of the entrepreneurs.

Sharing of "Profit Risks" and Entrepreneurial Bargaining Strategies

In the previous considerations not only the assumption was implicit that the Islamic PLS bank and the entrepreneur in each case have the same profit expectations but also that these expected profits will actually be realised in the future. Especially the last is an extremely unrealistic assumption; therefore, now it shall be abandoned and asked: what are the consequences if the expected profits are not realised. Most important is the case where the realised profit fall behind the expected profits.

Suppose that the Islamic bank and the entrepreneur have agreed upon a specific ratio of profit-sharing for the financing of a given investment project. This ratio was calculated on the basis of a certain expected profit; it is contractually fixed and will be kept for the future irrespective of the then realised profit. if the realised profit falls behind the expected profit, this means a relative loss for the Islamic bank because the "correct" ratio of profit-sharing (and corresponding to this the payments from the entrepreneur) would have been higher if the realised profit would have been correctly anticipated the day the financing contract was signed.

This disadvantage for the bank is on the other side a relative, but under certain circumstances also an absolute advantage for the entrepreneur. He has to pay less than he had to if the bank would have anticipated the correct profit. But - more important - he also has to pay less than he had to if he would have chosen the interest loan from an interest bank. His profit-sharing payments would come up to the interest costs (only) if the expected and realised profits were identical, but the "too low" ratio of profit-sharing (following from the "too high" expected profits) results in real payments to the Islamic bank that are less than the alternative interest costs. These inter-relations may also be shown in the arithmetics of the simple model used above.

The banks revenues had been defined as

(10) $brp\ p^{PLS}$

Now a distinction has to be made between those values of the variables which have been expected (especially by the Islamic PLS bank) at the time of signing the PLS contract and those values that later on are realised. It may be:

P_e^{INT}, P_e^{PLS} the value of p^{INT} and p^{PLS} expected by the bank at the time of the negotiations with the entrepreneur respectively at the time of determining brp,

P_r^{INT}, P_r^{PLS} the later on realised values of p^{INT} and p^{PLS}

Applying this distinction to equations (10) and (7), it follows:

$$\text{(11) brp } P_r^{PLS} = \left(1 - \frac{P_e^{INT}}{P_e^{PLS}}\right) P_r^{PLS}$$

$$= \left(1 - \frac{P_e^{INT} - CI}{P_e^{PLS}}\right) P_r^{PLS} = \frac{CI}{P_e^{PLS}} P_r^{PLS}$$

$$\text{(12) brp } P_r^{PLS} = CI\, q, \qquad \text{where } q = P_r^{PLS} / P_e^{PLS}$$

$$\text{(13)} \quad q \begin{cases} >> 1, \text{ if } P_r^{PLS} >> P_e^{PLS} \\ = 1, \text{ if } P_r^{PLS} = P_e^{PLS} \\ << 1, \text{ if } P_r^{PLS} << P_e^{PLS} \end{cases}$$

If the realised profits do not satisfy the expectations, q will be less than 1 and, according to (12), the revenues of the Islamic PLS bank will be smaller than the revenues of a comparable interest bank would have been. If other things keep unchanged, the Islamic bank's profitability will fall below that of an average interest bank if there are appreciable number of cases with a significant probability that the bank's profit expectations prove to be "too optimistic". It would not be wise to ignore such a probability: The entrepreneurs must feel a very strong incentive to present documents for their investment projects wherein expected profits are calculated as high as justifiable though they themselves believe only smaller profits to be more probable. But the higher the bank's profit expectations will be, the lower will be the claimed ratio of profit-sharing, and if the entrepreneurs' more sceptical expectations become true, there will be an advantage for them compared to a financing of the investment projects by interest banks. If the more optimistic expectations can be realised. this is of no disadvantage for the entrepreneurs.

One may object that the presentation of "too optimistic" calculations runs counter to the Islamic business morality. This may be true, but there can be no doubt about the fact that in today's economies of Muslim countries the Islamic business morality is by no means generally adhered to. Therefore Islamic banks have to count on that at least some of their prospective customers will present "too optimistic" calculations. But the bank cannot know a *priori* who of the funds demanding entrepreneur has done so.

- Therefore Islamic banks will have to audit all investment calculations and prospective profit accounts very carefully.
- But even the most painstaking examination cannot hinder that too optimistic future profitabilities will be used sometimes for the determination of the ratio of profit-sharing. Because of this, for a general protection against (relative) losses from following "too optimistic" entrepreneurial calculations the Islamic banks may generally make a certain reduction of all calculated profitabilities.

If the banks will do so or only the entrepreneurs (who will hardly get an insight into the banks' calculations and examinations of the presented documents) believe that the banks will do so, all entrepreneurs will feel more or less urged to present "too optimistic" calculations, since otherwise they are in an inferior bargaining position. In those cases where the entrepreneur has presented his "really" expected profits but the bank reduces his calculations, the entrepreneur will turn to the interest banks. Only those remain to the Islamic bank who expect, even after reduction, a smaller or at least the same profit as the bank.

Therefore it is hard to believe that an Islamic bank can ensure the future realised entrepreneurial profits to be on the average not less but equal or even larger than those expected by the bank when entering the profit-sharing contracts. Islamic PLS banks have to face this basic problem and the resulting pressure on their profitability in interest economies. To encounter the resulting dangers, the bank's management has to meet high requirements and find some innovative and profitable ways to employ the funds.

Accumulation of Market Knowledge and Islamic Banks' Strategies

There are two main tasks for the Islamic banks' management:

- the protection against "too optimistic" expectations and resulting damages in the bank's proceeds from profit- sharing financing,
- the opening up of new innovative opportunities for high profitable profit-sharing engagements.

An interest bank can often standardise its credit investigations and confine itself to an examination of the securities for credit. But an Islamic bank can hardly ever resign an (additional) examination of the profit calculations, since its revenues are not fixed and independent of the entrepreneurial profits but depend on them directly. The problem with these examinations is not so much one of calculation techniques but one of well-founded knowledge in those markets wherein the entrepreneurial partners intend an engagement with their investment projects.

The prerequisite for a meaningful examination of market chances are very comprehensive entrepreneurial qualities of the bank management. The whole management of a non-specialised Islamic PLS bank ought to have qualities of a "super entrepreneur" acting in a great and ever- changing number of markets.

It is hard to imagine that a single I and could really concentrate so much knowledge in its staff that it would be able to examine any investment project whatever it deals with. Instead, it seems to be a very convincing assumption that each Islamic bank will, sooner or later, start a specialisation in the financing of investment projects in specific regions and/or in specific sectors of the economy.

This specialisation probably will have some far-reaching consequences. In the first instance, the banks may accumulate intimate knowledge of those markets on which they have concentrated in their project financings with entrepreneurial partners. This may enable the banks to protect themselves more efficiently against "too optimistic" entrepreneurial calculations in these areas, although a perfect protection seems to be impossible. But when the banks get familiar with some sectors and have accumulated much knowledge and employ a top management with entrepreneurial qualities in these fields, they certainly will ask themselves one day: Why utilize this potential only for the (passive) examination of entrepreneurial demands for investment financings but not also actively for own investment efforts that might bring the hank the needed compensations for the inevitable damages in revenues from `normal' profit-sharing financings (and for the rather high costs of its qualified personnel). The bank would no longer wait until an entrepreneur presents a project but starts itself searching for opportunities in the markets where it has specialised in.

Such a specialisation with a subsequent active own search for investment opportunities by the bank may happen first in economic sectors with relative low complexity esp. in technical and organisational respects, e.g., in trade, transportation and house-building. It must be noticed that Islamic PLS banks, when following this line of business, change their character. They no longer deal with money or capital exclusively but also with commodities, products and services; they will not only be banks but become - at least partially - traders, too. It is also imaginable that a number of specialised investment companies will come into being offering their services to Islamic banks who could then dispense with their own specialised investment management. The "real" loan business, i.e., the profitable employment of funds, is transferred to autonomous enterprises. but for an analytical treatment of an Islamic financial system investment companies and banks may be seen as an economic unity.

The thesis is that in a `capitalistic' world Islamic banks will become a kind of merchant banks instead of universal commercial banks. Therewith they would resume and continue an old banking tradition of the medieval Islamic Near East that was broken not before the middle of the 19th century under the increasing influence of European ideas and powers. Previously, there were no banks as specialised institutions. Banking activities were combined with regular commercial operations, and they only assisted and complemented the merchant performing his traditional business of buying and selling, exporting and importing, etc. The evolution of modern Islamic PES banks, as outlined above, might result in financial institutions of a very similar character to those old "merchant-cum-banking enterprises". But it should be noted that this result was not derived by a recourse on somewhat dubious theories of a specific "Islamic" or "Near Eastern" business style but is due to some conceptual characteristics of Islamic PLS banks and their effects in the process of competition with interest banks.

Islamic Banks and National Development

If this structural prognosis is accepted, then at least some further thoughts should be devoted to one important macro-economic aspect. If one can assume that the industrialisation is a priority goal of most governments in Muslim countries, it should be discussed in which way Islamic banks could contribute. That the mid and long-term financing of (new) industries cannot be the main field of activity, if any, for merchant banks and analogous Islamic banks seems obvious. Nevertheless, Islamic PLS banks could contribute to national development in a certain way if they follow a specific participation strategy. It may be assumed that the Islamic bank has accumulated (in its own management or by consultants) particular knowledge of the domestic economy, i.e., knowledge of (some) markets as well as knowledge of governmental development plans. There will be quite a number of products which are useful and necessary for the national development but have to be imported from abroad. Islamic banks, now, could not only finance these imports (as pure merchant banks) but go one step further and - suppose they are not only engaged in trade but also have some knowledge of markets for certain products - could try to get in contact with suppliers of important goods which have good market chances in the bank's home country. The bank could search especially for entrepreneurs who not only produce interesting goods but also have innovative ideas and investment projects in those fields the Islamic bank is familiar with. The bank could then offer a combined investment financing with the subsequent financing of imports of the products into its. home market on profit-sharing basis.

This combination of investment and trade finance may be a very competitive offer to the foreign entrepreneurs. But the chances for a profitable employment of funds may still increase if the bank concentrates on specific types of business partners abroad, e.g., on small or medium-sized enterprises in Western countries because these are, on the one hand. often very innovative but, on the other hand, do not seldomly have serious to obtain the funds needed for the realisation of innovations from conventional interest banks. This is due to the fact that:

- normal commercial banks usually cannot reliably examine the market chances of innovations and therefore claim high credit securities,
- the entrepreneurs especially of this medium-sized group can, on the average, hardly meet these claims for securities;
- since Western banks have the alternative e.g., of buying high interest-vielding government securities, they usually prefer these instead of financing more profitable but also more risky investments.

Here may be a chance for the Islamic banks:? They have the potential for checking market chances for certain investments respective products; in specific regions, and for them the alternative of buying interest-vielding securities is conceptually blocked.

If Islamic banks follow the indicated line of business, this may result in mutual gains for the Islamic banks, their developing home countries and the innovative entrepreneurs. Governments therefore should not restrain Islamic banks when employing profitable funds abroad but on the contrary should support such international capital movements resulting in a closer economic cooperation among Islamic countries but may be also between Islamic and Western countries.