

## The Role of the Stock Exchange in An Islamic Economy

**MOKHTAR M. METWALLY**  
*Professor in the Department of Economics,  
King Saud University, Riyadh, Saudi Arabia.*

### **Introduction**

In an Islamic economy where interest bearing loans are prohibited and where direct participation in business enterprise, with its attendant risks and profit sharing, is encouraged, the existence of a well functioning Stock Exchange is very important. It would allow for the mobilization of savings for investment and provide means for liquidity to individual shareholders. However, existing Stock Exchanges in non-Islamic economies have many drawbacks. They generate practices such as speculation and fluctuations in share prices which are not related to the economic performance of enterprises. These practices are inconsistent with the teachings of Islam.<sup>(1)</sup>

The aim of the paper is to outline a system which would establish a Stock Exchange consistent with the teachings of Islam. The paper is divided into two Sections. In Section I, we discuss the basic economic roles of the Stock Exchange and its main drawback in non-Islamic economies. In section II, we out line a proposal for Stock Exchange in an Islamic economy with its theoretical and practical implications.

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(1) The Qur'an says "they question Thee about strong drink - and games of chance. Say: In both is great sin, and (some) utility for men; but (the) sin of them is greater than (their) usefulness" (1:219). The Qur'an says "O ye who believe! Strong drink and games of chance and idols and divining arrows are only an infamy of Satan's handiwork. Leave it aside in order that ye may succeed" (5:90). It must also be realized that according to Islam, an exchange contract is void unless the intention of the buyer is to buy and of the seller to sell and that no one sells what he does not have, that no one should deserve a return without bearing a corresponding obligation.

### **The Roles of a Stock Exchange and Its Drawbacks in a Non-Islamic Economy**

The basic economic roles of the Stock Exchange are:

- (a) to allow savers to participate fully in the fortunes of business enterprise;
- (b) to enable holders of shares and debts to obtain liquidity by selling their shares and bonds to business enterprises on the Stock Market;
- (c) to allow business enterprises to raise external finance in order to expand the economic activities of their enterprise;
- (d) to allow business enterprises to separate business and economic operations from financial activities.

The actual operations of the Stock Exchange in non-Islamic economies have been criticized for failing to fulfil fundamental economic functions and for allowing activities not compatible with social good to emerge in Stock Exchange trading. Two important criticisms have been made by J.M. Keynes; he has pointed out that investment in certain kinds of projects are governed by the expectations of share market dealers and not by those of entrepreneurs, and that speculation in shares may lead to misallocation of resources.

Central to Keynes' criticisms is the recognition that the Stock Exchange allows for revaluation of investment at regular intervals, so that individuals may revise their willingness to hold stock in a particular enterprise. Without the institution of the Stock Exchange it would not be possible to have this revaluation. Thus the Stock Exchange provides the means for making illiquid capital investment liquid for individuals although the illiquidity for the economy as a whole remains.

The major purpose of the Stock Exchange is to facilitate the exchange of claims on existing business enterprise, but in doing this the Stock Exchange makes a significant impact on current investment. This is due to two reasons: (a) it is not worthwhile to embark on a new enterprise if a similar one can be acquired by purchasing shares on the Stock Exchange,

(b) it may be worthwhile to start a new company not because it offers long term economic advantages but because an immediate gain can be reaped by floating the company on the Stock Exchange and selling shares at inflated prices.

These were the circumstances to which Keynes referred to as follows:

Thus, certain classes of investment are governed by the average expectations of those who deal on the Stock Exchange as revealed in the price of shares, rather than by the genuine expectations of the professional entrepreneur.<sup>(2)</sup>

The Stock Exchange provides opportunities for gains to be made by profiting from fluctuations in the prices of shares which are not necessarily related to the economic performance of the company.

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(2) J.M. Keynes, *The General Theory of Employment, Interest and Money*, New York, Harcourt, Brace and World, 1936, p.151.

Keynes has defined 'speculation' as "the activity of forecasting the psychology of the market" and has contrasted this with the activity of "enterprise" defined as "the activity of forecasting the prospective yields of assets over their whole life." Keynes suggested that as the size of the Stock Exchange and other financial markets increases the probability of speculation will increase. Keynes further suggested that this was liable to lead to misallocation of resources:

*Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done.<sup>(3)</sup>*

These factors are likely to pose serious problems in a non-Islamic economy, in an Islamic economy they are totally unacceptable. So our proposal for a Stock Exchange in an Islamic economy will involve procedures to avoid their emergence.

## II Functions, Structure and Performance of a Stock Exchange in an Islamic Economy

### *Functions of the Stock Exchange in an Islamic Economy*

The basic role of the Stock Exchange in an Islamic economy is to facilitate the flow of funds from surplus to deficit units; deficit units in this context are business enterprises which wish to raise new funds by issuing equity capital. The Stock Exchange is organised to provide two conceptually separated but interrelated markets; these are:

- (1) the new issues market in which newly created shares are offered for sale; and
- (2) the secondary market which enables asset holders to trade in previously created shares.

The function of the new issues market is to enable savers to subscribe funds to business enterprises to allow for an expansion of their activities. This is the most important economic role for the Stock Exchange because it mobilizes savings for investment and assists in ensuring the maintenance of full employment.

Thus the Stock Exchanges in an Islamic economy would perform the following functions:

- (1) enable savers to participate fully in the ownership of business enterprise; sharing its profits and risks;
- (2) enable shareholders to obtain liquidity by selling their shares according to the rules of the Stock Exchange;
- (3) allow business enterprises to raise external capital for establishing and expanding their lines of production;

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(3) op. cit, p.159.

(4) divorce business operations of the enterprise from short term fluctuations in share prices which are major characteristics of non-Islamic stock markets;

(5) allow investment in the economy to be guided by the performance of business enterprise as reflected in share prices.

### The Structure of the Stock Exchange in an Islamic Economy

To achieve these aims it is necessary that companies issue only one type of share, i.e. a share which carries profit as a compensation for investment and risk taking. No interest-bearing bonds are to be transacted on the Stock Exchange of the Islamic economy. Hence, the Keynesian type of speculation based on the relationship between current and (expected) future rate of interest would not exist in an Islamic economy. And in order to achieve a greater degree of stability the following features would have to be incorporated in the structure of an Islamic Stock Exchange:

- (a) all shares must be bought and sold on the Stock Exchange;<sup>(4)</sup>
- (b) the Stock Exchange would provide trading posts where shares could be traded through brokers;
- (c) all companies with shares tradeable on the Stock Exchange would be required to provide information on their profit and loss accounts and balance sheets to the Management Committee of the Stock Exchange at intervals of no more than three months;
- (d) the Management Committee would determine for each Company at intervals of no more than three months a Maximum Share Price (MSP);
- (e) shares would not be traded at a price *higher* than the MSP;
- (f) shares may be traded at a price *lower* than the MSP;
- (g) the MSP would be determined in accordance with the following formula;<sup>(5)</sup>

$$\text{MSP} = \frac{\text{Total Net Worth of company}}{\text{Total number of issued shares}} \quad (1)$$

The Management Committee would have to ensure that all companies dealing in the Stock Exchange follow standard accounting practices with respect to depreciation, inventory, etc.;

- (h) trading in shares would take place only in a period of one week, the trading period, after the determination of an MSP price;
- (i) Companies would issue new shares only during the trading period and only at the MSP price.

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(4) It is assumed that in an Islamic economy, the Muslim believers will not sell in the black market to make personal gains.

(5) The issue of new shares would not happen very frequently, hence the number (but not necessarily the ownership) of shares will be constant in the short run. Also, when new capital is raised, the total net worth of the company must increase unless the newly obtained capital was not efficiently used. The MSP, therefore, reflects the performances of the company.

This proposal meets the requirements of a Stock Exchange in an Islamic Economy: it allows trading in shares so that individual shareholders may relinquish their holdings and gain liquidity but also requires shareholders to maintain some commitment to the company by providing a period (of at least three months) during which they are unable to sell their shares.

Speculation in share prices is made difficult by the provision that shares can not be traded frequently and by the provision of an MSP. Also the Keynesian type speculation based on the relationship between current and (expected) future rate of interest would not exist in an Islamic economy.

### **Economic Operation of the Stock Exchange**

To provide a benchmark for analysis, we start with a demand and supply analysis of the Stock Exchange in a non-Islamic economy. The demand for shares can be written

$$D = D(p, r) \quad (2)$$

when  $p$  = current price of shares  
 $r$  = rate of interest

The supply relation for shares can be written

$$S = S(p, r) \quad (3)$$

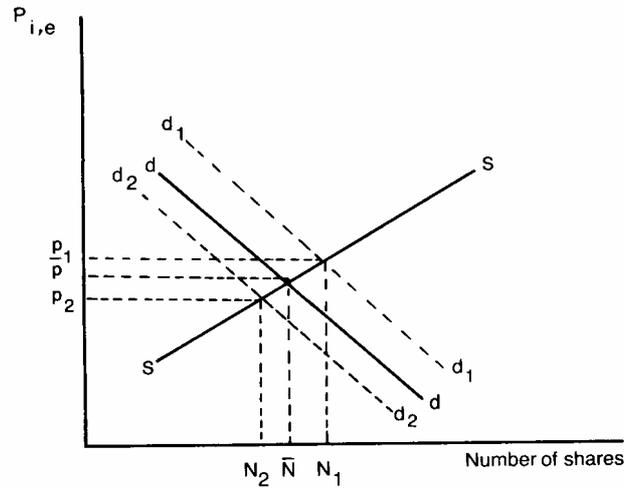
Where  $p$  and  $r$  defined as before

The demand relationship embodies the contribution of Keynes discussed previously in which demand for shares depends on expectations of future price movements of shares as well as the current price. While there is no general theory of expectations formation available, it is likely that expectations about future prices will be volatile which will give rise to the divorce between share prices and the economic performance of business enterprise.

The supply relationship suggests that shareholders will sell share if the current interest rate is low. Since it would be expected that interest rate would rise and hence share price will fall. The reverse mechanism takes place with the buyers.

The share market in a non-Islamic economy can be represented in Figure I.

FIGURE I



Equilibrium price and number of shares are determined by the intersection of the demand and supply curves,  $dd$  and  $ss$  to give  $p$  and  $N$ . Suppose the demand curve shifts as a result of a change in expectations to  $d_1 d_1$  (or  $d_2 d_2$ ) then equilibrium prices and quantities become  $P_1$  and  $N_1$  ( $p_2$  and  $N_2$ ).

The volatility of share prices can be increased by undesirable practices in the share market such as:

- (1) influencing expectations by providing false or incomplete information;
- (2) restricting the issue of new shares;
- (3) creating false markets by selling short;

If any of these practices occur, then the market determined share price will have no relationship to the economic performance of the company.

In an Islamic economy the operations of the share market would be quite different. The demand relationship for shares could be expressed as

$$D = D(p) \quad (4)$$

and the supply relationship

$$S = S(p, p) \quad (5)$$

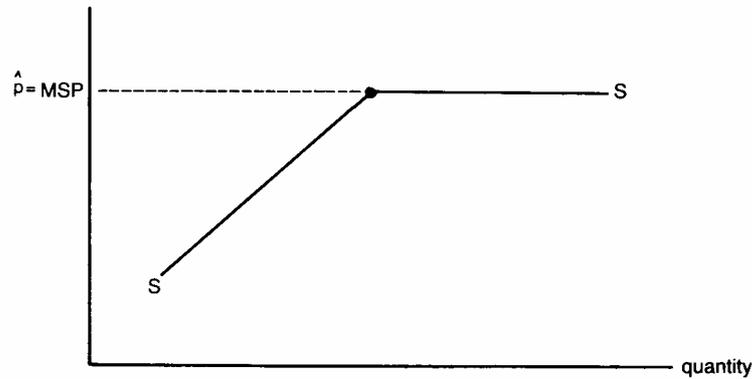
where

$$\begin{aligned} p & \text{ current price of share} \\ p & = \text{MSP} \end{aligned}$$

To examine the operations of the stock exchange in an Islamic economy, we first introduce a concept of "kinked supply curve". This is shown in Figure II. The infinite-elastic part of the curve implies that  $P$  will not be affected by the quantity supplied. Hence the sellers would not gain from withholding sales on the expectations that there will be a rise in price. The maximum they can get is  $P$ .

FIGURE II

## Supply of shares on a Stock Exchange in an Islamic Economy



This newly-developed kinked supply curve has two economic implications:

- (i) There is a maximum price that sellers of shares can obtain. This is the price  $p$  which is an extension of the infinitely-elastic part of the SS curve. This maximum price is the price determined according to equation (1) and declared by the company at the appropriate time period. It follows that there is a maximum limit to what sellers can gain by playing the market; it does not matter how they try to influence the quantity supplied. This in itself limits the desire and the effect of speculation on the Stock Exchange of the Islamic market.

For sellers know that the maximum they can gain is determined by the *performance* of their companies and not by outside market forces.

- (ii) Muslim sellers may, if they wish, sell at a price less than  $p$  (MSP) if they desire liquidity. Their supply would be determined by the portion of the SS curve to the left of the "kink".

What distinguishes the Stock Exchange in an Islamic economy from those in non-Islamic economies is that in the first type of economy the performance of share prices is directly and mostly related to the performance of the company issuing the particular share. Thus we may be able to distinguish between two types of shifts in the supply curve of shares on the Stock Exchange in an Islamic economy: (a) shifts due to changes in performance of the company and (b) shifts due to other factors e.g. a desire for more liquidity or a change in the portfolio. The first type of shift results in a shifting of the whole SS curve; up wards (indicating better performance of the company) and downwards (indicating a slack in the performance of the company). This type of shift is shown in Figure III. An upward shift indicates a rise in  $p$  (MSP) and a downward shift indicates a fall in  $p$  (MSP).

FIGURE III

Shifts in the supply of shares due to changes in the performance of the issuing company

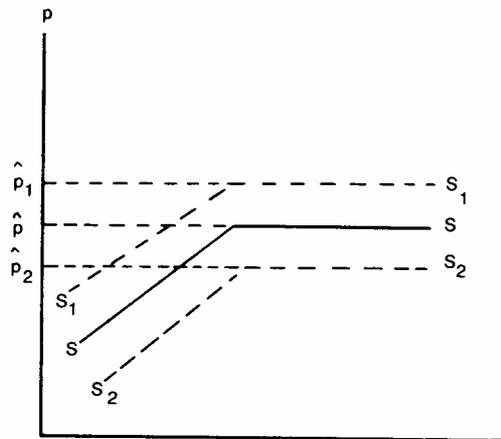
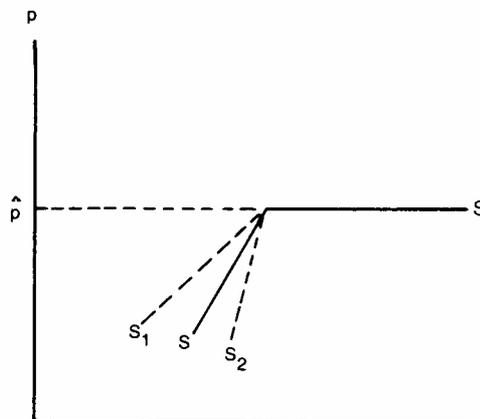


FIGURE IV

Shifts in the supply of shares due to factors other than the performance of the issuing company

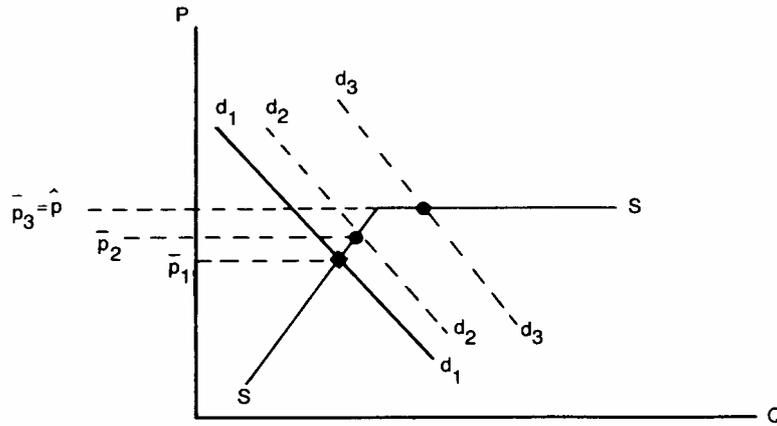


Shifts in the supply curve due to factors other than the performance of the issuing company can only affect that portion of the kinked,  $SS$  curve which lies to the left of the kink as shown in Figure IV. Thus a desire for more liquidity shifts the curve to  $SS_2$  and a desire for less liquidity (i.e. an increase in the propensity to hold the shares for longer time periods) shifts the curve to  $SS_1$ . These shifts have no effect on the maximum price  $p$ .

Equilibrium takes place at the point of intersection of the demand curve for shares and the kinked supply curve. This is shown diagrammatically in Figure V. It should be noted that this equilibrium is a comparative static one.

FIGURE V

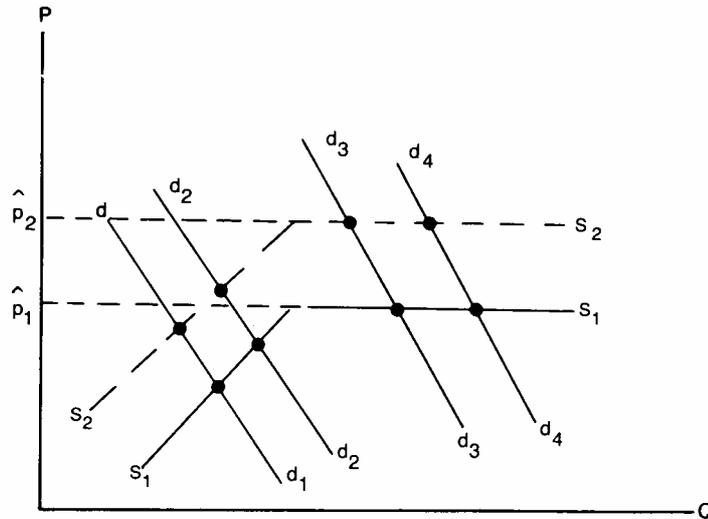
**Determination of the market prices of shares on the Stock Exchange of an Islamic economy**



If  $d_1$  was the demand curve and  $SS$  the supply curve, the market price is determined at  $P_1$ . An increase in demand, with supply left unchanged, leads to an increase in the market price. This continues as long as the demand curve intersects the supply curve to the left of the "kink". An intersection between the demand curve and the supply curve at the point of the kink or to the right of that point results in a market price which is equal to the maximum (declared) share price  $MSP (p)$ . Hence further shifts of the demand curve to the right of the point of kink would have no effect on the market price of shares. These prices could only rise if the performance of the company improves, as shown in Figure VI.

FIGURE VI

**Equilibrium on the Stock Exchange of an Islamic economy with improvements in company's performance**



### Conclusions

This paper examined the functions, structure and performance of the Stock Exchange in an Islamic economy. It shows that in such an economy, a Stock Exchange could perform a very valuable role. However the structure of such a market would be entirely different from that of the Stock Exchange in non-Islamic economies. Moreover, the performance of a Stock Exchange in an Islamic economy would vary from that of the corresponding markets in non-Islamic economies.

The main contributions of this study may be summed up in the following:

- (1) It is possible to have a Stock Exchange in an interest-free economy based on Islamic teachings.
- (2) Keynesian type speculation can be avoided given the right structure of the Stock Exchange.
- (3) The proposed structure of the Stock Exchange avoids excessive fluctuations in share prices and yet maintains a high degree of liquidity and financial efficiency.
- (4) The performance of the Stock Exchange in an Islamic economy would be linked directly and mostly to the performance of the companies which issue the shares.
- (5) A kinked supply curve of shares is introduced as a tool of market analysis.
- (6) Although the Islamic economy is basically a free-market economy, the Islamic authorities may interfere and regulate the market in cases where Islamic principles may be violated (e.g. cases of monopoly and gambling). The imposition of a maximum price could be one of the means by which Islamic authorities could uphold the Islamic principles.