

## CHAPTER 19

# Discovering the roots of conventional and Islamic finance

### 19.1 Introduction

Islamic finance has experienced remarkable growth in the last few decades and has been considered, especially after the global financial crisis, as a possible alternative to the conventional system. Every system, including a financial one, consists of several subsystems and sectors. For example, a bank belongs to the banking industry which belongs to the financial sector which belongs to the financial subsystem which belongs to the larger economic system which, finally, belongs to an overall socio-political-economic system. The Islamic finance industry, as embodied today, is the result of the “market failure” of the conventional financial system in meeting the demand for Shari’a-compliant financial products. In other words, the conventional financial subsystem gave birth to the present Islamic finance industry.

While writings on Islamic finance and the development of an Islamic financial system were extant, the discourse really started to take shape towards the end of the 1960s and beginning of the 1970s. Two approaches were taken. On one side, Muslim scholars focused not only on the elimination of *riba*-based (interest rate-based) contracts prevailing in the conventional financial system, but also emphasised and urged development and implementation of risk-sharing contracts. On the other side, practitioners – equipped mostly with a conventional finance background – were interested in developing ways and means of finance that, while being Shari’a-compliant, would be familiar to and accepted by market players in conventional finance. While the former emphasised Profit and Loss Sharing (PLS), the latter focused on traditional methods of conventional finance centred on risk transfer and risk shifting. In doing so, all financial instruments of conventional finance became subject to replicating, retrofitting and reverse engineering for Shari’a compatibility.

This chapter looks at the epistemology of both the Islamic and conventional financial system. Simply stated, epistemology deals with the question of what we know about a phenomenon and how we know it. In the words of Hendricks (2006)<sup>1</sup> “[t]he systematic and detailed study of knowledge, its criteria of acquisition and its limits and modes of justification is known as epistemology”. This chapter argues that there are two ideal financial systems based on risk sharing, conventional and Islamic, and one actual conventional system focused on risk transfer. The chapter then proceeds to discuss the epistemology and the main characteristics of each of the two ideal systems. In addition, the chapter discusses the implications of risk and uncertainty on everyday activities. Finally, an attempt is made to stress on needs for developing more risk sharing instruments.

### 19.2 The conventional financial system

#### 19.2.1 Epistemology of the conventional financial system

The epistemology of the conventional economy is usually traced to Adam Smith and his book *The Wealth of Nations*. What has been ignored until recently, however, is the fact that, from an epistemological point of view, Smith’s vision of the economy is embedded in his vision of a moral-ethical system that gives rise to the economy envisioned in *The Wealth of Nations*. That system was well-described in Smith’s book: *The Theory of Moral Sentiments* which preceded his *Wealth of Nation* by a decade and half.

Whereas conventional economics considered Smith’s

<sup>1</sup> Hendricks, V. F. (2006). *Mainstream and Formal Epistemology*. Cambridge: Cambridge University Press, p.1

notion of an “invisible hand” as a coordinator of independent decisions of market participants, in both *The Theory of Moral Sentiments* and in *The Wealth of Nations* the metaphor refers to the design of the Supreme Creator “who arranged the connecting principles such that the actions of all those seeking their own advantage could produce the most efficient allocation of resources, and thus the greatest possible wealth for the nation. This is indeed a benevolent designer”<sup>2</sup>. The major contribution of Smith in *The Theory of Moral Sentiments* is to envision a coherent moral-ethical social system consistent with the Supreme Creator’s design and how each member of society would enforce ethical positions. Recognition of human frailties led Smith to argue the need for an organic co-evolution of individual and society in a stage-wise process of accumulation of an ethical system of values from one generation to next. While it is possible for any given society to move forward or stagnate and even regress, the benevolence of the invisible hand of the “Author of nature” guides the totality of humanity in its movement toward the ideal human society. Compliance with and commitment to a set of values – virtues of prudence, concern for other people, justice and benevolence – would ensure social order and cohesion.

### 19.2.2 An ideal conventional financial system

It was only in the second half of the last century that attempts were made to present a particular conception of Smith’s vision of the economy. Two such attempts were the works of Arrow and Debreu (1954)<sup>3</sup> and Arrow and Hahn (1971)<sup>4</sup>.

The main focus of Arrow-Debreu’s study was on Smith’s idea of a decentralised market economy and finding the best mechanism for risk sharing in an economy. Accordingly, Arrow contributed immensely to the question of risk allocation in a competitive economy by deducing that optima allocation requires that everyone carries the amount of risk he/she can bear. Two key assumptions of this work were: (i) complete contracts – possibility to design contracts such that all contingencies were covered; and (ii) complete markets – there is a market for every conceivable risk. Crucially, all future payoffs were contingent on specific outcomes. This model did not include fixed, predetermined rates of interest as payoffs to debt contracts.

Subsequently, Arrow made it clear that “the process of exchange requires or at least is greatly facilitated by the presence of several ... virtues (not only truth, but also trust, loyalty and justice in future dealings ... The virtue of truthfulness in fact contributes in a very significant way to the efficiency of the economic system ... ethical behaviour can be regarded as socially desirable institution which facilitates the achievement of economic efficiency in a broad sense”<sup>5</sup>. For example, if the institution of trust is strong in an economy, the universe of complete contracts can be replicated by simple contracts entered into by parties stipulating that terms and conditions of the contracts would be revised as contingencies arise. Arrow himself was to place emphasis on trust as the lubricant of the economy<sup>6</sup>.

A numbers of contemporary scholars, including Amartya Sen, consider the contemporary understanding of Smith’s vision as distorted and an inadequate representation of the latter’s works.<sup>7</sup> After a careful reading of *The Theory of Moral Sentiments*, three observations can be highlighted. First, the conception of moral-ethical values envisioned by Smith for the economy has been ignored by the economics profession. The Smith of contemporary economics is the author of the self-interest motive that is the basis of utility and profit maximisation at any cost to the society, including the impoverishment and exploitation of fellow human beings. Second, Smith makes clear in his *Theory of Moral Sentiments* that compliance with the rules prescribed by the Creator and with the rules of the market was essential to his vision. Third, it is also clear that Smith considers the internalisation of rules – being consciously aware of ever-presence of the Creator and acting accordingly - as crucial to all human conduct, including economics.

Smith, hence, succinctly and clearly shares some of the fundamental institutional scaffolding of Islam: belief in the One and Only Creator; belief in accountability of the Day of Judgement; belief in the necessity of compliance with the rules prescribed by the Creator; and belief that justice is achieved with full compliance of rules. To paraphrase Sen: no space need be made artificially for justice and fairness; it already exists in the rules prescribed by the Law Giver.

### 19.2.3 From Ideal to actual: conventional finance

Contemporary ideas attributed to Smith are an abridged edition of the Smithian story while “much of the rest of his tale has been forgotten”<sup>8</sup>. It can be argued, as Arrow (1971) himself seems to imply, that the “rest of” Smith’s “tale” would have been his vision of the institutional infrastructure (rules of behaviour) that is envisioned in *The Theory of Moral Sentiments* and, as such, abstracting from them would be unlikely to change the outcome of the mathematical analysis of Arrow-Debreu and/or Arrow-Hahn. Furthermore, had actual finance developed along the trajectory discernible from these works, i.e., steps taken toward completion of markets and of contracts, keeping in mind the overall institutional framework for the economy as envisioned by Adam Smith, the result might have been emergence of conventional finance different from the present structure. That system would instead be dominated by contingent, equity, risk-sharing financial instruments.

Perhaps the most influential factor in derailing that trajectory is the existence of a fixed, predetermined rate of interest for which there has never been a rigorous theoretical explanation. All, so called, theories of interest from the classical economists to contemporary finance theories explain interest rate as the price that brings demand for and supply of finance into equilibrium. This clearly implies that interest rates emerge only after demand and supply forces have interacted in the market and not *ex ante* prices. In fact, in some theoretical models there is no room for a fixed, *ex ante* predetermined rate of interest. For example, introducing such a price into the Walras or Arrow-Debreu-Hahn models of general equilibrium (GE) leads to the collapse of the

<sup>2</sup> Evensky, J. (1993). Ethics and the invisible hand. *Journal of Economic Perspectives*, 7(2), 197-2005.

<sup>3</sup> Arrow, K. J., & Debreu, G. (1954). The Existence of an Equilibrium for a Competitive Economy. *Econometrica* 22(3), 265-290.

<sup>4</sup> Arrow, K. J., & Hahn, F. (1971). *General Competitive Analysis*. San Francisco: Holder Day.

<sup>5</sup> Arrow, K. J. (1971). *Essays in the Theory of Risk-Bearing*. Chicago: Markham Publishing Company. Pp 345 -346

<sup>6</sup> Arrow, K. J. (1971)

<sup>7</sup> Sen, A. K. (1977). *Rational Fools: A Critique of the Behavioral Foundations of Economic Philosophy and Public Affairs*, 6(4), 317-344; Sen, A. K. (1987). *On Ethics and Economics*. Oxford: Blackwell.

<sup>8</sup> Evensky, J. (1987). *The Two Voices of Adam Smith*. *History of Political Economy*, 19(3), 447-468; Evensky (1993).

<sup>9</sup> Cowen, T. (1983). *The Rate of Return in General Equilibrium: A Critique*. *Journal of Post Keynesian Economics*, 5(Summer), 608-617.

models as they become over-determined<sup>9</sup>.

Even though no satisfactory theory of a positive, *ex ante* fixed rate of interest exists, all financial theory development post Arrow-Debreu-Hahn assumed its existence in the form of a risk-free asset, usually treasury bills, as a benchmark against which the rates of return of all other assets, importantly equity returns, were measured. These include theories such as the Capital Asset Pricing Model (CAPM), Modern Portfolio Theory (MPT), and the Black-Scholes option pricing formula for valuing options contracts and assessing risk. For all practical purposes, the assumption of a risk-free rate introduced an artificial floor into the pricing structure of the real sector of the economy, and into all financial decisions. It can be argued that it is the existence of this exogenously imposed rate on the economy that transformed the Arrow-Debreu vision of a risk-sharing economy and finance. The resulting system became one focused on transferring or shifting of risk rather than sharing it. Such a system needed strong regulation to limit the extent of both. However, further developments in finance theory provided analytic rationale for an ideologically aggressive deregulation.<sup>10</sup> These developments coupled with the high magnitude of leverage available from the money-credit creation process, characteristic of a fractional reserve banking system, represented an explosive mix that reduced the vision of Adam Smith to the rubble of post crisis 2007-2008. Arrow's vision of an economy in which risk was shared was first transformed into an economy in which the focus became risk transfer but which quickly transformed into one in which risks were shifted, ultimately, to tax payers.

## 19.3 The Islamic finance system

### 19.3.1 Epistemology of an ideal Islamic finance system

The fountainhead of all Islamic thought is the Qur'an. Whatever the theory of Islamic knowledge may be, any epistemology, including that of finance, must find its roots in the Qur'an.

The starting point of this discussion is therefore Verse 275 of Chapter 2 of the Qur'an, particularly the part of the Verse that declares the contract of al-bay' permissible and that of al-riba non-permissible. Arguably, these few words can be considered as constituting the organising principle – the fundamental theorem as it were – of the Islamic economy. Most translations of the Qur'an, render al-bay' as "commerce" or "trade". They also translate "at-tijarah" as "commerce" or "trade". Consulting major lexicons of Arabic<sup>11</sup> reveals that there is substantive difference between al-bay' and at-tijarah. Relying on various verses of the Qur'an (e.g. verse 254: chapter 2; 111:2; 29-30:35; 10-13:61) these sources suggest that trade contracts (at-tijarah) are entered into in the expectation of profit (ribh). On the other hand, al-bay' contracts are defined as "mubadilah al-mal

bi al-mal" – exchange of property with property. In contemporary economics it would be rendered as exchange of property rights claim. These sources also suggest a further difference in that those who enter into a contract of exchange expect gains but are cognizant of probability of loss (khisarah).

It is worth noting also that all Islamic contractual forms, except spot exchange, involve time. From an economic point of view, time transactions involve a commitment to do something today in exchange for a promise of a commitment to do something in the future. All transactions involving time are subject to uncertainty and uncertainty involves risk. Risk exists whenever more than one outcome is possible.

Second, it may appear that spot exchange or cash sale involves no risk. But price changes post-completion of spot exchange are not known. The two sides of a spot exchange share this risk. Furthermore, there are pre-exchange risks of production and transportation that are shared through the exchange.

Third, it appears that the reason for the prohibition of the contract of al-riba is the fact that opportunities for risk sharing are non-existence in this contract. It may be argued that the creditor does take risk – the risk of default. But it is not risk taking per se that makes a transaction permissible. A gambler takes risk as well but gambling is haram. Instead what seems to matter is opportunity for risk sharing. Al-riba is a contract of risk transfer. As Keynes emphasised in his writings, if the interest rate did not exist, the financier would have to share in all the risks that the entrepreneur faces in producing, marketing and selling a product. But by decoupling his future gains, by loaning money today for more money in the future, the financier transfers all risks to the entrepreneur.

Fourth, it is clear that by declaring the contract of al-riba non-permissible, the Qur'an intends for humans to shift their focus to risk-sharing contracts of exchange. In other words, it can be inferred that by mandating al-bay', Allah (swt) ordained risk-sharing in all exchange activities.

It appears – and Allah knows best – that it can be inferred from the above discussion that there are two types of contracts involving time;

- (i) contracts over time (or on spot) involving trade in which there is expectation of gain (ribh); and
- (ii) contracts over time involving exchange in which there is expectation of gain but also the probability of loss (khisarah).

Given the above, major economic implications follow. First, as the definition of al-bay' indicates, it is a contract of exchange of property. This means that the parties to exchange must have property rights over the subjects of contract antecedent to the exchange. Second, parties must have the freedom not only to produce what they wish but also with whom they wish to exchange. Third, parties must have freedom to contract. Fourth, there must be means of enforcing

<sup>10</sup> One was the Modigliani-Miller Theorem of neutrality of capital structure of firms. Another was the development of the Efficient Market Hypothesis (EMH) that claimed that in an economy similar to that of Arrow-Debreu, prices prevailing in the market contained all relevant information such that there would be no opportunity for arbitrage.

<sup>11</sup> See among others Ibn Mandhooir. (1984). *Lisan Al-Arab*. Qum, Iran: Nashr Adab; Lane, E. W. (2003). *An Arabic-English Lexicon*. Lahore: Suhail Academy; Al-Isfahani, A.R. (1992). *Mufradat Alfaz Al-Qur'an*. Damascus: Dar Al-Qalam; Al-Mustafaoui, S. H. (1995). *Al-Tahqiq Fi Kalamat Al-Qur'an Al-Karim*. Tehran: Ministry of Islamic Culture and Guidance.

contracts. Fifth, exchange requires a place for the parties to complete their transactions, meaning a market. Sixth, markets need rules of behaviour to ensure an orderly and efficient operation. Seventh, the contract of exchange requires trust among the parties as to commitments to perform according to the terms and conditions of exchange. Eighth, there must be rules governing the distribution of proceeds. Ninth, there must be redistributive rules and mechanisms to correct for pattern of distribution emerging out of market performance. These are rules that govern the redemption of the rights of those who are not parties to the contract directly but who have acquired rights in the proceeds because, one way or another, they or their properties have contributed to the production of what is the subject of exchange.

### 19.3.2 An ideal Islamic finance system

The ideal Islamic finance system points to a full-spectrum menu of instruments serving a financial sector embedded in an Islamic economy in which the institutional “scaffolding” (rules of behaviour as prescribed by Allah (swt) and operationalised by the Noble Messenger, including rules of market behaviour prescribed by Islam) is fully operational. The essential function of that spectrum would be spreading and allocating risk among market participants rather than allowing it to concentrate among the borrowing class. Islam proposes three sets of risk-sharing instruments:

- (i) mu'amalat risk-sharing instruments in the financial sector;
- (ii) redistributive risk-sharing instruments which the economically more able segment of the society utilise in order to share the risks facing the less able segment of the population; and
- (iii) risk sharing with the future generation via inheritance rules specified in the Qur'an through which the wealth of a person at the time of passing is distributed among present and future generations of inheritors.

As will be argued here, the second set of instruments is used to redeem the rights of the less able in the income and wealth of the more able. These are not instruments of charity, altruism or beneficence. They are instruments of redemption of rights and repayment of obligations.

The spectrum of ideal Islamic finance instruments would run the gamut between short-term liquid, low-risk financing of trade contracts to long-term financing of real sector investment. The essence of the spectrum is risk sharing. At one end, the spectrum provides financing for purchase and sale of what has already been produced in order to allow further production. At the other end, it provides financing for what is intended or planned to be produced. In this spectrum there does not seem to be room provided for making money out of pure finance where instruments are developed that use real sector activity only as virtual license to accommodate what amount to pure financial transactions.

### 19.3.3 From Ideal to actual: Islamic finance

Since Islamic finance is all about risk sharing, then the risk characteristics of a given instrument needs to become paramount in decisions. One reason, inter alia, for non-permissibility of the contract of al-riba is surely due to the fact that this contract transfers all, or at least a major portion, of risk to the borrower. It is to be noted that the Islamic contract modes that have reached us are all bilateral real sector contracts. However, what the contemporary Islamic finance industry has accomplished is to:

- i. multi-lateralise the bilateral contracts as the latter move from the real sector to the finance sector; and
- ii. employ instruments of risk transfer available in the conventional finance but made them Shari'a-compatible.

Furthermore, it seems that presently the energies of the market players are mainly focused on the design and development of instruments to accommodate the low-end of time and risk-return, liquid transactions. Without effort at developing long-term investment instruments with appropriate risk-return characteristics, there is a danger of emergence of path-dependency where the market will continue to see more – albeit in greater variety – of the same. That is more short-term, liquid and safe instruments. In that case, the configuration of Islamic finance would have failed to achieve the hopes and aspirations evoked by the potential of the ideal Islamic financial system.

## 19.4 Achieving the ideal: Uncertainty and risk

Now that we have discussed epistemologies of both conventional and Islamic finance, it is time to discuss how we can achieve the ideal having in mind the uncertainty and risks involved in everyday life.

Uncertainty is a fact of human existence. Humans live on the brink of an uncertain future. Uncertainty stems from the fact that the future is unknown and therefore unpredictable. If severe enough, it can lead to anxiety, decision paralysis and inaction. Lack of certainty for an individual about the future is exacerbated by ignorance of how others behave in response to uncertainty. Yet, individuals have to make decisions and take actions that affect their own as well as others' lives. Making decisions is one of the most fundamental capabilities of humans; it is inexorably bound up with uncertainty. Facing an unknown and generally unknowable future, individuals make decisions by forming expectations about payoffs to alternative courses of action. They can do so using subjective estimates of payoffs to actions based on personal experiences. Alternatively, the person can use known probability techniques to form an expectation of returns to an action. Either way, the expected outcomes will form an expression in terms of probability of occurrence of consequences to an action. In other words, uncertainty is converted into risk. Risk, therefore, is a consequence of choice under uncertainty. Risk exists when more than one outcome

is possible. It is uncertainty about the future that makes human lives full of risks.

Risk can arise because the decision maker has little or no information regarding which state of affairs will prevail in the future. A person, nevertheless, makes a decision and takes action based on expectations. Risk can also arise because the decision maker does not or cannot consider all possible states that can prevail in the future. In this case, even if the decision maker wants to consider all possible states of the future, there is so much missing information that it is impossible to form expectations about payoffs to various courses of action. This situation is referred to "ambiguity." People adopt various strategies of "ambiguity aversion." One strategy is to exercise patience and postpone making decisions until passage of time makes additional "missing" information available. The Qur'an has many references to the need for patience so much so that in a number of verses it is said that: "Allah is with those who are patient" and "Allah loves those who are patient" (see al-Qur'an, 8:46 & 3:146).

A question may arise as to how the existence of uncertainty and its overwhelming influence in human life be explained within the context of Islamic thought? Why is life subjected to so much uncertainty necessitating risk taking? Since Allah (swt) is the Creator of all things why create uncertainty? A full discussion of possible answers is beyond the task of this chapter. Suffice to say that in a number of verses, the Qur'an makes reference to the fact that this temporary existence is a crucible of constant testing, trials and tribulations (see for example 2:155& 2:76). Not even the believers are spared (see al-Qur'an, 29:2). To every test, trial and tribulation in their life-experience, humans respond and in doing so they demonstrate their measure of being self-aware and Allah-conscious. If the response-action is in compliance with the rules of behaviour prescribed by the Supreme Creator, that is it is "ahsanu 'amala", the "best action" (11:7), meaning completely rule compliant, then the trial becomes an occasion for self development and strengthened awareness of Allah (swt). Even then, uncertainty remains. No one can be fully certain of the total payoff to one's life within the horizon of birth-to-eternity. Muslims are recommended not to ever assume they are absolutely certain of the consequences of their action. They are to live in a state of mind and heart suspended between fear (khawf) of consequences of their actions and thoughts, and the hope (raja') in the Mercy of the All-Merciful Lord Creator. (see al-Qur'an, 2:216).

#### 19.4.1 Risk sharing

It follows from the above discussion that it would be difficult to imagine the idea of testing without uncertainty and risk. Statistician David Bartholomeu (2008) asserts that: "It could be plausibly argued that risk is a necessary ingredient for full human development. It provides the richness and diversity of experience necessary to develop our skills and personalities"<sup>12</sup>, he suggests that the risk is a precondition of free will and that to "...forgo risk is to forgo freedom; risk is the price we pay for freedom"<sup>13</sup>. While life and freedom are gifts

of the Supreme Creator to humans, and uncertainty and risk are there to test and try humans to facilitate their growth and development, humans are not left unaided to face the uncertainty of life and suffer its consequences. Prophets and Messengers have brought guidance on how best to make decisions and take actions to mitigate the risks of this life and to improve the chances of a felicitous everlasting life.

Islam, in particular, has provided the ways and means by which uncertainties of life can be mitigated. First, it has provided rules of behaviour and taxonomy of decisions/actions and their commensurate payoffs in the Qur'an. Complying with these rules reduces uncertainty. Clearly, individuals exercise their freedom in choosing to comply or not with these rules. That rules of behaviour and compliance with them reduce uncertainty is an important insight of the new institutional economics. Rules reduce the burden on human cognitive capacity, particularly in the process of decision making under uncertainty. Rules also promote cooperation and coordination. Second, Islam has provided ways and means by which, those who are able to, mitigate uncertainty by sharing the risks they face by engaging in economic activities with fellow human beings through exchange. Sharing allows risk to be spread and thus lowered for individual participants. However, if a person is unable to use any of the market means of risk sharing because of poverty, Allah (swt) has ordered a solution here as well: the rich are commanded to share the risks of the life of the poor by redeeming their rights derived from the Islamic principles of property rights. In addition, Islam's laws of inheritance provide a further mechanism of risk sharing.

## 19.5 Conclusion

This chapter has sought to trace the epistemological roots of conventional and Islamic finance. The reason for interest in the two fields is that, as contended, the present Islamic finance industry evolved over the past three decades from conventional finance to address a market failure in conventional finance in terms of unmet market demand for Islamic finance products. Most practitioners of Islamic finance were bankers and market players well familiar and often well established in the conventional finance sector. Their focus was, and is, to develop financial instruments familiar to conventional finance market albeit with Shari'a compatibility as an objective. Their ingenuity combined with an active and creative imagination of leading Shari'a scholars has managed to develop a rich array of synthetic and structured products all of which, in one form or another, are replicated, retrofitted or reverse engineered from conventional finance. This vast array of instruments is Islamic in so far as attempts are made to ensure avoidance of riba. This chapter contends, however, that this is only meeting the second half of the part of verse 275 of chapter 2 of the Qur'an in which Allah (swt) first ordains exchange contracts and, second, He (swt) prohibits al-riba contracts. The chapter argues that this approach has further entrenched the present Islamic finance industry within the conventional financial system rendering the Islamic finance industry a new as-

<sup>12</sup> Bartholomeu, D. J. (2008). *God, Chance and Purpose: Can God Have It Both Ways?* Cambridge: Cambridge University Press, p.230

<sup>13</sup> Bartholomeu, D. J. (2008), pp 239-240

set class within the conventional system. The Islamic finance industry could have taken a different course as a number of pioneering scholars had defined a trajectory for its development based on risk sharing. In the end, it was conventional finance that gave the Islamic finance industry its take-off platform, thus making the study of the epistemology of the conventional finance relevant.

Risk, as discussed above, is an inevitable fact of everyday life. The question is how to allocate it to those who are in the best position to bear it and how to build system resilient to absorb shocks emanating from materialisation of risk? The answer must surely lie in a system that provides a full-spectrum menu of risk sharing instruments. One such system, the chapter argues, is the ideal Islamic finance system that is more about risk spreading and risk sharing.

That said a lack of available equity instruments within the present menu of Islamic finance instruments is akin to a market failure; creating a strong ground for government intervention. Additionally, it is suggested that the introduction of Islamic finance at the global level represents a remedy for the failure of financial markets to meet a strong demand for Islamic instruments. It took government commitment, dedication, and investment of resources, particularly in the case of Malaysia, to correct this market failure. Once again, government intervention can remedy the current failure of the market to develop long-term, more risky, higher return equity instruments. Some 65 years ago Domar and Musgrave (1944)<sup>14</sup> argued that "if the government fully shared in gains and losses, it can actually encourage risky investment"<sup>15</sup>.

<sup>14</sup> Domar, E. D., & Musgrave, R. A. (1944). Proportional Income Taxation and Risk Taking. *The Quarterly Journal of Economics*, 58(3), 388-422.

<sup>15</sup> Stiglitz, J. E. (1989). Financial Markets and Development. *Oxford Review of Economic Policy*, 5(4), 55-68. p.65