TENETS OF
THE ISLAMIC ECONOMIC SYSTEM

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THUL HIJJA, 1429H – DECEMBER, 2008

PREPARED FOR ENCYCLOPEDIA OF ISLAMIC ECONOMICS

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Any economic theory is concerned with two objectives:

1. Wealth creation.
2. Wealth distribution.

On the other hand any economic system, worldwide and throughout history, contains two essential sectors: a for-profit sector and a non-profit sector. Wealth is largely created in markets, or the for-profit sector. The non-profit sector is largely concerned with wealth distribution.

This paper argues that the non-profit sector is necessary for the proper and smooth operation of the market. Without it, wealth creation is seriously hindered if not reversed. Non-profit activities are necessary not only on moral grounds, but also on market efficiency grounds.

The Islamic economic system cannot be properly understood unless the two pillars of an economy, the for-profit and the non-profit sectors, are taken together into consideration. The main tenets of Islamic economics, as presented below, serve this objective directly. These tenets draw the line between the two sectors, and achieve the necessary requirements for the efficiency of the market. The two sectors, together, are necessary for the overall well-being of human society.

The paper is organized as follows:

Section I presents economic arguments for why non-market arrangements and non-selfish motives are necessary for proper market performance.

Section II presents Islamic principles and rules that govern the relationship between the two sectors.

Section III shows how the two sectors are necessary for the well-being of the society.

The conclusion is given in section IV.

I. Why Markets Need Non-market Activities?

It is helpful first to clarify some terminology:

A non-profit or non-market activity is a transaction in which an agent gives up a positive legitimate economic gain, either actual or potential. Donation is a simple example. Such an activity works to redistribute wealth, but does not create wealth for both parties involved; it does so only for the receiver. A for-profit activity is a transaction in which each party seeks his own gain. Trade is the most common instrument.

Moral values, like honesty and truthfulness, are essential for all economic transactions. It is not difficult to see why markets will fail if agents do not trust each other. But what we mean by a non-profit transaction is more than that: It is to give up an economic gain even when that gain can be obtained without cheating or lying.

I.1 Coordination

Suppose citizens of a newly formed town want to establish a market for trading goods and services. There are two suitable places: the north and the south. Naturally, the northern place serves those living in the north better than those in the south. The opposite is true for the southern place. The following table presents payoffs for a representative of each group.

		Northerners	
		North	South
Southerners	North	10, 15	0, 0
	South	0, 0	15, 10

If the two groups choose the same place, they all make a positive gain. Northerners however make 15 while southerners make 10 if the northern place is chosen. Similarly, southerners make 15 while northerners make 10 if the southern place is chosen. However, if they disagree, costs of trading will be so high that their net gain is zero. This is called a coordination game (with asymmetric payoffs). Unless the two groups succeed in coordinating their choices, they all lose. Obviously, one group, or both, has to give up something in order for the market to operate efficiently. Without voluntarily giving up some of their potential gain, they would end up without any gain at all. In other words, without a non-profit action, market will fail.

The same argument applies for all civil standards and policies, whether in communications, transportations, or otherwise. In fact, the ability to coordinate society-level standards is a characteristic feature of civilized societies.

Another form of coordination games is presented below. Each party may choose H or L. Equilibrium is attained if the two parties choose the same strategy, reaching either (H, H) or (L, L). However, both are better off at (H, H) than at (L, L).

		Party 2	
		H	L
Party 1	H	10, 10	0, 5
	L	5, 0	5, 5

But why would players choose the inferior outcome (L, L)? If Party 1 is not sure that Party 2 will choose H, then he is better off choosing L. Choosing H is risky: If the other party did not play H, he ends up with zero. But plying L guarantees a minimum return of 5. This game may arise in several economic contexts. Producers for example may choose to produce either high or low levels of output. If consumers' demand is also high, they are all better off, as the economy grows creating more jobs and returns. But if producers are not confident of demand, they would settle on a low production level, resulting in a low state (or a recession) of the economy.

A similar instance is bank runs. If depositors believe that other depositors will keep their investment deposits with the bank (choose K), they are better off also choosing K, and thus earn better returns at maturity. But if they suspect that others may choose to withdraw early (choose W), they are better off to withdraw also. It becomes almost a self-fulfilling prophecy.

If depositors are able to coordinate their choices, they all become better off. Similarly, if producers and consumers are able to coordinate their decisions, they are all better off.

		Depositor 2	
		K	W
Depositor 1	K	15, 15	4, 10
	W	10, 4	7, 7

Coordination however cannot be based on pure self-interest. Agents must be willing to voluntarily give up some of their potential gains, or to take some risks, in order to achieve the desirable outcome.

Coordination failure may largely account for lagging growth and development in many countries. Coordination problems can be very complex at the society's level such that market mechanisms cannot solve them. Because of multiple equilibria, the economy might get stuck at an inefficient equilibrium for prolonged periods of time. Coordination in multiple equilibria is an instrumental factor for the evolution of social institutions. Institutions, by design, require non-selfish arrangements in order to be of value to the society. Resolving problems of multiple equilibria thus necessitates "social rationality," whereby society's interest takes precedence over individual's interest, in contrast to markets where "individual rationality" prevails. This shows why non-profit activities are crucial for achieving better economic equilibria. (See: Camerer, 2003; Cooper, 1999; Hoff and Stiglitz, 2001; Matsuyama, 1998; Myerson 2004; Ochs, 1995).

I.2 Prisoners' Dilemma

Another illustration of how non-selfish actions are economically valuable is the Prisoners' Dilemma game. In this game, if the two parties decide to cooperate, each gets 15. If party A defects but B cooperates, A gets 20 but B gets only 5, and vise versa if they switch strategies. If both defect, each gets 7. The problem here is that, if B cooperates, then A is better off defecting, and vise versa. Anticipating this behavior, the two would choose to defect, ending up in worse payoffs than if they both cooperate.

The Prisoners' Dilemma reflects the conflict between individual rationality and group rationality, which are generally referred to as "social dilemmas". For example, it is in the interest of producers in a certain industry to keep the price at a certain level so that they can earn enough margins on their sales. But this might tempt some to undercut the market and sell at a lower price, thus improving their own profits at the expense of others. If this is anticipated in advance, they all would cut their prices and end up with lower profits. For the desirable outcome (12, 12) to obtain, players must give up the tempting extra 3 generated by defecting.

		Party B	
		Cooperate	Defect
Party A	Cooperate	12, 12	8, 15
	Defect	15, 8	10, 10

The dilemma also arises in status games, i.e. when agents spend money simply to improve their position relative to others. If others do the same, they all end up with the same relative position, but after losing what they have spent. They would be better off if they cooperate and give up the preference for relative status. The same dilemma arises for arms race.

Free rider problems can be modeled as a Prisoners' Dilemma game but with many players, as in the "tragedy of the commons" problem. Suppose there is a public resource (a river, water well, or simply clean air) that producers have equal access to. The table above shows the payoff of a minority of the community playing against the rest (payoff of the majority is omitted). If all members of the community use the resource wisely, they all gain. But for some it is tempting to over-utilize the public resource, allowing the minority to gain extra returns at the expense of the majority. The free-rider problem has the same logic of "fallacy of composition": what might work for some, if adopted by all, would make every body worse. (Heap and Varoufakis, 1995; Kollock, 1998.)

		Majority	
		Cooperate	Defect
Minority	Cooperate	10	2
	Defect	15	5

Cooperation arises, and can be greatly enhanced, when agents view others as quite similar to themselves. In this case agents are very likely to treat others the way they prefer to be treated, thus avoid the fallacy of composition. Studies show that identical twins are more likely to coordinate in solving problems than non-identical twins. This is in conformity with the ancient wisdom: "Do to others what you would have them do to you" (Poundstone, 1992; Rapoport, 1960; Wilson, 1997). We shall see later how this principle relates to Islamic tenets.

I.3 Increasing Returns

Neoclassical theory assumes production technologies to be convex and therefore possess decreasing returns to scale. That is, investing more capital in the same project produces, at the margin, less returns. This means that the rich does not get richer; the system is stable and there is no reason to worry about wealth distribution. But reality, as well as recent developments in economic theory, raises serious doubts about this conclusion. Technologies and market mechanism tend to show increasing returns, a result well known from the value of specialization and division of labor. The fact that specialization pays off implies increasing returns: The more one specializes in a certain area, the better is his productivity and his returns. (See: Heal, 1999; Barabási, 2003.)

However, increasing returns cannot continue indefinitely. Beyond a certain point, returns would drop dramatically causing economic stagnation. A wealth transfer system therefore is necessary to avoid the "dismal" fate of wealth concentration. Such system would continuously work to mitigate wealth concentration resulting from markets, leading to better social and economic outcomes.

I.4 Aggregate Demand

Even on pure theoretical grounds, individualistic characterization of economic agents fails to produce aggregate demand functions with useful economic properties, unless all agents have identical preferences. Particularly, the most elementary property of demand, negative relation of demand to prices (the law of demand) cannot be obtained from individual rationality. According to Hildenbrand and Kirman (1988), "microscopic" or "individualistic" assumptions are not going to help, and that "individualistic microeconomics" will not allow theory to progress in this regard. For

aggregate demand to behave normally and, consequently, to be stable, non-individualistic assumptions must be imposed, e.g. regarding the distribution of income. In other words, agents have to behave non-selfishly in order for aggregate economy to function reliably. Thus, normal behavior and stability of aggregate demand require non-profit arrangements.

II. Boundaries of the Two Sectors

For-profit activities create wealth only when there are opportunities for mutual gain. When opportunities dry up, then such activities are likely to *destroy* wealth. Look how much it costs when a speculative bubble explodes. A bubble is simply trading for no common value—merely zero-sum games that end in wealth destruction.

This means that for-profit activities must be constrained in order to preserve wealth. When adding value is difficult or impossible, regulating for-profit activities opens the door for the non-profit sector. In this case non-profit activities will transfer wealth selectively to those who are more likely to use it wisely; i.e. to generate new opportunities for wealth creation. In other words, the non-profit sector is necessary to protect wealth from destructive for-profit activities.

With the proper size of the two sectors, for-profit activities create wealth, while non-profit activities preserve it. The two sectors therefore complement each other and enhance the normal functioning of each other.

For the non-profit sector to flourish and prosper, their must be limits to for-profit transactions, and the boundaries between the two sectors therefore must be clear and firm. Without such boundaries, profit incentives might well make the market expand and take over the non-profit sector, or make it shrink to a substantial extent.

Islamic rules of economic behavior provide the basis for drawing a clear line between the two domains. Four of the most important rules are (1) obligation of Zakah, (2) prohibition of Israf, (3) prohibition of Riba, and (4) prohibition of Gharar.

In addition, Islamic principles establish the basis for cooperative behavior necessary for both: the for-profit and non-profit sectors. We shall start with this aspect first, then move to the behavioral rules mentioned above.

II.1 Principle of Brotherhood

As pointed out earlier, highlighting similarity of agents is a key for resolving conflict and promoting cooperation. Similarity brings in sympathy; mutual sympathy, in turn, harbors trust, which is essential for cooperation. Note that similarity does not by itself promote cooperation; it is mutual sympathy that induces trust and therefore cooperation.

From an Islamic point of view, the principle of Brotherhood sufficiently reflects the essence of similarity and mutual sympathy needed for cooperation. Prophet Muhammad, peace be upon him, states that: “None of you will be a truthful believer till he loves for his brother that which he loves for himself” [4]. The Principle of Brotherhood replaces both individualism and communism as a social philosophy (Idris, 2008). Brotherhood, in turn, follows from the Oneness of God (Chapra 1992,

pp. 25, 206). Thus we can see how the basic belief in God translates into a system that supports cooperation and coordination in the economy.

Non-profit activities can be viewed as endeavors to reduce dissimilarity among community members. Donations for example help reduce wealth concentration and thus reduce asymmetry of wealth distribution.

Brotherhood implies sufficient similarity to induce sympathy and therefore cooperation. But it also implies sufficient diversity to allow for specialization and, subsequently, trade, as we shall see later. So the Principle is rich enough to allow for both: for-profit and non-profit activities. But it clearly points to the order of importance: Similarity and sympathy are the basis of the relationship, and thus takes precedence in case of conflict. It is no exaggeration that society is founded on cooperation. Accordingly, the non-profit sector constitutes the foundation of the economy, and the size of the sector reflects the value the society puts on cooperation.

II.2 Zakah

We have already seen that increasing returns are quite common in the real world, and thus wealth concentration follows from normal functioning of the market. The problem of "the rich get richer" is not a result of a conspiracy or bad practice; it arises naturally from non-convexity of the world we live in.

As already pointed out, increasing returns might lead to vanishing returns and thus stagnation of the economy. Zakah is a moral transfer system that remedies wealth concentration. This duty improves social relations and economic efficiency.

The Islamic approach towards negative side-effects of the market therefore is not to reject market mechanism altogether, as with communism. Nor it is to expect the market, in one way or another, to resolve its own problems, as with capitalism. "A problem cannot be solved at the level it was created," as Einstein reportedly pointed out. Instead, the Islamic approach is to remedy market's side effects by moving to a higher level, that of the non-profit sector. In this manner Islamic economics achieves the best of both worlds.

II.3 Israf

Israf means wasteful and non-productive spending. Prohibition of Israf is a moral or ethical measure. Although the involved contracts might be perfectly legal from an Islamic point of view, the way these contracts are applied must be such that value is created rather than destroyed. Over-spending, whether on consumption or investment, is therefore ethically regulated. This regulation directs surplus wealth to the non-profit sector. When wealth is transferred based on philanthropic basis, it is directed to the most needy, and therefore to the most fruitful use of wealth.

Over-spending on investment creates bubbles that end up in crashes, whereby large amounts of wealth simply disappear. In goods markets, limited profit opportunities lead merchants to over-spend on advertising in order to convince consumers to buy more. This leads to extravagant spending and consumerism that involve playing status games. Agents at this stage spend to improve their relative position in the society rather than to satisfy their own needs. Status games are zero-sum games: As other

agents over-spend to catch up, they all get back to their original relative position, but after losing huge sums of wealth.

Consumerism, further, involves increased level of borrowing, and thus over-indebtedness. As debts accumulate, consumers become less able to continue spending. The result: Recession, which is a loss to all. Again, wealth ends up being destroyed rather than created.

When opportunities for growth dry up, surplus wealth shall be directed to non-profit activities. This would stabilize demand, particularly for non-luxury goods, as the less fortunate become able to satisfy their needs. Prices consequently are stabilized. Instead of over-spending on advertisement and pushing consumers into higher indebtedness to keep up demand, non-profit transfers achieve better results with lower costs.

II.4 Riba

Throughout history, interest on loans or usury has been subjected to various forms of regulations, religious or otherwise. All divine religions strictly prohibit taking interest on loans. A loan in an Islamic economy is viewed as a non-profit activity: it creates wealth to the borrower but not to the lender. Replacing this function of lending through Riba has serious drawbacks on both wealth creation and wealth distribution. Fallacy of composition shows how Riba negatively impacts wealth creation. Positive feed-back mechanism shows how it impacts wealth distribution. We shall discuss these in turn.

Fallacy of Composition

Fallacy of composition arises when a certain action is beneficial for the individual but harmful for the group if every one adopts it. It represents a "social dilemma" where interest of the individual conflicts with that of the group, as pointed out earlier. Ancients realized the solution: "Do to others what you would have them do to you". This has been confirmed by teachings of the Prophet, peace be upon him. More than a millennium later, Immanuel Kant reaches the same conclusion: Ethical behavior is that which can be universalized.

To see how interest-based lending implies fallacy of composition, suppose that the borrower, instead of using the loan productively, decides to re-lend the principal to another agent, at interest. And that the second borrower decides to do the same, etc. Would this be feasible? The answer is simply no. If each agent would re-lend the principal at interest, from where would interest be repaid? Someone must produce wealth in order to repay the principal plus interest. Without creating wealth, interest will be impossible to repay.

While some agents might live on lending at interest, if every one does the same, the economy will collapse. People cannot live off the interest of their mutual indebtedness (Daly, 1996). This is an echo of what Al-Razi (1209) and other Muslim scholars have stated long time ago [1], [2]. Accordingly, interest-based lending, as such, is not a wealth-creating activity.

Interestingly, hoarding is another example of fallacy of composition. An individual might gain by hoarding, but if every one does the same, the economy will collapse. Not surprisingly, both, hoarding and interest-based lending, are prohibited in Islamic economics. Both are forms of fallacy of composition, and thus are not sustainable at the level of the society. This shows how Zakah (as a measure against hoarding) and Riba prohibition share the same rationale.

Note that interest-free lending does not imply fallacy of composition. If the same principal is re-lent over and over again, in theory it can be repaid without difficulty. But in this case no wealth will be created. This shows clearly that lending, in itself, is not a wealth-creating instrument.

It is insightful to compare lending to trade, and see how the two differ with respect to wealth creation. Trade is an exchange of two different countervalues. A loan is an exchange of two identical countervalues. The difference in traded countervalues is what allows for specialization. An agent who is good at farming can specialize in producing crops, and then trade surplus crops for cloths produced by another specializing agent. The same logic applies to countries with respect to international trade. Trade therefore capitalizes on comparative advantages of agents or countries, allowing for gains from trade and therefore creating wealth.

Lending in contrast does not promote specialization. A lender gets exactly what he has given up. Lending therefore dose not facilitate productive allocation of resources. An economy therefore can and does live off trade, but cannot live off interest on mutual indebtedness. By prohibiting interest on lending, a loan becomes purely a non-profit instrument, helping the receiver (borrower), without generating income to the donor (lender). In this manner a loan is directed to the needy, thus improving welfare without degrading productivity.

Since interest-based lending implies fallacy of composition, it is another form of "tragedy of the commons" captured by multi-person Prisoners' Dilemma game discussed earlier. Based on the above discussion on the nature of trade, we can present the game as a choice either to trade (cooperate), or to lend at interest (defect).

If an agent chooses to Trade, he incurs costs and risks of ownership and specialization. If all agents choose to Trade, they are all better off nonetheless. But there is a temptation for some to lend at interest (and gain 12 instead of 10) as long as others take care of trade and production. If they all do the same, however, they end up with nothing. If few agents trade when most others are lending, the formers will bear net costs (-2) of singlehandedly carrying out productive activities. By prohibiting interest, the temptation to switch from Trade to Lend is eliminated (since the payoff now becomes less than, or, at most, equal to, 10), thus assuring the better outcome.

		Majority	
		Trade	Lend
Minority	Trade	10	-2
	Lend	12	0

Positive Feedback

Probably the most important property of interest or Riba is that it allows debt to grow exponentially. The exponential growth of debt necessarily exceeds the growth of real wealth, which implies that debt services must exceed earned income. The system

therefore is not sustainable; bankruptcies, recessions, and currency depreciations will be natural reactions to correct the imbalanced system. According to Herman Daly (1996):

> Since wealth cannot continually grow as fast as debt, the one-to-one relation between the two will at some point in time be broken—there must be some repudiation or cancellation of debt. The positive feedback of compound interest must be offset by counter acting forces of debt repudiation, such as inflation, bankruptcy, or confiscatory taxation, all of which breed violence. Conventional wisdom considers the latter processes pathological, but accepts compound interest as normal. Logic demands, however, that we either constrain compound interest, or accept as normal and necessary one or more of the counteracting mechanisms of debt repudiation (p. 179).

Interest therefore is not simply a price; it is a mechanism for debt growth and self-replication independent of wealth. Only passage of time is sufficient for debt to grow. Obviously, this is not true for wealth, where hard work and intelligence are necessary for wealth creation. Since wealth cannot sustain exponential growth, as Daly rightly points out, compound interest causes debt to grow faster than wealth, causing instabilities and cycles. Capitalist economies, therefore, have inherent tendency towards "financial fragility," namely the vulnerability to business cycles and crashes due to excessive debt levels (Minsky, 1982).

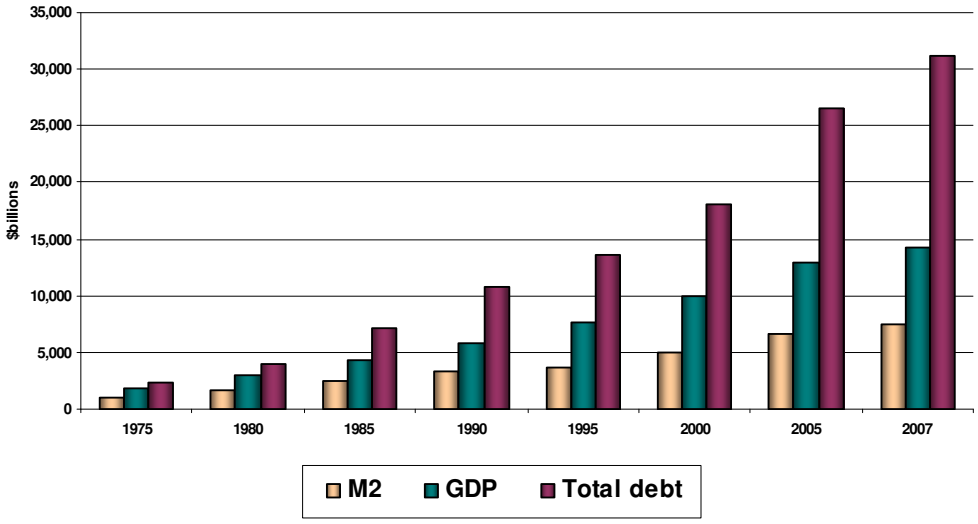
Debt growth is becoming a source of concern for industrialized countries (Afonso and C. Rault, 2007). The following graph shows total domestic non-financial debt in the US, compared to M2 and nominal GDP, for selected years during 1975-2007.

The graph shows that total debt is growing faster than M2 and GDP. Debt grew from $2.3 trillions in 1975 to $31.2 trillions in 2007. M2 and GDP grew from $1 and $1.8 trillions to $7.5 and $14.2 trillions, respectively.

Average annual growth rate for the period 1975-2007 is 19% for M2, 21% for GDP, but 39% for debt. Since debt has to be paid in money, the graph shows that it is increasingly difficult to pay back the debt.

Available money, even when adjusted for its velocity (multiplying M2 by its velocity produces nominal GDP), is growing slower than debt. Debt-to-GDP ratio grew from 1.3 in 1975 to 2.2 in 2007, while that of debt-to-M2 grew from 2.2 to 4.2 during the same period.

In reality as well as in economic theory, debt must be constrained to avoid economic collapse. The European Union requires that member countries restrict government debt to be less than 60% of their respective GDP, and that budget deficit be less than 3% of respective GDP.



Money and Debt in the US

Source: www.federalreserve.org; alfred.stlouisfed.org

In economic theory, dynamic optimization requires satisfying the intertemporal budget constraint (IBC); namely that spending is bounded by revenues or income. Any interim borrowing must be repaid within the planning horizon. IBC excludes the possibility of Ponzi financing: that an agent borrows to pay interest on past debt. The IBC is equivalent to the No-Ponzi-Game (NPG) condition (Blanchard and Fischer, 1989). The NPG condition requires that, in the long run, the present value of debt would vanish, which is equivalent to the transversality condition required for optimal dynamic behavior.

Thus in theory as well as in reality, debt must be controlled. The measures taken in capitalist economies (the EU conditions mentioned above, as well as usury laws), are ad hoc regulations. The heart of the problem, however, is not addressed. By prohibiting interest on loans, and restricting time value to trade, debt in an Islamic economy is automatically constrained by wealth creation (Al-Suwailem, 2008). Accordingly, debt becomes a means for wealth creation rather than for wealth destruction.

II.5 Gharar

In its purist form, Gharar is a zero-sum game with uncertain payoffs. As it is well known, a zero-sum game does not create wealth. It simply transfers wealth from one party (the loser) to the other (the winner). Commenting on Lester Thurow's *Zero-Sum Society* (1980), Roy Gardner (1995, p. 37) writes:

> No value can be created in a zero-sum game; the players are forever at each other's throats. In such a society, economic [positive] change is nearly impossible, and when it is possible, it comes only at a very high cost.

But why would rational people play zero-sum games? It is uncertainty of the outcomes. If the two players know in advance the final outcome, the loser will refuse to play. For this reason, in zero-sum games players must either conceal their strategies or randomize them (Schelling, 1980). This clearly shows how zero-sum games present a fertile environment for deception and instability. In fact, these two ills, risk and deception, define the meaning of the word Gharar in Arabic [3]. They also characterize, to an increasing extent, many aspects of financial markets in recent times (e.g. Partnoy, 2003).

Although they are considered zero-sum, in a dynamic context, such games end in destroying wealth, not only mere zero-sum transfers. The reason is that a losing player will not simply give up and go home. He will resume playing with every possible means to recover his costs. The process therefore becomes a war rather than an exchange. As Gardner points out, "players are forever at each other's throats." In such an environment, wealth is most likely destroyed. Further, by side-betting on market movements, losses get amplified. A drop in stock market, say, becomes a loss not only for stock owners, but also to all those who were betting the price will go up. The larger the size of side-bets, the larger is the amplification of losses. Zero-sum games, therefore, lead to negative-sum payoffs, rather than simply zero-sum.

Since a zero-sum game is a game where the two parties are in direct conflict, Gharar violates the Principle of Brotherhood stated earlier. This reasoning is explicitly stated in the Quran (4:91) with respect to Maysir. Recall that Riba also violates Brotherhood as it leads to fallacy of composition.

There is another dimension for the common aspects of the two. Gharar can be seen as trading risk independent of real wealth. Riba can be viewed as trading time independent of real wealth. Risk and time, however, are two sides of the same coin. Thus, the two share the same structure, and therefore both are prohibited in Islam. (Al-Suwailem, 2006).

III. Why Do We Need Both?

So far, we have argued that the non-profit sector is necessary for the normal functioning of the market. But the non-profit sector has a more important role to play, side by side with the profit sector. There is no difficulty in realizing that income and material wealth contribute to happiness and well-being of human beings. But research in the past decades has shown beyond doubt that material wealth is not sufficient. It contributes greatly to happiness up to a certain level, whereby basic needs are satisfied. But beyond that, its contribution is minimal. During the past half a century, average personal income has more than doubled in the West, yet happiness has stagnated.

One reason for this result is "adaptation": Beyond basic needs, we get adapted to our material standards of living. To feel happy, we need to raise the standards. If the standards are raised and income is increased, we feel happy for a while, and then get adapted to it, whereby we need to raise the standards yet again to restore happiness, and so on. As income rises, we adapt to it, and seek even higher increase in income to restore happiness. This is the measure of "addiction" to income.

Further, beyond basic needs, people start to compare their material status with their peers or reference group. So if income for every one doubles, their happiness level would stay the same. But if some get 20% increase, while others get 40%, the former group will feel less happy than without the increase altogether. The status game will make people less happy.

This dilemma cannot be resolved if only material preferences are the main source of happiness. Not surprisingly, humans are equipped with non-material preferences that are valuable source of happiness. Among these are preferences for "giving" and benevolent behavior. How these preferences interact with material preferences?

By giving, two effects result: one is direct satisfaction from benevolent behavior. The other is that income or wealth is temporarily reduced, which breaks the adaptive process dampening income happiness. This helps improve happiness from the same level of income without further increases.

Further, by giving, one shifts his attention from peers to less fortunate groups in the society, which undermines the zero-sum game of status. (See Layard, 2005, and Lane, 2000).

In sum, non-profit activities play a dual role in improving happiness: one through their direct satisfaction, the other through breaking income adaptive process and undermining status games, resulting in better satisfaction from the same level of income.

IV. Conclusion

In theory as well as in reality, the economy cannot function normally based on for-profit motives only. Markets cannot perform their expected role without coordination and cooperation, which necessarily requires non-profit arrangements.

Islamic Economics represent a system of values, behavioral, and legal rules that insure the integrity and balance of the two domains. The non-profit domain is driven by similarity and sympathy, leading to cooperation among community members. The market, in contrast, is driven by diversity, leading to specialization and trade. The Principle of Brotherhood is rich enough to allow for both: similarity and diversity, but, in case of conflict, it gives clear priority to similarity and sympathy. We have seen how Zakah, prohibition of Israf, of Riba, and of Gharar, act to achieve these objectives. Not only does this enhance social integrity and stability, it also improves wealth creation and, more important, elevates happiness of the community.

References

Afonso, A. and C. Rault (2007) "What Do We Really Know About Fiscal Sustainability in the EU?" European Central Bank, Working Paper no. 820. URL: www.ecb.europa.eu.

Al-Suwailem, S. (2006) Hedging in Islamic Finance, Islamic Research and Training Institute.

Al-Suwailem, S. (2008) Islamic Economics in A Complex World: Explorations in Agent-based Simulation, Islamic Research and Training Institute.

Barabási, A. (2003) Linked, Plume, Penguin Group.

Blanchard, O. and S. Fischer (1989) Lectures on Macroeconomics, MIT Press.

Camerer, C. (2003) Behavioral Game Theory, Princeton University Press.

Chapra, M.U. (1992) Islam and The Economic Challenge, The Islamic Foundation.

Cooper, R. (1999) Coordination Games: Complementarities and Macroeconomics, Cambridge University Press.

Daly, H. (1996) Beyond Growth: The Economics of Sustainable Development, Beacon Press.

Frank, R. (1999) Luxury Fever, Princeton University Press.

Gardner, R. (1995) Game Theory for Business and Economics, John Wiley & Sons.

Gibbons, R. (1992) Game Theory for Applied Economists, Princeton University Press.

Heap, S. Hargreaves and Y. Varoufakis (1995) Game Theory: A Critical Introduction, Routledge.

Hildenbrand, W. and A.P. Kirman (1988) Equilibrium Analysis, North-Holland.

Hoff, K. and J. Stiglitz (2001) "Modern Economic Theory and Development," in G. Meier and J. E. Stiglitz, eds., Frontiers of Development Economics: The Future in Perspective, Oxford University Press, pp. 389-485.

Idris, J.S. (2008). Personal communications. May 22.

Kollock, P. (1998) "Social Dilemmas: The Anatomy of Cooperation," Annual Review of Sociology, vol. 24, pp. 183-214.

Lane, R. (2000) The Loss of Happiness in Market Democracies, Yale University Press.

Layard, R. (2005) Happiness: Lessons from a New Science, Penguin Books.

Matsuyama, K. (1998) "Economic Development as Coordination Problems," in M. Aoki, H. Kim, and M. Okuno-Fujiwara, eds. The Role of Government in East Asian Development, Comparative Institutional Analysis, Oxford University Press, pp. 134-161.

Minsky, H. (1982) Can "It" Happen Again? M.E. Sharpe Inc.

Myerson, R. (2004) "Justice, Institutions, and Multiple Equilibria," Chicago Journal of International Law, vol. 5, pp. 91-107.

Ochs, J. (1995) "Coordination Problems," in J. Kagel and A. Roth, eds. *Handbook of Experimental Economics*, Princeton University Press, pp. 195-251.

Partnoy, F. (2003) Infectious Greed: How Deceit and Risk Corrupted the Financial Markets, Henry Holt and Company.

Poundstone, W. (1992) Prisoner's Dilemma, Anchor Books.

Rapoport, A. (1960) Fights, Games, and Debates, University of Michigan.

Schelling, T. (1980) The Strategy of Conflict, Harvard University Press.

Thurow, L. (1980) The Zero-Sum Society: Distribution and Possibilities for Economic Change, Basic Books.

Wilson, J.Q. (1997) The Moral Sense, Free Press.

Arabic References

[1] **مفاتح الغيب**، فخر الدين الرازي، المطبعة الخيرية، ١٣٠٨هـ. بوساطة [2].

[2] **الربا وأثره على المجتمع الإنساني**، عمر الأشقر، مكتبة المنار، ١٤٠٨هـ، ١٩٨٨م، ص١٢١.

[3] **الغرر وأثره في العقود**، الصديق الأمين الضرير، دار الجيل، ١٤١٠هـ، ١٩٩٠م.

[4] **صحيح البخاري**، حرف لتقنية المعلومات، رقم ١٢.