Three Decades of Experimentation: Rethinking the Theory of Islamic Banking

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Abstract: Three decades after its first inception, Islamic banking continues to attract the intellectual curiosity of economists and practitioners in the Muslim world as well as within academic circles in many parts of the world. This paper aims to further refine the theory of Islamic banking after nearly three decades of experimentation, which argues that the profit and loss sharing (PLS) advocated by Muslim economists, as an alternative to interest-bearing practices did not find favourable feedback in the financing of short-term operations within Islamic banks. Given this is the Islamic banks' responsibility, who have failed to comply with that alternative solution to interest-bearing practices, should we then think of a new way to solve this problem? This paper, thus, attempts to find an answer to this question through examining the theoretical as well as practical aspects of Islamic banking.

I. Introduction

No one can deny the tremendous progress of Islamic banking since its timid start in a small village, in Egypt during the 1960s. However, the real launching of Islamic banking occurred during the mid-1970s when public and private efforts contributed to the creation of Islamic banks in the Gulf region, in Pakistan and later in Iran and other parts of the world. The *leitmotiv* of Muslim economists was the compliance to the principle of profit and loss sharing (PLS) instead of the interest-bearing practices of conventional banking. A great many research papers and academic dissertations have been published since then in Arabic, English, French as

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also in other languages, as the number of papers and academic dissertations dealing with that specific area of Islamic economics is growing day by day. The subject of Islamic banking has been integrated as a major topic in the masters programme of some prestigious universities. However, after nearly three decades of Islamic banking practices, what is the lesson we can learn from that specific domain of Islamic economics?

The purpose of this paper is not to review the practical experience of Islamic banking, as other authors have already done so, such as Ariff (1988). However, given that Islamic banks failed to comply with an alternative solution to interest-bearing practices, should we then think of a new way to solve this problem? This paper, thus, attempts to find an answer to this question through examining the theoretical as well as practical aspects of Islamic banking.

Most Muslim economists agree that Islamic banking has succeeded in the battle of what some scholars call 'the mark-up phase'. All that is needed now is to pass through the next step which is 'the PLS phase', where mudārabah, mushārakah and the like participating modes of finance can be extensively used by Islamic banks. The difficulty in passing to that second phase made me think and rethink about what might be qualified as 'the imperfection in the implementation of the Islamic PLS principle'. It is until recently that I have had the conviction to refine the theory of Islamic banking in the light of more than a quarter of a century of Islamic finance practices. This paper, hence, deals with that new approach to Islamic banking by distinguishing between retail banking and wholesale banking. Islamic deposit banks are monetary financial institutions that mobilize funds of savings surplus units and reallocates them into the economy by providing finance to a large number of savings deficit units. To use participating modes of finance such as mushārakah, we need to think about another institutional setting where non-monetary financial institutions (similar to what is referred to in the French language as banques d'affaires) will be created to mobilize long-term resources. These funds will be reallocated as long-term finance to a limited number of business enterprises where the use of PLS modes will be possible. In that case, the critics of Islamic banks, who essentially practice retail banking, will attenuate. There is an urgent need to distinguish between financing current assets and investment assets. As retail banks, Islamic banks will continue to use mark-up modes of finance such as murābaḥah, salam, istithnā', ijārah, ju 'ālah, etc., which are most compatible with their vocation as providers of short-term finance. We need not wait

until the publication of the company's results to calculate the share of the bank in the profits realized. This operation, however, will be possible with the proposed non-banking financial institutions specializing in providing long-term finance.

Finally, as many Islamic financial institutions operate in a dual system, it is necessary to take this fact into account, as Islamic banks are not free to impose the profit margin they like. This constraint does, therefore, need to be taken into account and the paper proposes a mathematical model to analyze the limits of Islamic banks in determining their part of profit. In this way, three decades of Islamic banking practices are quite sufficient to further refine the theory of Islamic banking.

II. The Concept of Islamic Banking

The majority of $fuqah\bar{a}'$ (scholars of the $Shar\bar{i}'ah$) and Muslim economists consider the practice of interest as prohibited. Indeed, authors of conventional banking announce clearly that the main activity of traditional banks is the 'commerce of money'. Acting as a financial intermediary, the bank mobilizes funds of savings surplus units in the form of deposits and lends them to savings deficit units. The remuneration of the bank is equal to the difference between interest received from borrowers and interest paid to depositors.² Such activity of trade in money has clearly been condemned by our $fuqah\bar{a}$ ' whatever the term – short or long – or the purpose of the loan, whether for consumption or production.

While accepting the role of financial intermediary, Muslim economists proposed alternative solutions to the practice of interest. This was the case with Chapra (1982), Boudjellal (1982 and 1992), the Council of Islamic Ideology of Pakistan (1983), Homoud (1985), Aftab (1986), Ariff (1982), El-Din (1986), Iqbal and Mirakhor (1987), Kahf (1982), Khan (1986), Jarhi (1983), Man (1988), Mohsin (1982), Nienhaus (1983), Scharf (1983), Siddiqi (1982) (1983), (1988), Uzair (1982), Iqbal and Jarhi (2001) *etc.*³

Muslim economists define the Islamic bank as an active partner who accepts to share the business risk with its clients. Profit and loss sharing (PLS) has become the *leitmotiv* of the theoreticians of Islamic banking.

To formulate this principle into practice, Muslim economists suggest Islamic banking should use PLS modes of finance such as *mushārakah* and *muḍārabah*.⁴ Depositors are remunerated *ex-post* depending on the profits realized by the bank. The latter receives revenues as part of profits realized by savings deficit units being financed by that bank. The two tier

muḍārabah contracts make it possible for Islamic banks to get money for their role as financial intermediaries between savings surplus units and business enterprises in constant need of more financial resources. Islamic banks are meant to be remunerated *ex-ante*. This is the difference between Islamic and conventional banks. However, the question remains to be answered how this is formulated in practice.

III. Islamic Banking in Practice

After three decades of experimentation, we can affirm that Islamic financial institutions have become a worldwide reality and are progressing at a relatively satisfactory pace. The following table gives an idea of their distribution across the world.

Table 1: Distribution of Islamic Financial Institutions (IFI's) operating in 1997 by Area

Area	Number of IFI's	%
South & South East Asia	82	47
Gulf Cooperation Council	21	12
Other Countries in the Middle East	26	15
Africa	35	20
Europe, America & Australia	12	6
TOTAL	176	100

Source: International Union of Islamic Banks, *Directory of Islamic Banks and Financial Institutions*, 1997, Jeddah, Saudi Arabia.

It can be seen that until 1997, 176 Islamic financial institutions were operating around the world while, two decades before, their number was about 5% of that figure. South and South East Asia account for about half of the total of IFI's. This fact may be explained by the economic boom recorded in that area, which contains high performing Islamic countries such as Indonesia and Malaysia. However, in terms of deposits, the bulk of the banking activity is concentrated in the Gulf and Middle East area with about 73% of total mobilized savings (Jarhi and Munawar, 2001). In addition, we notice that IFI's operate in the five continents. Recent data indicates that the total number of IFI's has reached 261 with assets amounting to USD 250 billion and progressing at 10% per annum. Some Western banks have even taken the decision to create, within their organizational structure, windows to provide Islamic financial services specially designed for the

Muslim community. Wilson (1982) has summarized this phenomenon well by stressing that the commitment of the number of conventional banks to provide their clientele with Islamic banking services is a solid proof of the success of Islamic banking.

IV. What is the Lesson to Learn From the Islamic Banking Experiment?

Despite this encouraging progress, Islamic banks have not succeeded in formulating into practice the principle of profit and loss sharing stated above. The use of PLS modes of finance is lagging well behind the mark-up modes of finance where the profit of the bank is calculated *ex-ante*. Most Muslim economists exhort Islamic banks to step over the 'mark-up phase' and tie up with the 'PLS phase', as if these banks deliberately avoid engaging in this second phase.

After three decades of experimentation, we notice that the Islamic modes of finance are of two kinds. The first category contains the *PLS modes* such as *muḍārabah*, *mushārakah*, *muzāraʿah* and *musāqāh*.⁵ In all cases, the remuneration of all parties will be *ex-post* based on predetermined ratios of profit (or loss) sharing. This resembles more the remuneration of ordinary shares in shareholding companies.

The second category, however, concerns the mark-up or fixed return modes of finance where the profit of the bank is calculated *ex-ante*. This applies to the modes frequently applied by Islamic banks such as *murābaḥah*, *ijārah* (leasing), *salam*, *istithnā*', *ju*'ālah, *etc*.

The excess use of this second category of modes of finance by Islamic banks⁶ suggests a certain prudence, or even the rationality of these institutions towards financial and business risks induced by PLS modes of finance. Indeed, Islamic banks need not wait until the end of the financial year to know their share in the profits of financed businesses.

Another point to specify is that, when speaking about Islamic banks, most Muslim economists refer, consciously or unconsciously, to commercial banks, which mobilize savings in the form of deposits, create money and deal with a large public. In other words, we have a tendency to confuse Islamic banks with retail banks. Is it judicious to require Islamic banks – supposed to be more engaged in retail banking – to use PLS modes more extensively?

If we know that Islamic banks deal with a large number of savings deficit units, it would be inopportune to make such a requirement. Is it logical that Islamic banks, which are more engaged in financing a production cycle, wait until the end of the year to check the publication of the profit and loss accounts of these units to know their eventual part of profits, if any? If so, with how many clients will they proceed with these interminable computations? This explains why Islamic banks prefer the use of mark-up modes of finance where the profit of the bank is known *ex-ante*, in order to avoid the complexities attached with the PLS modes used by retail banks specializing in providing short term finance.

As to the question what we will do then with the PLS modes of finance, no one doubts the convenience of PLS modes for long-term projects where funds are needed for investment operations. In such cases, banks are in a better position to monitor invested funds, to know generated cash flows and calculate their share of profits. On the other hand, financing long and medium term investment projects can be done with a limited number of business enterprises as this kind of operation requires a lot of money. This leads us then to distinguish between non-banking (or non-monetary) financial intermediaries on the one hand, and monetary (or retail) financial institutions described above, on the other. We can call these non-monetary intermediaries PLS banks (in Arabic: bunūk al-mushārakah) because, they are in a better position to use profit and loss sharing modes of finance; and they deal with a limited number of savings deficit units.

They resemble much, in that case, specialized financial institutions such as merchant banks in Great Britain or investment banks in the United States or *Banques d'affaires* in France, with the difference that these conventional investment institutions use interest rates⁷ whereas PLS banks use Islamic PLS modes of finance.

V. Distinctive Features of PLS Banks and Investment Banks

In a conventional economy, investment banks are financial corporations specializing in financing long-term concerns even if, occasionally, they get involved in short-term operations. The remuneration of the bank depends on the duration and the amount of capital supplied. Interest rates applied on long-term financing schemes are in general higher than those applied on short-term finance. PLS banks, however, also get involved in long-term operations but they avoid using interest; they use, in fact, PLS modes of finance such as *mushārakah* and *muḍārabah*. Their main activity is to finance fixed assets and not current assets. This activity is rather linked to the creation of new concerns, *i.e.* the stimulation of investment and not to afford for short-term cash flow needs. Short-term finance concerns day-

to-day operations while investment activities require long-term finance. In effect, when starting a new business, an entrepreneur needs help. In such a case, investment banks are better placed to provide help and assistance in different manners. The creation of a new business is not an easy task. It is rather a risky and tough exercise. The investment bank takes an active part in the starting up of new enterprises in either a direct or an indirect manner.

In the case of direct participation, the bank will act as an entrepreneur for a certain period of time. Together with the founders, it will study, analyse and scrutinize all technical, commercial and financial issues related to that creation. In such a case, the bank will participate, along with the founders, in the capital of the company.

There is another way of creating business enterprises: once the feasibility study is achieved and the needs for funds are determined, the investment bank will assist the founders in the issue of long-term securities (shares and $suk\bar{u}k$ al- $ij\bar{a}rah$ in the Islamic system, shares and bonds in the conventional system, see Kahf, 1995). In such a case, the entrepreneur would have prepared his task force plan without the help of the bank. He will further ask for the bank services to call for public savings by issuing shares and/or $suk\bar{u}k$ in the Islamic system, bonds and/or shares in the conventional system. It is this intermediary role of modern banking in the stock exchange market, which is new to the banking industry. To face challenges imposed by financial globalization and the ongoing process of disintermediation, modern corporate banks were compelled to keep the pace by developing new strategies and providing new financial services in the stock market.⁸

In this second hypothesis, the bank does not face the same risks as long as it is not directly involved in the issue of the stock. Its role is limited to the selling of its services to the issuing company and if the issue does not succeed, it will inform the founders that the shares, bonds, or $suk\bar{u}k$ did not attract the public.

However, the investment bank and the PLS bank may go beyond the catalyst role of creating new enterprises. They may assist ongoing businesses in their expanding plans, which require the raising of new capital. In that case, new shares are issued and the process is repeated in the same way as described above.

VI. The Investment Bank and the PLS Bank Operate with Long Term Funds As the French adage says, 'business is the money of others', this applies for the short-term only and not for the long-term. That is why caution is advised because a lot of time is needed before judging the results. An investment bank or a PLS bank should dispose of large capital and important reserves to be able to finance high rate fixed assets. Commercial or deposit banks usually have a much lower rate of fixed assets than that of investment or PLS proposed banks. Indeed, it happened whereby fixed assets in commercial banking were as low as 1/50 to 1/100 of total assets. It is the factor of prudence that imposes this fraction. Depositors may withdraw their money at any moment because their ambition is limited to the short-term only. Meanwhile, the ratio of fixed assets to total assets in an investment bank may attain 1/5 to 1/6.

The same rule of prudence applies to Islamic deposit banks and PLS banks. Being aware that Islamic deposit banks work with the money of others, they avoid engaging in long-term operations, and therefore they cannot use PLS modes of finance in an extensive way. Hence, they prefer using mark-up modes where the profit is determined *ex-ante*. This explains why the bulk of the Islamic banks' portfolio is composed of fixed return modes of finance.

However, investment banks and PLS banks are best placed to use PLS modes of finance. This is the fundamental characteristic of a PLS bank: to hold equity stock in selected business companies. It accepts to take the risk of the venture in supplying its funds. In this respect, there is a rule to be observed: investment banks and PLS banks cannot invest short-term deposits in long-term projects: they should have deposits of more than two years at least. This is why PLS banks, like investment banks, prefer dealing with a particular segment of economic units, who accept to offer their surplus funds for a long period. Such depositors are generally limited in number.

VII. PLS Banks are Limited in Numbers

The similarity of the investment banking industry with the PLS banking industry would lead us to predict that unlike Islamic commercial deposit banks, PLS banks would be limited in numbers and may take the name of wholesale banking or high banking. They mobilize long-term funds and invest them in a limited number of savings deficit units. The amounts invested are generally important and channelled for long dated concerns. In that particular case, it would be possible to use PLS modes of finance. It is this specific characteristic that distinguishes between an (Islamic) PLS bank and an Islamic deposit bank. The former is a wholesale bank making

business with a small number of savings deficit units, whereas the latter is engaged in retail banking by receiving deposits of a large number of savings surplus units to be reallocated for a large number of businesses (for short-term productive purposes) and households (for acquisition of consumer durables). It is therefore more convenient for an Islamic deposit bank to use mark-up modes of finance to provide funds for such specific production or consumer needs.

The reserve of Muslim economists towards Islamic banks preferring mark-up modes of finance to PLS modes does not always stand on solid ground. In other words, it is worthwhile rethinking the theory of Islamic banking in the way presented in this paper. It is a matter of the further rationale of economic thinking to refine the theory of Islamic banking in light of three decades of Islamic finance practices. Within the spirit of the exposed theory, the achievement so far of Islamic banks is not always blameworthy. Contrary to what is often said on this subject, there is a need to invert the reasoning and admit that the Islamic banking practices incite us to rethink our effort of theorization in light of the constraints encountered on the ground. Fixed return modes of finance comply with *Sharīʿah* rules. Its excessive use by Islamic banks should not be the subject of critics. In fact, we need to castigate our incapacity to think about another institutional setting where other non-monetary financial intermediaries would be best placed to use PLS modes of finance.

The present paper aims at fulfilling this deficit of theorization by proposing the creation of new types of financial intermediaries capable of formulating into practice the PLS modes of finance by accepting to take the risk of holding stakes in new or ongoing concerns. Within the spirit of the proposed theory, the Islamic banking system would henceforth contain two types of financial intermediaries: the Islamic deposit banks or retail banks which may be defined as monetary financial intermediaries that accept deposits (large or small), create money (out of recorded deposits) and provide short-term-finance for productive as well as consumer purposes. The second type consists of PLS banks or wholesale banks, which may be defined as non-monetary financial intermediaries, specialized in mobilizing long-term funds to be channelled to a selected number of savings deficit units for investment purposes. They do not create bank money and, unlike Islamic deposit banks that use essentially fixed return modes of finance, PLS banks use profit and loss sharing modes by holding equity stakes in selected business companies. Both types of defined financial intermediaries

(monetary and non-monetary banking institutions) can be gathered in one single appellation: Islamic financial institutions.

Once this new institutional setting has been clarified, another aspect needs to be analyzed. It has to deal with the determination of the profit of Islamic financial institutions (IFI's), whether a fixed return or a sharing ratio, in a dual system where IFI's compete with conventional financial intermediaries in a common market. In other words, what will be the behaviour of IFI's in a market where conventional financial institutions already exist?

VIII. Rivalry Between Islamic Banks and Conventional Banks: A Theoretical Approach

Operating within the same economic environment, rivalry between Islamic banks⁹ and conventional banks is unavoidable. Because of the competition imposed by the latter, Islamic banks are not free to fix their profit margin, whether *ex-ante* or *ex-post*. Conventional banks obviously use the interest mechanism to determine their revenues. It will therefore be interesting to analyse the constraints that compel Islamic banks to observe the lending conditions imposed by conventional banks in the process of determining their profit margin on the funds supplied to savings deficit units. To illustrate the problem, we need to set the following hypotheses related to lending conditions:

- Both types of banks seek to provide finance for profitable concerns only;
- (ii) Islamic banks use the mechanism of profit and loss sharing (PLS) whereas conventional banks use the interest mechanism;
- (iii) Businessmen are free to choose between the two types of financial intermediaries;
- (iv) Both types of banks seek profit maximization;
- (v) The taxation impact is ignored in the model.

The entrepreneur, who represents in that particular case the savings deficit unit, will choose the Islamic mode of finance on the condition that his profit will be higher compared to the conventional mode of finance based on interest rate payments. The method of calculation of profit in the case of interest payments (pi) is different from that of PLS. In the first case, pi can be calculated as follows:

pi = sales - overheads - interest on debts (iD)

Under the PLS mode of financing, the businessman need not pay financial expenses (interest on debts) because they do not exist. Therefore, he will obtain a profit margin (p) which is higher than pi. However, he has to pay the bank on the basis of a predetermined profit ratio (ppr).

The amount to pay to the bank = (ppr) x (p).

Henceforth, his profit before tax will be:

$$p - (p \ x \ ppr) = (1 - ppr) \ x \ p$$

The businessman would choose the PLS financing mode on the condition that:

$$(1 - ppr) x p \ge pi \tag{1}$$

Starting with the fact that the two parties know the interest rate (i), and supposing that the profit (p) can be determined ex-ante on the basis of accurate forecasting, the only variable still to determine is the bank rate on profit (ppr), which is to be determined ex-ante as well. Negotiations of the two parties will concentrate on this particular variable. To fix its ppr, the Islamic bank cannot exceed a certain ceiling; otherwise, the businessman would choose the least costing lending conditions, i.e. the conventional bank.

To isolate the variable *ppr*, we need to go back to equation 1 as follows:

$$(1 - ppr) \times p \ge pi$$

 $1 - ppr \ge pi/p$
 $-ppr \ge (pi/p) - 1$
 $ppr \le 1 - (pi/p)$ (2)

Recalling that *p* is equal to *pi* plus the interest payment on borrowed capital, which can be formulated as follows:

$$p = pi + iD$$

hence,
 $pi = p - iD$
Replacing pi in equation 2:
 $ppr \le 1 - (p - iD)/p$
 $ppr \le 1 - (p/p - iD/p)$

$$ppr \le 1 - (1 - iD/p)$$

 $ppr \le 1 - 1 + (iD/p)$
 $ppr \le (iD/p)$

If the Islamic bank decides to put the same condition as that of its rival, it should determine its PLS ratio as follows:

$$ppr = (iD/p) \tag{3}$$

This equation shows that the Islamic bank's rate of profit (*ppr*) is proportional to the prevailing interest rate in the market. The same equation can be interpreted in a different manner: for a given interest rate and different levels of profitability, *ppr* increases when the profit of the businessman decreases. The opposite is true. In this context, let us analyze the strategy of both parties –the Islamic bank and the businessman-during the process of negotiations for determining *ppr*.

8.1. Strategy of the businessman

It is clear that the businessman would build his strategy on the fact that he will not choose the Islamic mode of finance unless the share of the bank on his profit margin would not exceed the amount of interest he will have to pay to the conventional bank. This means:

$$(ppr) x(p) = iD (4)$$

As anticipated, p cannot be assimilated to actual profit realized (pa) except in a situation of certainty - which is not the case in the real world - where we can replace (ppr) in equation (4) referring to equation (3), and get the following equation where both anticipated profit (p) and actual profit (pa) are represented:

$$(iD/p) x pa = iD (5)^{10}$$

What would then be the consequences on the decision of the businessman if anticipated profits are not realized? The answer to this question leads us to study the Islamic bank's strategy.

8.2 Strategy of the Islamic bank

Overestimating profit (*p*) will be advantageous for the businessman because, in that case, the bank will receive less money (recall that *ppr* decreases when

p increases). In terms of statistics, the bank should reduce as much as it can the standard deviation to obtain the smallest coefficient of variation. Henceforth, the more optimistic the anticipations of the bank, the more likely it will move away from reality. The bank is then compelled to reduce the profit (p) to its minimum, whereas the businessman would do the opposite. If we go back to equation (5), all strategies would turn around the quotient (pa/p). In that case, we find ourselves facing three possible scenarios:

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Scenario 1: (pa/p) x (iD) = iD, if pa = p;
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This means that we are in a situation of certainty. In that case, and if we put aside religious considerations, the businessman is indifferent about the two modes of finance. However, this situation is unlikely to happen because businesses operate in an uncertain world.

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Scenario 2: (pa/p) x iD < iD, if pa < p;
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In that case, the Islamic mode of finance will be advantageous for the businessman and the bank would have missed a chance to gain more money.

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Scenario 3: (pa/p) \times iD > iD, if pa > p;
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In that case the businessman decides to choose the conventional bank because the share of profit to pay to the bank is higher than the interest to pay on a conventional loan.

Out of these three scenarios, we can see that competing with conventional banks, Islamic financial institutions are not free to impose the conditions they like. The prevailing interest rate constitutes a real constraint in the process of determining the bank rate of profit (*ppr*).

Henceforth, this will facilitate a certain convergence of lending policies of the two types of financial intermediaries. The intervention of IFI's would only strengthen competition and push down interest rates, which is likely to stimulate investment and enhance economic development. The sustainable development of IFI's in terms of size and number of banks created so far will not turn upside down the customs of the market, the conduct of

the monetary policy or the monitoring of the banking system. The IFI's would simply contribute to the enlargement of the financial system to give more chance to savings deficit units to choose the most appropriate mode of finance they like. Meanwhile, they will offer to savers more financial products that comply with *Sharīʿah* rules. That is why most observers believe that Islamic banks are not an ephemeral phenomenon. Their rate of progress indicates that they are here to last as long as human beings exist on earth. The decline of conventional banking activities, or more precisely the traditional financial intermediaries, coupled with the rapid growth of investment banking and venture-capital companies justify the merits of PLS finance (Warde, 2001).

IX. Conclusion

This paper attempted to fill a gap related to the functioning of Islamic banks, which continue to give privilege to mark-up or fixed return modes of finance onto PLS modes. The theoretical contribution of the present paper lies in the creation of a new type of non-banking financial intermediary that we have called PLS banks, which are analogue to investment, or merchant banks in a conventional system. This new type of financial intermediary would be capable of mobilizing long-term resources to be invested through PLS modes of finance such as mushārakah, mudārabah, etc. The mission of these PLS banks is to provide funds for long-term investment projects by holding equity stakes or buying ijārah (leasing) ṣukūk, etc. The Islamic banking system would comprise, on the other hand, another type of financial intermediary that we have called Islamic deposit banks. These banks are analogue to the commercial banks in the conventional system, which accept deposits and create scriptural money. Because the resources of these Islamic deposit banks are essentially short dated, they are reallocated in short-term operations to provide finance for current needs. The use of fixed return modes of finance such as murābahah, salam, istithnā', ju'ālah, etc., would be in harmony with their vocation of retail banks. After three decades of Islamic banking practices, it is time to capitalize on this experience by thinking about the creation of a new type of financial intermediary capable of providing finance for long-term concerns. The use of PLS modes of finance would then be in harmony with the vocation of wholesale banks. We hope that the analysis provided in this paper provides a modest contribution to the theory of Islamic banking and finance.

Notes

- 1. This is the case for example at Herriot-Watt University, Department of International Banking, Edinburgh, Scotland, U.K., which introduced, early in 1983, the subject of Islamic banking for post-graduate students. The author participated in the elaboration of this programme under the supervision of Professor George Home.
- 2. However, it should be noted that interest received is not the sole source of revenues in conventional banking. Commissions and other transaction fees and costs for services rendered (transfers of funds, withdrawals, currency exchanges, funds safekeeping, brokerage services, etc.) contribute enormously to banks' turnover. In this respect, it should be noted that during the 1990s, commissions and other banking services (other than lending activities) generated a great part of the banking industry revenues. However, we will focus on the practice of interest, which represents the major point of divergence between conventional and Islamic banking.
- This is not an exhaustive list. Research papers and publications on Islamic banking burgeoned. Islamic banking has become an area of interest even for non-Muslim economists. International banks around the world have opened windows to offer Islamic financial services.
- 4. *Mushārakah* and *muḍārabah* are two Islamic modes of finance where both parties of the contract share in the profits in a predetermined ratio. In the case of *muḍārabah*, however, the loss is supported by the funds provider; the *muḍārib* (provider of labour) would lose his effort.
- 5. *Muzāra* 'ah and *musāqāh* apply to the agricultural sector where the product is shared by the provider of finance and the farmer on the basis of a predetermined ratio.
- 6. In effect, figures show that PLS modes of finance, namely *mushārakah* and *muḍārabah*, represent less than 20% of the Islamic banks' portfolio. 80% of Islamic banks' investments are made through mark-up modes such as *murābaḥah*, *ijārah*, *salam*, etc. See Iqbal *et al.* (1998).
- 7. We notice here that investment banks use also equity finance by holding stakes in some companies. In that case, their role is much more similar to that of shareholders or holding companies.
- 8. The rude competition between direct and indirect finance has compelled conventional banks to develop strategies that go beyond the traditional role of financial intermediary, see Plihon (1998).
- 9. In this part of the paper, the expression 'Islamic banks' applies to the two types of Islamic financial intermediaries described above, i.e. Islamic deposit banks and PLS banks. In both cases, a profit margin has to be determined whether ex-ante or expost. In either case, we are interested in the constraints that have an influence on the determination of that share of profit.
- 10. We can alter the equation by putting *p* on the numerator and *pa* on the denominator, this will not have influence on the results we get.
- 11. Standard deviation and coefficient of variation are two parameters that help in the measure of business risks linked to lending activities.

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