The Time Value of Money Concept in Islamic Finance

Abu Umar Faruq Ahmad and *M. Kabir Hassan*

Abstract

The time value of money is a basic investment concept and a basic element in the conventional theory of finance. The Shari`ah does not rule out this consideration, for it does not prohibit any increment in a loan given to cover the price of a commodity in any sale contract to be paid at a future date. What is prohibited, however, is making money's time value an element of any lending relationship that considers it to have a predetermined value. Here, the Shari`ah requires that a loan be due in the same currency in which it was given. The value (i.e., purchasing power) of paper currencies varies due to changes in many variables over which the two parties of a loan contract usually have no control. This study examines possible *modus operandi* of time valuation according to the Shari`ah's precepts vis-à-vis the concept of money, and whether any value can be attributed to time while considering money's value. For this purpose, it investigates the juristic views on such relevant issues as the permissibility of difference between a commodity's cash and credit prices and an increase and reduction of the loan's amount in return for early repayment.

Abu Umar Faruq Ahmad, an independent Islamic legal advisor, received his LL.B. in Shari`ah from the Islamic University of Madinah, Saudi Arabia (1984), and an LL.M. (Honours) in law from the University of Western Sydney, Australia (2003). He is working on his doctoral thesis, "Law and Practice of Modern Islamic Finance in Australia" at the University of Western Sydney Law School and lecturers on Islamic legal studies at Sule College, Sydney. Dr. Kabir Hassan is a financial economist with consulting, research, and teaching experience in development finance, money and capital markets, corporate finance, investments, international trade and finance, and Islamic banking and finance. He is a tenured professor in the Department of Economics and Finance, University of New Orleans, Louisiana.

Introduction

Islam prohibits giving and taking *riba*[1] in the strongest terms.[2] This prohibition can be considered a sort of denial of time's monetary valuation. Considering time's monetary valuation is not ruled out in Islamic legal financial theory and practice, as long as it is not part of a lending relationship in which it is claimed as a predetermined value. In credit-based sale contracts, where a commodity's price is allowed to differ from the spot price being time element is involved in the process of exchange, can be considered a sort of recognition of money's time value in Islamic finance. Besides, as far as rents and wages are concerned, when they include a fixed and predetermined element as a compensation for time, the Islamic prohibition of *riba* denies any recognition for the money's time value. In case time's monetary valuation is not recognized by Islam, as it may be assumed, there would be no need for money's time value in project evaluations and feasibility studies. On the contrary, if Islam recognizes it, then what are the principles under which such value can be determined and distinguished in a loan contract from an investment contract? This study attempts to resolve some of these relevant issues.

Modern banking and finance are based on the concept of money's time value.[3] This value is considered a basic investment concept and also a basic element of conventional financial theory and, in return, is fully compatible with the conceptual system of economic science. The established techniques of cash-flow analysis, as well as the cost of capital and valuation of assets, constitute the *modus operandi* of modern finance, as well as of such financial institutions as the stock exchanges, central banks, commercial banks, non-bank financial institutions, and the world of trade.

Islamic finance does not rule out time's monetary valuation, for the Shari`ah (Islamic law) does not prohibit increment in loan in the price of a commodity in any sale contract to be paid at a future date. What the Shari`ah does prohibit is making money's time value an element of a lending relationship where it is claimed as a predetermined value. Here, the Shari`ah requires that a loan be paid back in the same currency by which it was given. The value (i.e., purchasing power) of paper currencies varies with changes in many variables over which the two parties of a loan contract usually have no control.

The preferred course is derived from the Qur'an and the Sunnah of Prophet Muhammad (peace and blessings be upon him). The guiding principle in contracts, terms, and conditions is permissibility when there is no explicit prohibition. Given this, any modern type of contract not mentioned in the Shari`ah is allowed if it does not conflict with the Qur'an or the Sunnah and is based on *ijma`* (consensus) and *qiyas* (reasoning by analogy) and *maslahah mursalah* (considerations of the public good), and also is free of any evil. As the Shari`ah has solved day-to-day problems in its underlying rules and ethics over the years, it also has dealt with such concepts as money's time value and the like.

Within the context of Islamic finance, this concept is established by the fact that the Shari`ah prohibits the mutual exchange of gold, silver, or monetary values – except when this is done simultaneously. The reasoning behind this is that Islam does not allow people to profit from using a currency that they have received before being given its counter-value, a situation of which the other party could take advantage. Furthermore, time valuation is possible only when goods are traded, not when exchanging monetary values and loans or debts. On the other hand, the Shari`ah considers a loan to be a gratuitous contract. That is why when one makes a *qard hasan* (a beautiful loan), the return on his/her loan is forwarded to the Hereafter, thereby making the loan a loan to God for which, in return, his/her reward will be multiplied. Therefore, no time value can be added to the loan's or the debt's principal after it has been assumed or the purchaser's liability has been stipulated.

Since Islam views a loan as a gratuitous contract, lending at a premium amounts to *riba*, defined as an increase for which there is no counter-value. Unlike the Shari`ah, such an arrangement is considered the same as unjust enrichment and, being an antithetical concept, must be rejected. Thus, any enrichment from trading in debt is forbidden.

Islam acknowledges an increment in a commodity's price in any sale contract to be paid at a future date, as long as money's time value is not claimed as a predetermined value. In other words, any conditional increase in the loan's principal in return for a deferred repayment due to an expected depreciation in the value of the money, asset, or other factors (e.g., inflation and commercial losses) is prohibited.

There is near consensus among Islamic jurists that in a credit sale contract where repayment is deferred, a commodity's price may be increased. Although this juristic opinion seems to be inconsistent, since it views time differently in the case of loans and credit sales, on closer scrutiny of Islam's actual perception of time's economic role, one may conclude that this matter is not as people assume. From an Islamic legal financial perspective, this issue remains unresolved. This study attempts to resolve, in general, some of the relevant questions and, in particular, to examine the possible *modus* *operandi* of time valuation according to the Shari`ah's precepts vis-à-vis the concept of money as to whether any value can be attributed to time while considering money's value. For this purpose, it investigates the juristic views on such relevant issues as the permissibility of difference between a commodity's cash and credit prices and an increase or a reduction in the loan's amount in return for early repayment.

The organization of the paper is as follows: Section 1 gives a short introduction to the core topic; section 2 presents a review of previous literature on the subject; section 3 discusses how Islam and capitalism view money, attempts to deal with the Shari`ah's permissibility of credit sale, and the difference between a commodity's cash and credit prices in sale transactions; and section 4 summarizes and presents some concluding remarks investigating the juristic views regarding the Islamic legal and financial positions on time's monetary valuation.

A Review of the Literature

This study seeks to help researchers and those people involved in the relevant field to understand the Shari`ah's position on time's monetary valuation in the Islamic legal financial system. As stated above, this study examines the Islamic viewpoints on money and on increasing prices when dealing with cash and credit transactions vis-à-vis the juristic views on this valuation. Reviewing the relevant literature was not an easy task, due to the limited number of investigations, at least from what we were able to determine, regarding such issues. This section includes a review of previously published research that deals with this field.

Zarqa, in his work on discounting in project evaluation under an Islamic economic system, rigorously dealt with the issue of money's time value and concluded that a positive time preference is neither a principle of rationality nor an empirically established predominant tendency among consumers. It is, in fact, simply one of the three tendencies among consumers, the others being a zero and a negative time preference, each of which is rational and observable under its own conditions.[4] He further argued that as time preference need not always be positive, it could not provide a valid base for discounting. However, he claimed that discounting is one of the definite requirements for efficiency in investment in both the private and the public sectors. He suggested that for private projects, the rate of return on projects with similar risks should be an appropriate rate of discounting.[5] For public projects, the discount rate should be adjusted downward to reflect the common view that such projects are less risky and that the objectives are more complex.[6]

Khan agreed with Zarqa's proposal that the rate of return on projects with a comparable risk could be used as the discount rate for private projects. However, he argued that doing so for public projects would not be appropriate. Given that the risk associated with public projects is distributed among a very large number of taxpayers, he suggested using a discount rate for public projects that represents the money's pure time value.[7] According to him, there are two types of risk: time-related risks and non-time-related risks. He asserted that rate of return on risky projects includes remuneration for both types of risks. These rates must be decomposed into two, and only that the time-relatead part of it should be used to discount public projects. He calls this the "pure time value of money." In addition, he states that the value of time preference increases with the increase in the length of time and that Islamic banks finance many (diverse) projects at the same time, thereby eliminating risks not related to time, and also have deposits of different maturity. Thus, he suggested that the expected rates of return on deposits of different maturity should be taken as the discount rates for projects of different maturity.

Relating to the issue of money's time value of discounting, wages, rents, *bay` mu'ajjal* (i.e., cost plus sale of commodities on deferred payment basis), and *bay` salam* (i.e., purchasing commodities on payment in advance and receipt of their delivery at a future specified date), and rent (*bay` salam*), Khan observed that the perceptible contradiction in banning *riba* seems to be based on the concept of money's positive time value. In his opinion, rents and wages are allowed in spite of being predetermined and, like interest, involving money's time value.[8] He also claimed that although Islamic jurists have permitted a difference between a commodity's cash and credit price in *bay` mu'ajjal*, they could not legitimize a predetermined time value for money. The jurists, he opined, could have allowed the difference in the cash and credit price because they recognized that supply and demand forces could be different at different times. He further claimed that the same demand and supply considerations led the jurists to allow the future price in a *bay` mu'ajjal* and *bay` salam* transactions to be higher, lower, or equal to the present price.[9] According to him, allowing for any difference in the price of a commodity to be delivered in the future is likely to be simply a recognition of the forces of supply and demand that may cause prices to be different at different points in time.

Several points made by Khan were critically reviewed by Kahf, who claimed that the banning of *riba* is not the main issue of denying or recognizing money's time value.[10] He disagreed with the notion that paying wages and rents is practically the same as recognizing money's time value. Refuting the idea that demand and supply in the future must have been considered to permit *bay` mu'ajjal*, he argued that the legitimacy of *bay` mu'ajjal* and *bay` salam* can be rationalized along the lines of *musharakah*, *mudarabah*, and *ijarah* on the basis of ownership and the distinction between money's anticipated and realized time value.[11]

Siddiqui disagreed with some of the notions mentioned above. He observed that people may not generally have a pure positive time preference.[12] Moreover, what may appear as a pure time preference may not be a preference for present consumption over future consumption, for people are generally not irrational or unmindful of future needs. Rather than preferring present consumption, they may actually prefer a currently realized income to a promised future income. In his words, in the context of Islamic economics and finance, none of the above two reasons justifies a reward for a consumption loan. In addition, he suggested that although the case of consumer durables seems to be different from that of goods regarded as necessities, it would be a unique contribution of Islamic finance if an interest-free loan mechanism for such goods could be devised. According to him, unlike Kahf's assertion, *bay` mu'ajjal* is neither similar to *mudarabah* or *musharakah*, nor could its permissibility be linked to *bay` salam*.

According to Pervez, there are no specific Islamic theories on money's time value, since postponing an asset's enjoyment to a future date is, in effect, a sacrifice made by the investor; an expected depreciation of the money's or asset's value due to factors related to inflation, depreciation, and commercial loss.[13] He observed that the use of money or assets may be permitted on humanitarian grounds without any return or compensation whatsoever. Given this notion, which is contrary to that of Khan and Kahf, he held the opinion that placing a value on time when dealing with *murabahah* transactions is not permissible, but that it is permissible when dealing with such asset-based transactions as *ijarah* rentals, where an asset's use is relevant to its period.[14]

Money: An Islamic Viewpoint

The Concept and Nature of Money

There are many differences between the Islamic and the conventional financial systems, the most striking of which relates to how they perceive money.

In a capitalist system, money is more a commodity of trade and, as such, can be bought, sold, and speculated freely. In other words, it has a time value and one who uses other people's money must pay for doing so in the form of interest. On the contrary, Islam views money as, on the one hand, something that cannot be hoarded and, on the other hand, something that cannot be wasted in large quantities.[15] Given these two limits, the capitalist method of banking, which is based on interest, is, as much as regards the objective, totally opposed to the Shari`ah's general intentions, because Islam treats money as unit of account and a means of exchange and not a store of value, since money, by itself, performs no function. It becomes useful only when it is exchanged into a real asset or used to buy a service. Therefore, it cannot be sold or bought on credit. The underlying reasons for this are:

(a) Money has a technical property of yielding its owner's real income simply by holding it and not exchanging it with other goods.
(b) Money is liquid, virtually no carrying or production costs are involved, and it has no substitute.
(c) Demand for money is unreal, as it is derived from demands for goods that money can buy.
(d) Money is exempt from the law of depreciation, to which all goods are subjected.
(e) Money is the product of a social convention having a purchasing power that results mainly from sovereignty as against the inherent value of other goods.[16]

Money as a Commodity

Unlike capitalist economics, where theories of interest are based on the presumption that money is a commodity, Islam views money and commodities differently:

(a) Money has no intrinsic utility. It cannot be utilized to directly fulfill human needs, but can only be used to acquire some goods or services. A commodity, on the other hand, has an intrinsic utility and can be utilized directly without exchanging it for something else.[17]
(b) Commodities can have different qualities, while money's sole quality lies in the fact that it is a measure of value or a medium of exchange. Therefore, all units of money having the same denomination are exactly equal to each other.

(c) In commodities, selling and purchasing transactions are effected on an identified particular commodity. For example, if "A" has purchased a Toyota of a particular make and model and the seller has agreed to deliver that very car, the seller cannot force the purchaser to take delivery of a Mazda, regardless of its make and model. Money, on the contrary, cannot be pin-pointed in a transaction of exchange.

Based on these basic differences, the Shari`ah treats money differently from commodities for two main reasons[18]: First, money is not held to be the subject-matter of trade like other commodities, for its use is restricted to its basic purpose (i.e., serving as a medium of exchange and a measure of value). Second, if money has to be exchanged for money or is borrowed for exceptional reasons, the payment on both sides must be equal so that it is not used for any purpose for which it is not meant to be used (i.e., trading in money itself).

Making Money out of Money

Since Islam considers money to be no more than a medium of exchange and to have no value in itself, it should not be allowed to give rise to more money (via fixed-interest payments) simply by being put in a bank or lent to someone else. The human effort, initiative, and risk involved in a productive venture are more important than the money used to finance it. Islamic jurists consider money as capital only when it is invested in business. Accordingly, money advanced to a business in the form of a loan is regarded as a business debt and not as capital. Therefore, it is not entitled to any return (i.e., interest). Muslims are encouraged to purchase and are discouraged from keeping money idle, for hoarding is considered unacceptable. In Islam, money represents purchasing power and so can only be used to purchase something. This purchasing power cannot be used to make more purchasing power without undergoing the intermediate step of being used to purchase goods and services. So, money is treated as capital only when it joins hands with other resources to undertake a productive activity. Islam recognizes its time value only when it acts as capital, not when it is "potential" capital.[19]

Lending Money

Like the capitalist financial system, Islam does not recognize loans as income-generating transactions. The basic philosophy of Islamic finance underlying the lending money is that the one who offers money to another person has to decide if (a) money is being lent a sympathetic act, (b) money is being lent to the borrower so that his/her principal may be saved, or (c) money is being advanced to share in the borrower's profits. In cases (a) and (b), the lender cannot claim any additional amount over and above the principal, because in case (a) the financial assistance has been given on humanitarian grounds or some other sympathetic considerations, and in case (b), the lender's sole purpose is to save money and not earn any extra income.

However, if the lender intends to share in the borrower's profits, as in case (c), the lender also has to share in any ensuing loss experienced by the borrower. In this case, the lender's objective cannot be served by a loan transaction; rather, a joint venture with the opposite party, whereby both of them will have a joint stake in the business and will share its outcome on a fair and proportional basis, will have to be undertaken. Conversely, if the intent of sharing the borrower's profit is designed on the basis of an interest-based loan, it means that the financier wants to ensure his/her own profit while leaving the borrower's profit at the mercy of the actual outcome of the business. If the business goes under, the borrower will have to the entire loss as well as have to pay the interest. In other words, the lender's profit or interest is guaranteed at the price of the borrower's destruction. Obviously, this is a glaring injustice.

On the other hand, if the borrower's business earns huge profits, the financier should receive a reasonable share. The case is different in an interest-based system, where the lender's profit is restricted to a fixed rate of return governed by, among other factors, the forces of money's supply and demand and not on the actual profits produced. This rate of interest may be far less than the reasonable proportion a financier might have deserved, had it been a joint venture. Thus, the borrower receives the major part of the profit while the financier gets far less than he/she deserved, based on his/her input into the business, which is another form of injustice.

Thus, financing a business on the basis of interest creates an unbalanced atmosphere that has the potential of bringing injustice to either party in different situations. This is why the Shari`ah prohibits interest-based loans as a form of financing.

Cash vs. Credit Price in Sale Transactions

The Permissibility of Sale on Credit: The Legal Evidences

The following legal evidence is worthy of note with regard to the legitimacy of sales on credit.

1. The following Qur'anic verses: "Allah has permitted trade and forbidden *riba*"[20] and "O you who believe! When you deal with each other in transactions involving future obligations in a fixed period of time, record them in writing."[21]
2. The undisputed hadith related in al-Bukhari and Muslim on the authority of `A'ishah that the Prophet (pbuh) bought some foodstuff on credit from a Jewish trader and mortgaged his armor to him.[22]
3. The scholarly consensus (*ijma`*) of the ummah on the permissibility of selling on credit if the due date is known.

The Permissibility of Increasing the Prices of a Sale on Credit

When a buyer approaches an Islamic bank or a financial institution to finance a purchase on credit, the price's payment is usually deferred and, most commonly, paid in installments. However, the component of a sale on credit determines a profit margin, and the deferment ensures that this profit is collected over a period of time. The rate of return is thus guaranteed over a certain period of time. Traditional Islamic jurists permitted such a combination of increase with deferment and explicitly justified them. Some of them qualified this permissibility with conditions to ensure that other reasons for prohibition were not found.[23] The following few quotations from traditional jurists exemplify that increasing the price of a commodity for delay is acceptable:

1. Al-Kasani (Hanafi) in *Bada'i`i al-Sana'i`i*: "The price may be increased based on deferment."[24]
2. Ibn Rushd (Maliki) in *Bidayat al-Mujtahid*: "He has given time a share in the price."[25]
3. Al-Nawawi (Shafi`i) in *Al-Majmu`*: "Deferment earns a portion of the price."[26]
4. 'Ibn Taymiyah (Hanbali) in his *Fatawa*: "Deferment takes a share of the price."[27]

From the above discussion, we have tried to show that the credit price of a commodity can legally be more than its cash price. Accordingly, the validity of this price difference in sales on credit has been approved by the Islamic Fiqh Academy of the Organization of the Islamic Conferences (OIC) and the Shari`ah boards of all Islamic banks. This is tantamount to the acceptance of time value in the pricing of goods. What is prohibited is any addition to the commodity's price once it has been mutually agreed upon, because of any delay in its payment. Such a prohibition also suggests that Islam does not permit a fixed predetermined time value for money.

The Rationale for Legally Increasing the Prices in Credit Sales

The reasons behind the permissibility of increasing the price of a commodity in credit sales is that once the commodity is sold, even on credit, the purchaser retains its ownership on a permanent basis, and thus the seller has no right to reprice the sold commodity, since it no longer belongs to him/her. The scholarly opinions of famous exegetes and hadith scholars on the issue are mentioned below:

1. According to many exegetes, this notion is approved by the clear Qur'anic text: "Sale is similar to *riba*."[28] Their objection was that they used to increase the commodity's price in the original sale transaction for being based on deferred payment and it was treated as a valid sale. On the contrary, if they add to the due amount after the maturity date and the debtor was not able to pay, it was termed *riba*, while the increase in both cases is similar. This argument was specifically mentioned by Ibn Abi Hatim al-Razi (d. 327/938).[29] The Qur'an's reply was that "Allah has permitted trading and prohibited *riba*."[30]
2. Jalal al-Din al-Suyuti (d. 911/1507) and Ibn Jarir al-Tabari (d. 310/922) reported the similar situation of involvement with *riba* in which a person sold a commodity on credit; when the payment was due and the purchaser could not repay it, the price was increased and the time for payment was extended.[31]
3. Imam Tirmidhi (d. 279/857) reported that the Prophet (pbuh) forbade "two sales in a single contract." Islamic jurists have explained this to mean that, for instance, if a person tells someone: "I will sell this cloth for ten (dirhams) in cash and on credit for twenty (dirhams)" and, at separation, one price is not settled. If one of the two prices is settled, the sale is valid.[32] Al-Tirmidhi also added that if a seller says: "I sell the cloth for 10 (dirhams) cash and 20 (dirhams) on credit" and the buyer accepts one of these prices or says: "I will purchase it for 20 (dirhams) on credit," or the parties differ on the price, the sale is still valid.[33]

4. Muhammad al-Shawkani (d. 1834 CE) explains the above tradition of the Prophet (pbuh) by concluding that if the purchaser in such a situation says: “I have accepted it for 1,000 (dirhams) in cash or for 2,000 (dirhams) on credit,” there should be no problem. He added in this regard that the *`illah* (effective cause) for prohibiting two sales in one is nothing but the non-fixity of the price.[34]
5. Shah Wali Allah al-Dihlawi (d. 1176 CE), in his commentary on *Al-Muwatta'*, mentions that if the parties separate after having agreed on one price, the contract is valid. No difference of opinion exists in this regard.[35] Among contemporary scholars, the late Shaikh Abd al-Aziz ibn Baz, the Grand Mufti of Saudi Arabia, opined that an installment sale, wherein the credit price could be higher than the cash price, does not contradict the Shari`ah.[36]

Apart from these above interpretations of Islamic legal texts, Islamic jurists also have no objections to the different prices for a commodity bought with cash or on credit. Accordingly, they agree that this market practice is legitimate. It is quite natural that, in the market, a commodity’s credit price is higher than its cash price at a point of time, while in such contracts as *bay` al-salam* (the mode of trade practiced in Prophet’s time and that he allowed), its future price would be less than its cash price.

Al-Sarakhsi (d. 490 CE), an eminent Hanafi jurist, said that “selling on credit is an absolute characteristic of trade ..., we hold that selling for credit is part of the merchants’ practice and that it is the most favorable means for achieving the investor’s goal, which is profit.” He added that in most cases, profit can only be achieved by selling for credit and not for cash, and that “a thing is sold on credit for a larger sum than it would be sold for cash.”[37]

The following comments of Abraham L. Udovitch on al-Sarakhsi’s views are worth mentioning:

> This statement makes clear as to why there was a greater profit to be derived from credit transactions ... The difference in price between a credit and cash sale also helps explain why the prohibition against usury, to the extent that it was observed, did not exercise any crippling restriction on the conduct of commerce.[38]

The Shari`ah permits merchants to increase the price for a credit sale over that of a cash sale because a credit sale with a higher price constitutes the Qur’anic principle of “trading with mutual consent.”[39] Such trading benefits both the seller, who gets a higher price, and the buyer, who takes possession of the commodity before paying the price. Another supporting argument is that Allah permits all types of trading except for those sales that the Qur'an or the Sunnah clearly prohibit. And, neither source contains any evidence that selling a commodity on credit for a higher price is banned. A further argument is drawn from the jurists' unanimous agreement that the buyer in a *bay` al-murabahah* transaction has the option of withdrawal if the seller fails to mention that the commodity is bought on credit.

Reducing the Loan Amount for Early Repayment

Islamic jurists also debated the permissibility of reducing the loan amount in return for early repayment. The juristic consensus is that making such a reduction in the case of a deferred debt conditional on earlier repayment is not allowable. The imams of the four major jurisprudential schools have adopted this view. Such a reduction, however, was permitted by some of the Companions. This position was also developed by Ibn Taimiyyah (d. 728/1328), Ibn al-Qayyim, and, more recently, has been adopted by the OIC Fiqh Academy, which states:

> Reduction of a deferred debt in order to accelerate its repayment, whether at the request of the debtor or the creditor, is permissible under the Shari`ah. It does not constitute a forbidden *riba* if it is not agreed upon in advance and as long as the creditor-debtor relationship remains bilateral. If, however, a third party is involved, it becomes forbidden, since it becomes similar to the discount of bills.[40]

Those who allow this type of debt reduction base their argument on the premise that "reduction" is the opposite of *riba*, both linguistically and practically; it is forgiving part of the debt in return for a corresponding acceleration of payment before due time. But since this has not been approved unanimously, but rather disallowed by juristic consensus, such discounting cannot serve as a strong justification for increasing the price in return for deferring payment. If, however, we accept that a debt may be reduced in the case of earlier repayment, it would be more appropriate and more valid to increase the price of a commodity sold on credit. In this latter case, the increase is implicit and consequential to the contract of sale, whereas the debt discount is a separate transaction.

The Monetary Valuation of Time in Credit Transactions

The importance of time in conventional economic analysis derives not only from the presence of a time element in economic activity, but also from the impracticality of forcing all that is relevant to economics within one period of analysis. Besides, by varying the prices in the present and the future commodities, the money's value will vary at present and in the future, since its value is determined by the value of goods and services that it can purchase.[41] In dealing with the question of time, conventional economics does not consider a loan apart from a sale, for it views an installment sale or credit sale as a dual operation of sale-cum-loan. This notion of conventional economics regarding time valuation seems to be contrary to the Islamic perception of time in financial transactions. In the following sections, an attempt is made to examine Islamic jurisprudential provisions with relation to sales and lending.

The Monetary Valuation of Time in Sale Transactions

Traditional Islamic jurisprudence recognizes the value of time in many forms of trade and business transactions. All of the major Islamic legal schools recognize both the sale of specific goods (against credit) and the advance sale (with the immediate receipt of payment) of generic goods to be delivered on a specified future date as legitimate forms of contract. The former type of transaction, known as *bay` al-nasi'ah* or *bay` al-mu'ajjal* (i.e., delivered specific goods against future payment) may – and usually does – involve paying a price in excess of the goods' present value. The latter type, known as *bay` al-salam* (i.e., forward purchase of generically described future products with advance payment) usually involves a lower price than that of the same goods delivered at the time of payment. According to the Hanafis,[42] *bay` al-istisna`* (i.e., the commissioned manufacture of specific goods to be paid for when delivered) is also legitimate at the price agreed upon by the parties, even if it exceeds (as it usually does) the price of already manufactured goods of identical specifications. Not surprisingly, the price in a *bay` al-istisna`* contract would be higher than in a contract where the price is prepaid and the buyer is obliged to take the manufactured goods if they meet the agreed specifications. This form of contract is recognized by the Hanbalis[43] as *bay` al-mawsuf fi al-dhimmah*.

Credit sale contracts of the *bay` al-murabahah* type allow an Islamic financial institution or investor to purchase goods and then sell them to a client at a mark up, which includes the cost of the investor's service. This cost typically covers the cost of deferred payment under the interest-free credit that the investor provides to the buyer. According to some classical-era scholars, the buyer in such a transaction may prepay the price at a discount agreed upon with the seller (the investor) in recognition of the opportunity cost represented by the buyer's early payment. This "opportunity rate of capital" is, almost without controversy, legitimately (although tacitly) factored into the cost of leasing contracts (*ijarah*) as an offset for the profit forsaken by the seller, who no longer retains the leased goods. This is particularly the case in leases with deferred payment (*ijarah bi al-idafah*).

In downpayment (*`arbun*) contracts, which the Hanbalis consider legitimate, and in the practice of Islamic banks and financial intuitions, the buyer makes an immediate partial payment for a specific asset and agrees either to pay the balance at a specific future date or to forfeit the downpayment. Here again, the seller keeps this amount if the contract is cancelled, for it is considered an offset for the opportunity cost of having to hold the asset in its inventory during the agreed-upon period. Likewise, prepaying the deferred price of goods sold (or simply of an outstanding loan) against reducing the debt amount (*da` wa ta`ajjal* [prepay and reduce]) may, according to some earlier scholars, beginning with the Prophet's companion Ibn `Abbas, be a commendable arrangement to alleviate the debtor's burden and does not constitute *riba*.[44] Nonetheless, the consideration of money's time value is merely acceptable in respect of pricing the assets and their usufruct.

Apart from what has been discussed above, a barter trade involving the same type of certain fungible goods (e.g., dates for dates) that are of inequal value or involve delays in one item's delivery, constitutes a form of *riba* under traditional jurisprudence. This is based on a hadith of the Prophet (pbuh) that is limited to six specific goods (as mentioned earlier). Any inequality in bartered goods constitutes *riba al-fadl* (*riba* of excess), and any delay in delivery by one party (which, presumably, involves an assumed form of inequality) constitutes *riba al-nasi'ah* (*riba* of delay). Some Islamic jurists have limited the application of *riba al-fadl* to the unequal exchange of goods of the same quality and not only the same type and measure (of volume or weight).[45]

Prohibiting *riba* in the exchanges mentioned above does not reflect a lack of concern for time's value, this value being broadly recognized in many other forms of contract. Rather, the concern is for ensuring a fair exchange in transactions and eliminating all practices in which unjust enrichment may occur. This commonsense rationale was reached by Ibn Rushd al-Qurtubi,[46] who found the precise cause (*`illah*) for prohibiting this type of *riba* in the need to ensure equality of measure when exchanging goods of the same type in order to attain fair exchanges that could otherwise be reached through "the mathematical quality of measure" produced by money. Accordingly, he limited the prohibition to goods of similar uses that were measured by volume or weight, where money was not used as a medium of exchange.[47]

Within this framework, the economy would be based on the sanctity of contracts (a principle firmly established in the Qur'an), subject only to the overall limits of the few Islamic prohibitions that constitute the equivalent of public policy in modern legal systems. Basic elements of this policy are the interrelated prohibitions of *riba* and *gharar* (risk), the latter being found in contracts that create excessively uncertain risks concerning their object.[48] The Sunnah prohibits such risk, and some scholars liken it to gambling (*maysir*), which the Qur'an prohibits.

Ibn Qayyim al-Jawziyyah (691-751/1292-1350) wrote that prohibiting *riba* is necessitated by the concern to protect the weaker party in all lending and trade transactions. An underlying factor in its prohibition when confronted with the latter transactions is the desire to protect the poorest, those who lack money and so engage in barter. The invalidity of delayed barter in foodstuffs and other fungible commodities essential to human life (where markets are necessarily active and speculation over their prices could lead to hoarding and exploitation) was, therefore, in his view a necessary precautionary measure.

From the above discussion, we have tried to establish that price differentials compensating for the delay in fulfilling a party's contractual obligations or for the opportunity cost of the money used by a contractual party in providing goods (by sale or lease, by producing a commissioned asset or retaining it for future delivery, or by prepaying its deferred price) have been recognized as legitimate under traditional jurisprudence. In all of these cases, it is regarded as compensation for the value of time being included as an integral part of the price. This shows that Islamic jurists have permitted a difference in value due to the time element. However, this does not necessarily imply that they have permitted money to acquire a predetermined time value. Moreover, the difference in the same commodity's present and future values cannot be considered as permissible just because of the pure time element involved. In fact, this permission is likely to be simply a recognition of the effects of supply and demand, which may cause prices to vary at different time.[49]

The Monetary Valuation of Time in Lending Transactions

In the context of lending transactions, contemporary Islamic scholars (with a few exceptions) do not recognize the value of money in loans and commercial bank deposits. This is so much the case that *riba* has been generally translated to mean "interest on loans." Now, it is quite pertinent to discuss whether this absolute equation is justified according to the Qur'an and the Sunnah.

Islam validates "social service" loans among the well-to-do to help those who are in desperate need or compelled to ask for a loan. They are received either with condition of repayment or of being a beneficial loan without any worldly reward. However, Islam does not recognize any loan for deferral based on money's time value designed to benefit the lender. It only recognizes a *qard hasan* loan,[50] a loan that is defined as beneficial, benevolent, gratuitous, interest-free, beautiful, or a similar type of loan. This kind of loan is both common and universal among friends, relatives, and other loved ones. Islam also recognizes *`ariyah*, which is meant for loans for use, consumption, or exchange. The difference between these two types of loans is that whereas the jurists define *qard* as lending a fungible commodity that can be weighed, measured, and counted, and therefore involved transferring the commodity's ownership and required the return of a similar commodity at the time of maturity, *`ariyah* represents a temporary (but gratuitous) loan of non-fungibles that only transferred the property's usufruct.

The Qur'an prohibits *riba* in the strongest terms.[51] Verses in *Surat al-Baqarah*, which many Muslims believe were the last revealed, ask believers to "give up what remains of *riba*" without indicating that there were other forms included in such remnants.[52] The Qur'an requests lenders, rather than resorting to this explicitly prohibited form of *riba* in lending operations, to "delay until the time of ease" those repayments that debtors in difficulty cannot make on time and urges lenders to replacing such debts with charity "would be good for you (the lenders), if you but knew."[53] At the same time, the Qur'an requires debtors and contracting parties in general to fulfill their contractual obligations.[54] Any default by a solvent debtor is not only a breach of a contractual obligation, but is also considered a violation of his/her compact with Allah and, therefore, is a punishable sin.

The term *qard* normally covers the loan of money and other fungibles that are to be used by the borrower, who is expected to return goods of an identical description, and not the same goods that were borrowed, to the lender. If the same type of goods could not be found, Abu Hanifah (80-150/699-767) stated that the contract becomes null and void[55]; however, according to Abu Yusuf (113-87/731-803) and Muhammad al-Shaybani (132-89/757-804), his two main disciples, as well as the Hanbalis[56] and the Shafi`is,[57] it is valid. According to Abu Yusuf and many other Hanafis, the borrower (or the buyer in a credit sale) would, in such a case, be obligated to return the value of the borrowed (or purchased) goods, which is determined at the time of lending or sale; and, according to al-Shaybani, at the time of unavailability. If the money in question loses some of its value while on loan, the two major Hanafi scholars opined that the debtor would be obligated to return its original, not nominal, value at the time of the loan or sale (Abu Yusuf) or of its last depreciation (al-Shaybani). Interestingly, none of these views requires repayment according to the money's possibly lower value at the time of repayment.

In a loan transaction, the ownership of the borrowed money or other fungibles is transferred to the borrower on delivery; however, the lender maintains the right to demand repayment at any time. Therefore, a loan does not have a binding fixed term (except according to the Malikis[58]), unlike other types of debt-creating instruments for which the Qur'an requires that they be recorded in writing when they are "for a fixed term." Clearly, *qard* was meant to accommodate individual needs as opposed to serving as the basis of domestic or international commerce and investment. In fact, the Qur'an often uses *qard* in the context of charity. In fact, a hadith attributed to the Prophet (pbuh) states that "every *qard* is a charity (*sadaqah*)." In the other type of gratuitous loan – *`ariyah* – no transfer of ownership is involved, just as in the case of *wadi`ah* or *amanah*, where the owner entrusts another person to keep an asset until its return is requested, except that in the latter case the right of usufruct is not granted by the owner to the holder of the *wadi`ah* or *amanah*.

Noting the characteristics of *qard* and its semi-charitable nature, some contemporary scholars who adhere to the minority view (and have been strongly criticized for doing so), have defined it exclusively to cover loans designed to meet the borrower's consumption needs. Others even authorize *qard* only for "meeting the necessities of life." The time value of money on such loans is seen as *riba*, according to these views, as it clearly exploits the needs of the poor and contradicts the transaction's semi-charitable nature. According to this latter view, the matter is different when it comes to valuing time for interest related to postal saving accounts, a national bank's investment bonds, treasury bills, and deposits made for investment purposes.[59] In such cases, therefore, interest is not considered a prohibited *riba*, but rather a legitimate return on an investment earned by mutual agreement. This is consistent with commercial custom and the public interest or general welfare (*maslahah mursalah*) as currently conceived.

The explanation given by the majority of contemporary scholars and the Shari`ah boards of Islamic banks on the issue is that a pre-determined interest on any type of loan represents a risk-free gain, which is contrary to the principle that gain accompanies liability for loss (*al-ghunm bi al-ghurm*). Therefore, any lender must share in the loss just as he/she shares in the profit resulting from the use of his/her borrowed funds. This argument is not accepted however, by those who hold minority opinions on the ground that any agreement of a fixed-interest payment on loans does not, by itself, protect lenders from the risk of default on either the principal or the interest. The interest, as they believe, is simply meant to compensate the lender for the alternative uses or the opportunity cost of his/her capital in realization of time's monetary value. Given this, an interest-free loan or deposit denominated in current currencies leaves the lender or depositor worse off in real terms.

The minority scholars argue that, as per approved Shari`ah principles, predetermined rent includes a time value of money. Thus, a predetermined time value of money for loans and/or debts should, by analogy, also be permitted. However, the majority opinion states that this argument has no substantive basis, for the rent involved in leasing is calculated on the basis of the asset's ability to provide usufruct, which is, in principle, uncertain. Hence, it remains uncertain how much of money's time value is actually realized until the asset has completed its economic life. The lessor, as the owner of the leased assets, is also the owner of that asset's risk and reward. Furthermore, anything that cannot be used without consuming its corpus cannot be leased out like money, eatables, fuel, and other similar items.

The proponents of the minority view also argue that, by analogy with those insurance operations that are currently recognized as legitimate by most Islamic scholars and are supported (in its *takaful* form), by the OIC Fiqh

Academy, is relevant. They also observe that the consistency of such operations with the Shari`ah is based on the fact that the law of large numbers, modern actuarial techniques, and other insurance standards diminish the level of uncertainty to the point of virtually guaranteeing the payment of insured losses as well as making profit for any properly managed insurer. Any suspicion that the insured parties unduly exploit insurance companies in need sounds just as implausible as the suggestion that bank depositors unduly exploit their banks on the basis of need, unjust enrichment, or exposing banks to excessive risk. They also observe that those banks that decline to pay any return on time deposits clearly exploit depositors (who are often in greater need than the banks and their shareholders) and unjustly enrich themselves at the depositors' expense, contrary to the principle that "gain accompanies liability." As commercial banks make loans only to creditworthy borrowers, often after scrupulously reviewing their net worth, and ordinarily require collateral or other securities to ensure repayment, the suspicion that banks lend to poor clients in order to exploit their basic needs is not justified.

Summary and Conclusions

The Shari`ah has the genuine provision of converting money into assets on the basis of which one can measure its utility. While it admits the concept of money's time value to the extent of pricing in a credit sale, it does not endorse placing "rent" on money advances, as interest does in the case of credit and advances. As per the Shari`ah's rules, the aspect that matters is the conversion of, for example, $1,000 into an asset, in which case that $1,000 asset may be worth more or less in the future, a condition that will lead to a profit or a loss. This conversion into assets is subject to well-articulated rules governing profit/loss sharing, trading, and leasing.

This study leads to an important conclusion: While money's time value is acceptable in the case of pricing assets and their usufruct, it is not acceptable in the case of any addition to the loan's or debt's principal. It also indicates that the Shari`ah shows no inconsistency in viewing the legitimacy of a price increase when a commodity is sold on credit and the illegitimacy of placing a similar increase on loans. More precisely, its acknowledgment of time's value in credit transactions does not necessarily imply acknowledging the authority of providing an equivalent material compensation for this value in all cases. Time valuation is possible only in business and the trade of goods, not in the exchange of monetary values and loans or debts, as the Shari`ah considers a loan to be a virtuous act from which one cannot take any benefit. Therefore, no time value can be added to a loan's or a debt's principal after it has been created or the purchaser's liability has been stipulated. Prohibiting such an addition to a loan's principal suggests that Islam does not permit money to have a fixed, predetermined time value. In other words, if Islam can be said to have a concept of money's time value, it can be considered an *ex-post* one, for an *ex-post* return on capital in trade and business is the only source that recognizes money's pure time value.

Endnotes

1. The Arabic word *riba* is used throughout this study to mean interest and usury interchangeably.
2. See Qur'an, 2:275-79; see also 4:61.
3. The "time value of money" and the "monetary valuation of time," as well as "money's time value" and "time's monetary value," are used interchangeably throughout this study.
4. Anas Zarqa, "An Islamic Perspective on the Economics of Discounting in Project Evaluation," in *Fiscal Policy and Resource Allocation in Islam*, eds. Ziauddin Ahmed, Munawwar Iqbal, and M. Fahim Khan (Jeddah: International Centre for Research in Islamic Economics, King Abdul Aziz University and Islamabad: Institute of Policy Studies, 1983), 209.
5. Ibid., 219.
6. Ibid., 230-31.
7. M. Fahim Khan, "The Value of Money and Discounting in the Islamic Perspective," *Review of Islamic Economics* 1, no. 2 (1991): 43.
8. Ibid., 35.
9. Ibid., 37.
10. Monzer Kahf, "The Value of Money and Discounting in Islamic Perspective: Re-Visited," *Review of Islamic Economics* 3, no. 2 (1994): 33-34.
11. Ibid., 36-37.
12. Shamim A. Siddiqui, "Time Value of Money, *Bay Muajjal*, and *Bay Salam*," (1996). Available at: http://ravi.lums.edu.pk/aesm/papers/Time%20Value%20of%20Money%20%20%20%20%20Shamim%20Ahmad%20Siddiqui.doc.
13. Imtiaz Ahmed Pervez, "What is the Islamic View on Time Value of Money and How Does it Differ from That of the Traditional Ones?" *New Horizon* (London), no. 65 (July 1997): 8.
14. Ibid.
15. See, for example, Qur'an 17:29 and 104:2.
16. Pervez, "What is the Islamic View."

17. M. Taqi Usmani, "The Text of the Historical Judgment on Interest given by the Supreme Court of Pakistan," (2000). Available at www.albalagh.net/Islamic_economics/riba_judgement.pdf.
18. Ibid.
19. "Principles of Islamic Banking," *Nida'ul Islam Magazine*, no. 10 (November-December 1995).
20. Qur'an, 2:275.
21. Qur'an, 2:282.
22. Al-Bukhari, *Sahih al-Bukhari*, vol. 3, no. 101 (Cairo: n.d.). See also Muslim *Sahih Muslim*, vol. 4, no. 123 (Cairo: 1375 AH).
23. For example, two sales in one, a sale and a condition in one contract, and so on.
24. See Ibn Mas`ud al-Kasani, *Bada'i`i al-Sana'i`i fi Tartib al-Shara'i`i* (Cairo: 1327 AH), 5:178.
25. See Ibn Rushd, *Bidayat al-Mujtahid wa Nihayat al-Muqtasid* (Damascus: 1379 AH): 2:108.
26. See al-Nawawi, *Al-Majmu` fi Sharh al-Muhadhdhab* (Madinah: n.d.): 13:6.
27. See Ibn Taymiyah, *Majmu` al-Fatawa* (Riyadh: 1398 AH): 29:413, 499, and 525.
28. Qur'an, 2:275.
29. Ibn Abi Hatim, *Al-Tafsir* (n.p.: 1999): 2:545.
30. Qur'an, 2:275.
31. Al-Suyuti, *Lubab al-Nuqul* (n.p.: 1423 AH). See also al-Tabari, *Jami` al-Bayan fi Tafsir al-Qur'an* (Beirut: 1966): 6:8.
32. Al-Tirmidhi, *Al-Jami` al-Sahih (Sahih al-Tirmidhi)*, no. 1254, (Cairo: 1978).
33. Ibid., 2:236.
34. Al-Shawkani, *Nayl al-Awtar Sharh Muntaqa al-Akhbar* (Cairo: n.d.): 5:12.
35. Al-Dihlawi, *Al-Musawwa min Ahadith al-Muwatta'* (Delhi: 1293 AH): 2:28 and 29.
36. `Abd al-`Aziz ibn `Abd Allah ibn Baz, *Fatawa* (Riyadh: 1995), 142. (Urdu translation).
37. Al-Sarakhsi, *Al-Mabsut* (Beirut: 1978), 22:45.
38. Abraham L. Udovitch, *Partnership and Profit in Medieval Islam* (Princeton: 1970), 80.
39. See Qur'an, 2:282.
40. The Council of the Islamic Fiqh Academy, Resolution no. 64/2/7 on Installment Sale. Available at: www.islamibankbd.com/page/oicres.htm.
41. Ridha Saadallah, "Concept of Time in Islamic Economics," *Islamic Economic Studies* (Jeddah) 2, no. 1 (1994).
42. The Hanafis rely on reason and opinion, using analogy and equity as sources of the Shari`ah.
43. The Hanbalis are well known for their strict adherence to the Qur'an's text and the Sunnah.

44. The OIC Fiqh Academy's fatwa on the issue allows discounts to be extended to debtors for the prepayment of debts (*da` wa ta`ajjal*), as long as they are not agreed upon beforehand. See decision 66/2/7, which was taken at its seventh session, held in 1992. *Fiqh Academy Journal*, 217, 218.
45. Ibrahim F. I. Shihata, Some Observations on the Question of Riba and the Challenges Facing "Islamic Banking," *Internet Journal of the Centre of Energy, Petroleum and Mineral Law and Policy* (CEPMLP) (Dundee: 1998). Available at www.dundee.ac.uk/cemplp/journal/html/vol7-7.html.
46. Ibn Rushd (520/1126 - 595/1198), known in medieval Europe as Averroes, was a scholar of the Qur'anic sciences and the natural sciences (physics, medicine, biology, and astronomy), a theologian, and a philosopher.
47 Al-Qurtubi, *Al-Jami` li Ahkam al-Qur`an* (Beirut: 1966): 3-4:230.
48. *Gharar* technically means a transaction in which the object of contract or the commodity is not determined for both or either contracting party. Thus, the contract involves an element of risk and uncertainty. Hence, *gharar's* objective is the risk and deception that flow from the contracting parties' lack of consent when the thing is unknown and uncertain.
49. Khan, "Time Value of Money and Discounting," 37.
50. The word *qard* is derived from Arabic *qarad,* which means "to cut." It is called *qard*, as it cuts certain part of the lender's property by giving loan to the borrower. It also means "loan," which signifies surrender of the owner's right over capital to the user. *Hasan* originates from Arabic word *ihsan*, which means "performance of good deeds and kindness to others." Therefore, a *qard hasan* is a kind of gratuitous loan given to the needy for a set period without requiring any increment other than the original amount of the loan, in whatever forms due to money's time value or any other related factors. In Islamic banking practices, it refers to a credit or a loan that the debtor uses for a good purpose and later on pays back only the amount borrowed from the bank.
51. See Qur'an, 2:275-79; see also Qur'an, 4:61.
52. Ibid, 2:278.
53. Ibid., 2:280. The translated meaning of the complete verse is: "And if the debtor is in a hard time (i.e., has no money), then grant him time till it is easy for him to repay; but if you remit it by way of charity, that is better for you if you did but know."
54. The Qur'an repeatedly refers to the respect due to contractual obligations in a peremptory style, such as: "Be faithful to your pledge to Allah when you enter into a pact" (16:91) or "O you who have attained to faith! Fulfill your bonds" (5:1). The "bonds" (*`uqud*) which the Qur'an orders its followers to observe and fulfill include all types of contracts, whether bilateral, multilateral, or any unilateral obligation to which one binds himself or herself.
55. Abu Hanifah subscribed to the doctrine of the rationality and the beneficial nature of the Shari`ah's rules and made it a postulate of all his *fiqh* proposi-

tions. Therefore. out of all the systems of *fiqh*, the Hanafi system is the most in accord with rational principles.

56. The Hanbalis are considered quite strict and hold that only a literalist adherence to the Qur'an and Prophet's (pbuh) traditions lead to valid interpretations.
57. The Shafi`is are usually regarded as very sophisticated, in that they try to find a synthesis for all of the different approaches belonging to the other schools of thought. The founder of this tradition, Imam al-Shafi`i, is considered the founder of Islamic jurisprudence.
58. The Malikis require the Sunnah's strict application and minimize the role of opinion.
59. Linking them to *mudarabah* contracts, this view states that any interest on loans made as deposits in such cases is to be considered as a profit that can be predetermined.