Prof. C. G. Harcourt:

"...ideologies…affect the topics discussed, the manner of discussion, the factors included or left out or inadequately stressed in arguments, comments, and models and attitudes shown, sympathetic or hostile,…to past and contemporary economists' works and views. "
Based upon above statement it can be argued that there are a lot of differences between Islamic and conventional banking systems both at micro and macro levels. These differences are in approach, in concepts, and in the resulting behaviour.

My presentation is based upon the following primary and secondary assertions, which are the result of 27 papers and 3 books. The last book: "Comparative Money and Banking in Capitalistic and Islamic Systems", in 856 pages, has been recognized in February 2002 in Iran as "The Economic Book of The Year". These assertions and the final conclusion may seem rather unorthodox, but they are the product of their own logical reasoning. The essence of my paper is thus nothing but one of the logical consequences, among others, of the following assertions everybody is able to derive.
Primary assertions are those, which can directly be used to reach the final conclusion of this paper. Secondary assertions are key issues to be used, one way or another, to lead one to the problems in implementing Islamic Banking. These two types of assertions, however, constitute separable sets.
Based upon the fact that the primary function of banks is to deal with "money", one cannot speak about " banking" without referring to money. Hence, it seems a "must" to understand money first. Otherwise many Miss-interpretations may arise as the result.
Interest and profit, although being clear concepts, have been subjected to many misunderstandings. To be sure, let me make them clear at the outset. Interest and profit are rewards to money and capital investment, respectively. In other words, capital investment produces profits and money produces interest. Furthermore, it has constantly and mistakenly written and quoted by some writers that the price of money is 1 (unity). One is the exchange rate of money with itself; but the price of money is interest (rate).

Some of my findings about the nature and role of profits closely correspond to those of Prof. Adrian Wood in his seminal book " A Theory of Profits ". With the abolishment of interest (as it has in Islamic school of economic thought), the LM curve loses its total validity and becomes redundant and useless.
All in all, interest is a normative concept (basically discussed in schools of economic thoughts), which can neither be proved nor refuted by use of scientific tools of analysis. It is a value judgement. In evaluating an economic system, economists are supposed to take it for granted.
Assertions:

1. In economics we are basically dealing with two inter-related concepts; one is legal (or conventional) concept and the other is real concept. To distinguish one from another, one does not need to focus on the physical features of each one. All contractual agreements like marriage, ownership, organizational hierarchy, money, interest, and the like fall into the first category; while human beings, commodities, buildings, amenity, and the like are included in the

second category. Each one of these two concepts is able to produce the other or be transformed into itself. Let us call these two properties " Completeness" and " Reflexivity", respectively. Hence, money itself being a legal concept is capable to producing another legal concept (actually its derivative) called "interest" or to produce real concept like capital equipment.

2. Money as a potential capital is a legal (conventional) concept capable of being transformed into actual capital. A simple example would be Mudarabah contract, among others, in which as soon as one person's money is legally combined with another person's labour force, the nature and the function of money is changed into capital. Given that in an Islamic framework there is no reward to money lending (i.e. interest being zero) yet capital (i.e. money's transformed version) is eligible for part of the profit earned.

3. Various modes of contract available to Islamic banks are the major source of transforming money deposits of individuals and firms into capital (or asset). Any type of financing under any modes of contract by these banks will essentially increase the value of the asset of the economy. However, some modes of contract like Musharakah and instalment sales (originated by firms) increase the productive capacity of the economy. Any positive change in the firm's asset values (rather than their capital values which is by itself a vague concept responsible for some obscurities) can be called " investment". Following this practice it is easy to calculate, rather than to estimate, the amount of investment, which has taken place in an economy during one specific year with relatively high precision. This can be done by reading the asset values off the current balance sheets, firms submit to tax authorities. By putting asset values, instead of capital, into the production function, not only it becomes more precise, but also meaningful. Firms' rate of profit is, hence, logically defined as the ratio of profit to their assets. Since the value of firms' assets is normally greater than their value of capital, therefore, the rate of profit defined as the ratio of profit to the value of capital, underestimates the true rate of profit.

4. Based upon J. M. Keynes' criticism on the classical economists inability to recognize speculative demand for money in the presence of interest (rate), it can easily be shown that interest is both necessary and sufficient condition for speculation. In other words, there is a two-way relationship between interest and speculation. It is probably for this reason that he has also recognized commodities rates of interest in addition to money rate of interest that he was much concerned about. That is, whenever a commodity is speculated upon a specific rate of interest would emerge. With the abolishment of interest, speculative motive of the demand for money, logically derived from interest, would disappear. Speculation, which necessarily entails artificial risk in any market, be it in money, bond, gold, commodities and the like, is not permissible in an Islamic setting. All of these can safely be taken under the heading of "gambling".

A corollary to the above assertion is that with the disappearance of bond market stocks are expected to be exchanged in an Islamic stock market based upon their book values. In terms of Tobin's Q this quotient is supposed to be close to unity (one). It is because in a world with perfect markets, economic value (EV) and replacement cost (RC), will coincide. This brings the quotient to unity. An implication of this is that in a world with perfect markets valuing the firm would be easy; i.e. we could read the economic value of the firm off the current balance sheet.

Risk is essentially interwoven with investment. It can be considered "natural" and hence permissible in Islam. However, impermissibility of artificial risk may be grounded upon the fact that any income received by speculator will eventually bring about excess demand for goods and services (without the speculator having any share in productive activities). This excess demand, in turn, becomes the main source of inflation.
Let me conclude discussing about this assertion by citing two statements correctly made by Prof. Gardner Ackley:

a) "Speculation - if mistaken - tends ultimately to be self -correcting in any commodity market. "
b) " ...the real cause of unemployment is speculative demand for money".
5. The natural consequence of elimination of interest, as said earlier, is the elimination of money market. Hence, the major motive to use money is for transaction purposes, which underlies the structure of ordinary demand and supply schedules for goods and services. Furthermore, based upon the logical statement that "the speculative motive is derived from money's use as an asset, as a store of value", money can no longer possess the "store of value function" in an Islamic framework.

In the absence of interest, money market and speculation, and all monetary policy tools used in conventional banking, would lose their validity in Islamic banking. Let us call the policy followed in this new setting "Financial Policy". The unique and powerful tool of financial policy is to determine the share of profit relative to that of capital for all investment projects submitted to Islamic banks. This is probably the most important role a central bank can play in an Islamic banking. There are many factors underlying the determination of this share, especially in the face of natural risk.
This share if effectively used would make bank's sources of finance properly channelled into asset building processes without worrying about money whirlpool to emerge. To determine equilibrium in this market the relative profit rate of the Islamic bank (call it financier) to that of the investor (call it the financee) can be constructed. This rate is especially useful in cases where different risks are involved. To prepare a list of different risks involved in various investment projects is another important task of a central bank.

6. Western economists have always and justifiably been worried about unnecessary expansion of money supply the volume of which is hard to control by central banks. This is due to the fact that considerable portion of it (very difficult to determine if not impossible due to uncertainties involved in interest rates) goes to money whirlpool. This is probably the reason Prof. Milton Friedman in his paper addressing the problem of stabilization policy has advocated the Required Reserve Ratio (RRR) to be raised to one hundred percent. It is clear that such a banking, if possible, would lose its own entity and merely becomes safe-deposit office. If Islamic banks are prohibited to lend on interest nonetheless different modes of contract, as mentioned earlier, are available to them to finance specific needs of both firms and individuals upon their proper requests. If constant and effective supervision is conducted on a random basis by the central bank the chances are very slim a money market, which could be outlawed, to be developed. So the kernel of Islamic banking is Profit and Loss Sharing (PLS). By preparing accurate information and making them available to the general public, central bank in Islamic banking system would be able to provide symmetric information and prevent moral hazard, to a great extent.

7. Money's inability to be a tradable entity and its production and volume being closely watched by the central bank (which is apart of the public sector), seems appropriate to be classified as "Impure Public Good" in an Islamic state. For the sake of brevity some properties of (impure) public goods which also applies to money, in this setting, will be outlined as follows:

a) Non-existence of money market.
b) Elimination of speculation.
c) Demand for it can be constructed by vertical summation of individual demands.
d) Externality of money can be derived from its capability of becoming actual capital; hence, government's (i.e. central bank's) intervention. Furthermore, it benefits each person simultaneously and is thus equally available to each person. Simultaneous benefit is not a "must" for a "thing" to be public. A good example is highway. Highways do not generate simultaneous benefit to all individuals; they are equally available to all individuals. Non-exclusion principle also applies here. Additional individuals looking for money may be added at zero marginal cost.
e) Indivisibility of money refers to its purchasing power and not its physical character.
f) Its velocity is greater than unity implying that one is not supposed to "capture" it as opposed to the case of private good whose velocity is unity implying that it can be "captured".

A caveat is in order here. Money has two distinct attributes; one at micro and the other at a macro level. At the micro level, it is part of the asset of an individual possessing it. But at macro level it cannot be added to the assets of the economy. To count money as wealth (or asset) of a nation will lead one to commit both fallacy of composition and double counting problem. This property of money may be the only one that makes it distinct from other "public goods". This could probably be the consequence of money being the medium of exchange.

8. Removal of interest and all its derivatives (i.e. lending on interest, money market and speculation) from an economy will lead Islamic banks to finance investment projects through PLS. The criteria to be used by such banks are both profitability and feasibility of the projects. Hence, projects compete with each other on the bases of their Internal Rates of Return (IRR). However, the criterion used by a potential investor is IRR of a specific project. The role of the central bank in determining arrays of IRRs for different sectors and various activities is highly valuable in channelling resources into proper projects.

Ranking IRRs in descending order, an investor would first choose the project with the highest IRR. However, the rule, which seems appropriate in choosing the amount to be invested, is "cut-off rate". The maximum amount one investor is willing to invest in a project is determined by the IRR of the next project whose value is almost equivalent to the chosen project, without it being "the opportunity cost" of capital.

Cut-off rate, seems to me, has long been mistakenly interpreted as opportunity cost. In investment decision making most of the times we are ~ dealing with the cut-off rate concept (even in an interest based economic system) but very rarely with opportunity cost. In capitalistic system, rate of interest is justifiably used as the opportunity cost of capital. It is well justified that interest rate is essentially determined independently from the rate of return in the real sector of the economy. However in the absence of interest, projects compete with each other to obtain finance from Islamic bank on the basis of their IRR because there is no other alternative. Comparison among various IRRs brings about the role of cut-off rate without anyone of them becoming opportunity cost of another project. Cut-off rate functions as a signal to show an investor up to what point he should invest and where to stop and select another project. Interdependencies among various investment projects produce cut-off rate the special character and function of which differ from those of interest rate.

The reason, seems to the author, that we often fail to distinguish between these two concepts is the interdependence condition. Furthermore, choosing one, IRR of one project as the opportunity cost of another project in the same activity (on the basis of the principle of next best alternative) will lead one to a whole range of so-called opportunity cost list, none of which have possibly the same value. Hence, different cost calculations in the same activity. Whereas cut-off rates could be numerous for many producers in the same activity without making them run into any problem.
In the absence of interest rate there is nothing to compare IRR of an investment project with. Therefore, we can conclude that in an Islamic economy opportunity cost of capital is zero. The foregoing statements were justified on the basis of economic logic; accountants do not seem to have any reason to believe otherwise. One final remark can be added to above statements. Opportunity cost of capital can also be used as the cut-off rate but the reverse is not true.

After their feasibility and profitability have been confirmed by Islamic bank's qualified personnel, projects become eligible to obtain finance; furthermore, the projects themselves become collateral for finance. Central bank's role in providing guidelines about both of these two aspects will certainly be appreciated by Islamic banks.

As long as there are unemployed factors of production suitable to be utilized in investment, projects have to be financed by Islamic banks no matter how much money is required to finance them. This gives appropriate apparatus to materialize the assertion made by S. M. Bagher Sadr when he says; "Tools of production are treated servants in Islam and man the master". It is the right of labour, in Islam, not to be kept unemployed.
In the final analysis, every piece of bank note coming out of an Islamic bank in response to financing an investment project can be called Certificate of Asset Building (C.A.B.). These C.A.B.'s are appropriate both to production and household sectors.

9. In dealing with various modes of contract, Islamic banks finance profitable and appropriate projects. Appropriateness of projects are expected to be determined by the central bank; however, to determine which projects are more profitable to finance is the task of each individual Islamic bank. Central bank's task is to instruct Islamic banks to give priority to those projects, which are more compatible with the country's economic plan (be it either explicit and written or unwritten and implicit).

Islamic modes of contract can be classified into two broad categories:

1. Those with variable return and (2) with fixed return. Musharakah and Mudarabah contracts fall into the first classification and Instalment Sales, Hire-Purchase, Joalah, and the like into the second one. Musharakah (i.e., PLS) has well and rightly been recognized as the core of Islamic

banking. In Mudarabah contract labour has no responsibility as to any loss that may occur provided that it had done its best. The second class of contracts may be defined as auxiliary contracts, which could be used in conjunction with and after the first category has been utilized. Risk is involved with the first type but the second is risk less which is more appealing to Islamic banks. To reduce or even to eliminate the burden of risk from the shoulders of investors it requires another paper, which IS beyond the scope of this presentation.

However, to make sure that the guideline controlling the complementarity of the second type contracts has properly been observed, the Islamic central bank is supposed to keep close eye on the contracts signed by each individual Islamic bank. I skip going into the mechanism of how the burden of risk can be lessened or even eliminated; to determine the degree of risk in different sectors and regions throughout the country. This is another crucial task of an Islamic central bank. This will facilitate the task of Islamic banks in determining the relative share of their own profit vis-à-vis that of the investor. This task not only is beyond the capabilities of an individual Islamic bank, but also provides a uniform procedure for all Islamic banks for various sectors, locating in different regions of the country.

10. Whether an Islamic bank uses the variable or fixed- rate-of-return contract, accountants are very keen about costs that are supposed to be deducted from, total revenue. Accountants who are responsible to approve and submit both balance sheets and profit and loss statements to tax authorities do not accept anything under the heading of cost from neither of the two types of contracts provided that they have been financed by Islamic banks. It is a fact that economists use these two valuable documents for economic analysis and their own interpretations without being able to adjust them on the basis of their own interpretation of cost. Nevertheless, neither of the two professions (accounting and economics) can deny that the Islamic banks' share of profit paid by investors (i.e. financees) is in fact sort of dividend which is essentially determined after all costs have been subtracted from revenue and hence can no longer be considered cost.

To sum up the role of a central bank in an Islamic state, we come up with six different crucial functions to be performed at different levels of rigorousness:

a) Active participation in the process of preparing economic development plan.
b) Informing individual Islamic banks about the priorities of investment projects as outlined in the country's economic development plan at different regions and various sectors.
c) Calculating and submitting to Islamic banks the profit shares of banks relative to those of capital for different projects at various regions and sectors.
d) Calculating and submitting to Islamic banks the value of risk involved in different projects, different regions, and various sectors of the country.
e) Constant inspection and supervision to make sure that projects have properly been financed relative to the priorities and the value of risks.
Note: To do all above functions effectively an Islamic central bank is supposed to be well equipped with highly qualified personnel in portfolio and risk management and project appraisal. This is also a must for each individual Islamic bank.
f) After making sure that Islamic banks have concisely followed the central bank's instructions they can safely be allowed to gradually reduce RRR down to zero.

Let me admit that monitoring cost in Islamic banking compared to the conventional banking is relatively high. However, potential benefits as to its effects on reducing unemployment and keeping prices constant over-shadow the cost. Most important, distribution of income and wealth is expected to be more equitable than otherwise. Such a scheme of distribution guarantees sustained economic development. The role of an Islamic central bank in a uniform distribution of information and prevention of moral hazard cannot be overstated.
Whether it is the Islamic banking or the realization of Keynes' expectation to reach full employment, it is yet to be seen. In closing my presentation, I would like to cite what Keynes has to say about this whole issue: "If I am right in supposing it to be comparatively easy to make capital goods so abundant that the marginal efficiency of capital is zero, this may be the most sensible way of gradually getting rid of many of the objectionable features of capitalism."

Nonetheless it seems that these two models, in the final analysis, converge. He, in this respect, admits that "...it is to our best advantage to reduce the rate of interest to that point relatively to the schedule of the marginal efficiency of the capital at which there is full employment."