3

Two Major Prohibitions: *Riba* and *Gharar*

We have shown in Chapter 2 that Islamic finance is a prohibition-driven industry. In this regard, the instigating factor for prohibition-based contract invalidation can almost always be attributed to the two factors labeled *riba* and *gharar*. We have also shown in Chapter 1 that mainstream contemporary scholars of economic analysis of the law consider such prohibitions of mutually agreeable financial transactions paternalistic and conducive to efficiency losses. The form-oriented nature of Islamic finance has done little to counter this claim for Islamic prohibitions.

Participants in the industry, especially ones who are not themselves devout Muslims, operationally respect Muslims' religious observance and devise financial solutions that avoid various prohibitions according to juristic opinion. This attitude has contributed further to the form-above-substance approach in Islamic finance: Lawyers and bankers are loath to challenge jurists' solutions as merely inefficient replications of what they had deemed forbidden transactions. To provide proper understanding of Islamic finance as practiced today, this chapter covers the economic substance that we believe was intended by the prohibitions. In later chapters we shall compare the economic substance of prohibitions and premodern nominate contract conditions in greater detail, comparing the form-oriented approach of contemporary Islamic finance to the substance-oriented classical jurisprudence.

Paternalism of Prohibitions

In the process of highlighting economic substance of prohibitions of *riba* and *gharar* in this chapter, we need to address two charges against prohibitions: paternalism and efficiency reduction. The paternalism charge is freely admitted, since devout Muslims – and indeed most religious people – do not shy away from a paternalistic image of God. In this regard, Islamic jurists and legal theorists have maintained that God never forbids anything that is good. When God forbids something that contains some good, legal theorists argued, it must be because of the potential for greater hidden harm.[1] For instance, the second of three Qur'anic stages of gradual prohibition of wine and gambling state explicitly: "They ask you about wine and gambling, say: 'Therein is great sin and some benefit, and their sin is greater than their benefit' " [2:219].

Human irrationality in the face of addictive activities such as drinking and gambling appears to be at the heart of this prohibition. This is suggested by the conjunction of wine and gambling in the cited verse as well as the final stage of categorical Qur'anic prohibition of addictive drinking and gambling activities: "O people of faith: Wine, gambling, dedication of stones, and divination with arrows are abominable works of the devil. Thus, avoid such activities so that you may prosper" [5:90].

More generally, one may consider four types of activities based on *net* benefit or harm: (1) beneficial ones that are apparently beneficial, (2) beneficial ones that are not clearly beneficial, (3) harmful ones that are apparently harmful, and (4) harmful ones that are not apparently harmful. No injunctions or prohibitions are needed for the first and third types of activities, whereas injunctions to perform the first type of acts, and prohibitions against the fourth, are necessary. In this regard, the verse [2:219] clearly explained that drinking and gambling belong to the fourth category: Humans may be lured by the apparent benefits and thus lose sight of the greater harm.

This is easily explained in the context of drinking, which may not be harmful in small measure, but can be extremely dangerous because of human irrationality in the face of addictive and intoxicating substances. The intoxication effect was highlighted in the first stage of prohibition of wine: "O people of faith, do not approach prayers while you are intoxicated" [4:43], wherein gambling was not mentioned. The addictiveness effect and resulting tendency to create acrimonious and irresponsible behavior were highlighted by conjoining wine and gambling in the two subsequent stages of prohibition in [2:219] and [5:90].

Bounded Rationality and Paternalism

In the case of wine and gambling, the Qur'anic solution was complete avoidance thereof, since those activities are not essential. In contrast, transfers of credit and risk are at the heart of finance, without which an economic system cannot function. The Islamic legal solution in this case was to impose restrictions on the means of transferring credit and risk, through prohibitions of *riba* and *gharar*. In this chapter I shall argue that – in finance – the forbidden *riba* is essentially "trading in credit," and the forbidden *gharar* is "trading in risk," as unbundled commodities.

In other words, Islamic jurisprudence uses those two prohibitions to allow only for the appropriate measure of permissibility of transferring credit and risk to achieve economic ends. As many observers and practitioners in financial markets will testify, trading in credit and risk (perfected through derivative securities) is as dangerous as twirling a two-edged sword. Although those vehicles can be used judiciously to reduce risk and enhance welfare, they can easily entice otherwise cautious individuals to engage in ruinous gambling behavior. While financial regulators seek to limit the scope of credit and risk trading to prevent systemic failures, Islamic jurisprudence introduces injunctions that aim also to protect individuals from their own greed and myopia.

What to Forbid? Balancing Benefits and Risks

The objective of balancing economic freedom (allowing more contracts to enable more economic activities) with risk of abuse (if too much freedom is allowed) is made clear by the fact that some contracts that contain *riba* and/or *gharar* are permitted in the canonical and juristic texts. This is the case with prepaid forward sales (*salam*), which contain significant *gharar* (unnecessary risk and uncertainty), since the object of sale typically does not exist at contract time. However, this *gharar* is deemed minor relative to the potential gains from financing agricultural and other activities through *salam*. Thus, this benefit consideration overruled the contract's invalidity based on *gharar*, as would be dictated by analogical reasoning alone. Similarly, credit sales can easily be used as vehicles for *riba*, as shown in the previous chapter (e.g., through same-item sale-repurchase, either as ʿ*ina* or *tawarruq*). In both of those examples, the benefits from allowing production of nonexistent goods through *salam*, and consumption of goods against claims to future income through credit sales, respectively, outweigh the potential dangers of abuse. Hence the contracts were permitted despite the corrupting factors.

The discussion in Chapter 2 of various juristic opinions on ʿ*ina* (same-item sale-repurchase) is illustrative of juristic cost-benefit analysis. Obviously, one cannot forbid all spot sales or credit sales, since that would lead to economic ruin. On the one hand, jurists unanimously forbid same-item sale-repurchase if the second sale is stipulated in the first.[2] On the other hand, if the two transactions are executed under separate contracts, some jurists forbade the practice to prevent abuse (the Maliki juristic rule of preventing means of circumventing the law, known as *sadd al-dharaʾiʿ*), whereas others (e.g., Al-Shafiʿi, who restricted juristic reasoning to analogy) felt compelled to deem the practice valid. Of course, in Islamic finance, jurists may be asked to validate each contract separately, without explaining the entire financial structure for which they will be used.

This example is indeed central for understanding our subsequent discussion of contemporary Islamic jurisprudence and finance. By definition, almost all novel financial transactions, and variations thereof that were considered by jurists on Islamic banks' Shariʿa boards, are sufficiently complex to generate multiple juristic opinions based on analogy, prevention of abuse, benefit analysis, and the like. Variations in opinions allow Islamic financial providers to exercise price discrimination by segmenting the market according to degree of conservatism, thereby extracting greater Shariʿa arbitrage rents from more conservative customers.

3.1 The Prohibition of *Riba*

The three-letter past-tense root of the term *riba* is the Arabic verb *raba*, meaning to increase.[3] Therefore, jurists defined the forbidden *riba* generally as "trading two goods of the same kind in different quantities, where the increase is not a proper compensation."[4] Naturally, the lexical meaning of the term (which covers increase of all types) is not the object of prohibition. Thus, numerous jurists have analyzed the juristic meaning of the forbidden *riba* over the centuries. While most contemporary jurists have denied any uncertainty about the juristic definition of forbidden *riba*, studies such as the two in Rida (1986) clearly show that premodern and contemporary jurists have expanded the definition of the forbidden *riba* considerably beyond its original domain.[5]

In this regard, the distinction between legitimate compensations and forbidden *riba* is the most fundamental distinguishing feature of Islamic finance, as a prohibition-driven industry. However, the distinction – as defined by contemporary jurists – is exploited mostly by adopting premodern forms rather than mechanisms that ensure fairness of contract pricing. In this regard, understanding the canonical prohibition of *riba*, and contemporary interpretations thereof, is central to understanding the industry as it exists today, as well as any likely alternative "Islamic" structure. We thus turn now to the task of providing an economic analysis of the canonical texts on *riba* and the classical juristic analyses thereof. We begin by considering the canon.

Canonical Texts on Riba

There are two main types of *riba* recognized by all scholars, with Shafiʿi scholars providing a further refinement of the second type. The first type is called *riba al-nasiʾa*.[6] The worst form of this *riba*, known as *riba al-jahiliyya* (practiced in pre-Islamic Arabia), was strictly forbidden in the Qurʾan, to the point that Imam Malik is reported to have described its prohibition as the severest one in Islam.[7]

The first mention of *riba* in the Qurʾan was in Makka, and it discouraged collection thereof, without explicitly prohibiting it: "That which you lend to increase in the property of others will not increase with God; but that which you give out in charity, seeking God's pleasure, it will surely multiply" [30:39]. The first verses regarding *riba* that were revealed in Madina only forbade pre-Islamic *riba* of Arabia, whereby interest was charged at the maturity of debts from interest-free loans or credit sales, and compounded at later maturity dates. Thus, the principal due on the debtor was described in the Qur'an as "*riba* doubled and multiplied" [3:130].[8] Among the very last Qur'anic verses to be revealed, the verses [2:275–9] ordered Muslims to abandon all remaining *riba* (presumably of the same form defined in [3:130]), otherwise to expect a war from God and His Messenger.

Main Juristic Taxonomies of Riba

Most jurists have expanded the strict Qur'anic prohibition of pre-Islamic *riba* to cover all forms of interest-bearing loans, subsumed under the term *riba al-nasi'a*. They provided three explanations of the rationale for this prohibition: (1) one might potentially exploit poor debtors who need to borrow money or commodities, (2) trading money may lead to fluctuations in currency values and monetary uncertainty, (3) trading foodstuffs for larger amounts of future foodstuffs would lead to shortages in spot markets for those foodstuffs (presumably because many traders would withhold the goods in the hope of getting more in the future!).[9]

None of those explanations seems particularly convincing. After all, a usurer can equally easily exploit a needy debtor by selling him a property of market value $100, say, for a deferred price of $1,000, without violating the rules of *riba* as envisioned by jurists. The second explanation seems equally weak on economic grounds. Relative prices of commodities may fluctuate based on supply and demand changes, regardless of the possibility of extending interest-based credit.

Finally, the logic of the argument on foodstuffs is clearly defective: Traders prefer deferment only as long as the terms of trade exceed their time preference and vice versa – indeed, that is how implicit interest rates would be determined in equilibrium, based on market participants' rates of time preference. Moreover, if credit trading in foodstuffs could cause the problems of which classical jurists spoke, those same problems would result from selling deferred claims on foodstuffs for an immediate monetary price, or selling foodstuffs for deferred monetary prices, both of which are allowed by jurists with implicit compensation for time value. In fact, jurists of all major schools, declaring that "time has a share in the price," recognized the legitimacy of seeking compensation for time value in credit and *salam* sales, including where the objects of sale are foodstuffs.[10]

The second category of *riba* recognized by jurists is called *riba al-fadl* (the *riba* of increase, also called *riba al-Sunna*). It prohibits trading goods of the same genus and kind in different quantities, based on a valid Prophetic tradition: "Gold for gold, silver for silver, wheat for wheat, barley for barley, dates for dates, and salt for salt, like for like, hand to hand, and any increase is *riba*."[11] Non-Zahiri jurists agreed that those six commodities were given only as examples. Hanafi jurists extended the prohibition to all fungible goods measured by weight or volume, whereas Shafiʿi and Maliki jurists restricted it to monetary commodities (gold and silver) and storable foodstuffs.

In our discussion of currency exchanges (*sarf*), we shall discuss Prophetic traditions that dealt exclusively with spot- and deferred-price trading of gold for gold, silver for silver, and gold for silver. Those traditions explicitly forbade a standard trick used by Medici bankers to circumvent the early Catholic Church's prohibition of interest, by subsuming interest rates in exchange rates.[12]

Riba Is Not the Same as Interest

There are reports that some prominent early companions of the Prophet, including the brilliant jurist ʿAbdullah ibn ʿAbbas, did not recognize the strict prohibition of *riba* that does not involve a time factor. He, Usama ibn Zayd ibn Arqam, Ibn Jubair, and others ruled that the only type of definitively forbidden *riba* is that which contains a time factor (*riba al-nasiʾa*), even citing a Prophetic tradition to that effect: "There is no *riba* except with deferment."[13] Later reports by Jabir suggest that this tradition referred to trading different goods, such as gold for silver or wheat for barley, and that Ibn ʿAbbas reversed his opinion and joined the majority opinion of prohibition of *riba al-fadl*.[14]

Jurists listed two reasons for the prohibition of *riba al-fadl*, which does not include a time factor: (1) spot trading of the same commodity for different quantities can be easily combined with credit sales to bring about the same effect as deferment *riba* (hence *riba al-fadl* is forbidden to prevent circumvention of the law – *saddan lil-dharaʾiʿ*), and (2) such trading includes excessive *gharar* (avoidable risk and uncertainty), since neither party knows whether the trade is beneficial or harmful to them.[15] Ibn Rushd based his central analysis of *riba*, on which we shall elaborate below, on the latter explanation of the prohibition (uncertainty regarding equity in exchange).

The inclusion of *riba al-fadl* under the general heading of forbidden *riba* is very important for understanding the economic substance of the prohibitions. However, most contemporary jurists and scholars of Islamic finance wish to exclude discussions of this topic, precisely to continue the mistaken one-to-one rhetorical association of "*riba*" with "interest." In fact, equivalence of the two terms is far from appropriate.

First, even the most conservative contemporary jurists do not consider all forms of what economists and regulators call interest to be forbidden *riba*. A simple examination of *riba*-free Islamic financial methods such as mark-up credit sales (*murabaha*) and lease (*ijara*) financing shows that those modes of financing are not "interest-free." Indeed, truth-in-lending regulations in the United States force Islamic and conventional financiers to report the implicit interest rates they charge their customers in such financing arrangements. Thus, the practice of Islamic finance itself illustrates the fact that some forms of interest (e.g., in credit sales and leases) should not be considered forbidden *riba*.

Conversely, the prohibition of *riba al-fadl* illustrates definitively that there are forms of forbidden *riba* (illegitimate increase in exchange) that do not include interest. Indeed, as some Hanafi jurists have noted, the six-commodities Prophetic tradition cited in the previous section stipulated two conditions: "hand to hand" and "in equal amounts." Thus, if one traded an ounce of gold today for a deferred price of one ounce of gold next year, the transaction would still be deemed *riba*, despite the zero interest rate, because of violation of the "hand-to-hand" restriction. Those Hanafi jurists reasoned as follows: An ounce of gold today is clearly worth more than an ounce of gold in one year (recognizing the time value of money). Thus, one would never trade an ounce of gold today for an ounce of gold next year, unless one is getting something else in return (which is not disclosed in the sales contract). Whatever that extra benefit may be, they argued, it constitutes *riba*. Our subsequent analysis of the prohibition of *riba* – in terms of ensuring economic efficiency and equity in exchange – would simply explain the prohibition at zero interest based on the same general principle, applied to any other interest rate: How do we know that zero percent is the fair rate in exchanging gold today for gold in one year?

Economic Substance of the Prohibition of Riba

In his seminal work on comparative jurisprudence, the Maliki jurist, judge, and philosopher Ibn Rushd (also known as Averroës, d. 595 A.H./1198 C.E.) adopted the Hanafi generalization of rules of *riba* (based on the six-commodities tradition) to all fungible commodities, based on the following economic analysis:

> It is thus apparent from the law that what is targeted by the prohibition of *riba* is the excessive inequity it entails. In this regard, equity in certain transactions is achieved through equality. Since the attainment of equality in exchange of items of different kinds is difficult, we use their values in monetary terms. Thus, equity may be ensured through proportionality of value for goods that are not measured by weight and volume. Thus, the ratio of exchanged quantities will be determined by the ratio of the values of the different types of goods traded. For example, if a person sells a horse in exchange for clothes ... if the value of the horse is fifty, the value of the clothes should be fifty. [If the value of each piece of clothing is five], then the horse should be exchanged for 10 pieces of clothing.
>
> As for [fungible] goods measured by volume or weight, equity requires equality, since they are relatively homogenous, and thus have similar benefits. Since it is not necessary for a

person owning one of those goods to exchange it for goods of the same type, justice in this case is achieved by equating volume or weight, since the benefits are very similar.[16]

Thus, Ibn Rushd articulated the conditions for efficiency in exchange: that the ratio of traded quantities should be determined by the ratio of prices, and the latter should be equal to the ratio of [marginal] utilities.[17] This restriction was never made part of the rules of *riba*, since monitoring market prices of all goods would be a very tedious task. Thus, the prohibition is imposed only for equality in exchanging fungible goods, with the understanding – as suggested by Ibn Rushd – that if significant quality differences existed, one would avoid directly exchanging low-quality goods for high-quality ones of the same kind in barter.

A number of Prophetic traditions clearly support the notion of equity through equality when trading fungibles and illustrate the alternative of avoiding direct barter in cases of different good qualities. In this regard, Bilal and Abu Hurayrah narrated that a man employed in Khaybar brought the Prophet some high-quality dates. The Prophet inquired if all Khaybar dates were similar to that kind, and the man told him that they traded two or three volumes of lower-quality dates for one volume of higher-quality ones. The Prophet told him – angrily – never to do that again, but to sell lower-quality dates and use their proceeds to buy the higher-quality ones.[18]

Equity and Efficiency through Marking to Market

Selling the first type of dates (at the highest available market price), and buying the other type (for the lowest available market price), ensures that exchange takes place at the ratio dictated by market prices. Naturally, traders would trade only at that ratio if they valued the marginal units differently. Allowing for diminishing marginal utilities, whereby the buyer of each type of dates will value successive marginal units less, trading eventually halts by equating the ratio of marginal utilities to the ratio of market prices. Hence (Pareto) efficiency in exchange is attained, as dictated by contemporary neoclassical economic theory. Thus, the injunction against this type of *riba al-fadl* can be readily seen as a mechanism that precommits those who observe the prohibition to collection of information about market conditions, and marking terms of trade to market prices. This protects individuals against engaging in disadvantageous trades and enhances overall exchange efficiency. In this regard, notice that trading at any ratio that deviates from that of market prices will – by necessity – be disadvantageous to one party. Hence, justice and efficiency both dictate following this mark-to-market approach to establishing trading ratios.

Extending this logic to exchange over time (through credit sales, leases, or other transactions) is not difficult. In the context of credit sales and lease-to-purchase financing, the substantive prohibition of *riba* – aiming to ensure equity in exchange – dictates that credit in such transactions must be extended at the appropriate interest rate. In this regard, conventional finance has played a very important role for contemporary Islamic finance, by determining the market interest rates for various borrowers, based on creditworthiness and security of the posted collateral.

Here, benchmarking the implicit interest rate in Islamic credit sales and lease-to-purchase transactions to conventional interest rates is quite appropriate. Indeed, if, for instance, the market interest rate for a particular borrower and particular collateral was 6 percent, but customer and financier agreed on a credit sale at 10 percent implied interest, one would object that this clearly violates the spirit of Islamic prohibition of *riba*, even if it uses a sale-based ruse to stay clear of the ancient forbidden form. In this regard, Al-Misri (2004) has argued that Islamic banks are well advised to abandon characterizing their mark-up in credit sales as "profit," and list it instead as "interest," since the former is potentially unlimited whereas the latter is capped by various contemporary anti-usury laws that protect those in need of credit against predatory lenders.

Islamic Finance: Form and Substance Revisited

Why, then, would we need an Islamic finance? Why would we go through the trouble of forcing an Islamic bank to buy a property first and then sell it to the customer on credit if the actual objective can be achieved more directly, through a secured lending transaction? Those questions must be answered in two steps: The first step is recognition that individuals engage in myopically excessive borrowing behavior if left to their own devices. Adherence to religious law can serve as an effective precommitment mechanism to ensure that individuals do not abuse the availability of credit to their own detriment.

The second step is recognition that adherence to religion has been historically ensured through adherence to forms, equally in the areas of ritual and transactions. In this regard, classical jurists developed contract forms and conditions thereof in a manner that encapsulated the spirit of the law to the best of their ability. When contemporary jurists attempt to help Muslims adhere to the spirit of the law, they feel safest working within the formal and informal methodologies of Islamic jurisprudence. We have seen in earlier chapters that Islamic jurisprudence is in fact a common-law system (if dressed in the garb of canon law), with emphasis on precedent and analogy. The resulting contemporary process of adapting classical contract forms to modern needs necessarily produces interim inefficiency.

This inefficiency would be tolerable only if we ensure that the spirit of the Law that gave rise to adopted forms is protected. Otherwise, it would be shameful merely to copy or adapt inefficient historical forms and squander the substance of Islamic law. Ideally, contemporary jurists would develop a modern jurisprudence that embodies the substance of premodern laws within the context of contemporary legal and regulatory frameworks. This ideal may be approachable in the long term but seems impossible in the short term. In this regard, earlier jurists had the luxury of seeking efficiency by adopting Roman or other legal forms. However, later jurists have to work under the heavy burden of sacred history, including unreasonable admiration of the presumed timeless wisdom of their predecessors. Thus, practical Islamic solutions for the short to medium term may abandon premodern forms only gradually.

Multiple Paternalistic Parties

Earlier in this chapter, we discussed the paternalistic nature of prohibitions in general. We now turn to the prohibition of *riba* in particular, which aims substantively to protect individuals from getting excessively indebted, as well as paying or receiving unfair compensations for receipt or extension of credit. Naturally, one might argue that secular regulators also strive (paternalistically, one might add) to prevent individuals from borrowing excessive amounts, or falling prey to unfair predatory lending. However, regulators care primarily about the general health of the financial system – their concern about financial health of specific individuals being secondary at best. Thus, regulators may allow certain types of transactions that are hazardous to a few individuals, based on the tradeoff between that particular group's well-being (which is not their primary mandate) and overall systemic well-being (e.g., economic growth).

A second group of economic agents who aim to prevent excessive indebtedness are bankers, who use debt payments relative to income and other criteria for credit extension. However, bankers and loan officers work primarily for financial corporations that care little about systemic or individual financial health and care mostly about their own profitability. Thus, they would generally allow large numbers of customers to borrow excessively if the expected rate of repayment remains sufficiently high to ensure profitability.

Human Time Inconsistency and Precommitment Solutions

Thus, restrictions imposed by regulators and financial professionals require supplementary protections for individuals against their own irrational behavior – a function that can be fulfilled by religious law. In this regard, it is well documented in psychological and behavioral economic research that humans exhibit fundamental forms of irrationality in time preference, against which precommitment mechanisms (including those based on religion) can protect them. For instance, most individuals would prefer \$100 today over \$105 in one year, but prefer \$105 in twenty years over \$100 in nineteen. Those and other "time preference anomalies" suggest that individuals will be "dynamically inconsistent" in their saving, spending, and borrowing behavior.[19]

The conclusion of this research is that individuals tend to discount the immediate future (e.g., one year from now) much more severely than they discount over a similar period later in the future (e.g., between nineteenth and twentieth years). Thus, in the previous example, an interest rate of 5 percent looks low for the current year, but sufficiently high for an arbitrary year further in the future. An individual exhibiting this type of time preference will choose to borrow $100 today, planning (genuinely) to save in the future and pay off his loan. However, once the future arrives, present consumption is again valued substantially more than future consumption, and the individual borrows even more, under the illusion that he will later save enough to pay off both loans. The debt cycle never ends. Some of those individuals may experience sufficiently fast growth in their incomes, so that they can eventually pay off their debts without increasing their saving rates. However, many other debtors may get buried under a debt cycle and eventually have to declare personal bankruptcy, which has become a mini-epidemic in some Western societies.

Good Loans and Bad

Why, one may wonder, would banks extend those bad loans that lead to bankruptcies? The answer is that loans are very rarely bad at their inception. When economic conditions are favorable, many borrowers experience income growth, and banks have an incentive to continue lending to them, since the number of defaults and bankruptcies will be too small to affect their profits. Sometimes, for example, in Asia during the 1990s, borrowed funds are invested in real estate and other fast-appreciating assets, making loans that are secured by those overpriced assets seem less risky than they are in reality. As economic conditions worsen, and asset market bubbles burst, too many of those loans may turn bad simultaneously, threatening the financial system. Hence, regulators impose restrictions to ensure that banks' operations do not threaten the system, albeit in a reactive manner that often fails to protect against later banking crises. In contrast, religious law aims to protect each and every individual by ensuring that they do not borrow excessively.

For instance, consider a Muslim customer who wishes to finance a home purchase through lease financing. If the housing market in question happens to be experiencing a speculative bubble, that fact should become clear to the customer by comparing the "rent" he would have to pay his Islamic bank (which is benchmarked to mortgage market interest rates) to the actual market rent of the property. If mortgage payments are excessively high relative to rent, that is generally an indication that the customer is about to borrow an excessive amount of money relative to the long-term value of the property serving as collateral. Thus, marking the interest rate to market lease rates should prevent the individual from engaging in excessive borrowing to purchase that property. In the process, the customer is also assured that the implicit interest rate he pays is marked to the market-determined time value of the property serving as security for the debt.

If such considerations are ignored, the Islamic bank in this example would merely allow the customer to become "house-poor" or bankrupt, but do it "Islamically" through partial adherence to classical contract forms. That would be shameful abuse of religion and finance. Consequently, although we have accepted the necessary inefficient Islamic financial adherence to classical contract forms, it is equally if not more important to ensure adherence to the substance of Islamic law, which premodern jurists attempted to enshrine in those classical forms.

Digression on Loans in Islamic Jurisprudence

We have thus seen that the classical prohibition of *riba* in finance refers to the unbundled sale of credit, wherein it is difficult to mark the interest rate to market. In this regard, the simplest form of an unbundled credit sale is an interest-bearing loan. Indeed, if loans were viewed as commutative financial contracts (i.e., if repayment of the loan were viewed as compensation for the lent amount), then even interest-free lending would have been deemed forbidden *riba*. Al-Qarafi argued in *Al-Furuq* (a legal-theory book dedicated to explaining juristic distinctions) that lending is exempted from the rules of *riba* because of its charitable nature. Religiously, one who extends a loan does not seek repayment as the compensation, but rather seeks to give the time value of lent money, or usufruct of lent property, in charity.[20]

Thus, the Prophet's companions and early jurists said that they preferred to lend a coin, have it repaid, and lend it again, rather than to give it away in charity. Goodly loans have direct charity built in, as a needy debtor would be absolved if he cannot pay. On the other hand, a needy borrower retains dignity relative to recipients of explicit charity, through the possibility of repaying the principal. Even in case of repayment, the lender gains religious credit through sacrificing the time value of his property, and proving his willingness to sacrifice the property itself if necessary. Hence, Islamic jurisprudence excluded lending from the arena of finance, to retain its goodly charitable nature. This is possible since all the financial ends that can be served through commercial lending can be equally if not better served through other forms of commutative contracts (such as sales, leases, and the like).

3.2 The Prohibition of *Gharar*

We have explained prohibitions in terms of boundedly rational human behavior, in particular with regard to highly addictive behavior such as drinking and gambling. In particular, we have argued that the prohibition of *riba* may very well be based on the potentially addictive nature of borrowing and living beyond one's means. In this section we deal with the prohibition of *gharar*, which was characterized by prominent jurists in light of its similarity to gambling. In this regard, the late Professor Mustafa Al-Zarqa defined the forbidden *bayʿ al-gharar* as "the sale of probable items whose existence or characteristics are not certain, the risky nature of which makes the transaction akin to gambling."[21]

Numerous historical examples of forbidden *gharar* sales are enumerated in classical jurisprudence books.[22] Generally speaking, *gharar* encompasses some forms of incomplete information and/or deception, as well as risk and uncertainty intrinsic to the objects of contract. Since complete contract language is impossible, some measure of risk and uncertainty is always present in contracts. Thus, jurists distinguished between major or excessive *gharar*, which invalidates contracts, and minor *gharar*, which is tolerated as a necessary evil. In his seminal paper summarizing classical opinions on *gharar* and applying them to contemporary transactions, Professor Al-Darir listed four conditions for *gharar* to invalidate a contract.[23]

First, *gharar* must be excessive to invalidate a contract. Thus, minor uncertainty about an object of sale (e.g., if its weight is known only up to the nearest ounce) does not affect the contract. Second, the potentially affected contract must be a commutative financial contract (e.g., sales). Thus, giving a gift that is randomly determined (e.g., the catch of a diver) is valid, whereas selling the same item would be deemed invalid based on *gharar*.[24] This condition is extensively used in designing *takaful* (cooperative insurance) as an alternative to commercial insurance solutions. *Takaful* companies, stockholder and mutually owned, use noncommutativity structures of voluntary contribution (*tabarruʿ*) and agency (*wakala*), respectively, to resolve the *gharar* problem on the basis of which most contemporary jurists forbade commercial insurance. We shall discuss those structures in greater detail in Chapter 8.

Third, for *gharar* to invalidate a contract, it must affect the principal components thereof (e.g., the price or object of sale). Thus, the sale of a pregnant cow was deemed valid, even though the status of the calf may not be known. Indeed, the price of a pregnant cow would be higher than the price of the same cow if it were not pregnant. However, the sale of its unborn calf by itself is not valid based on *gharar*. In the first case, the primary object of sale is the cow itself, whereas in the latter case the object of sale is the unborn calf, which may be still-born.

Finally, if the commutative contract containing excessive *gharar* meets a need that cannot be met otherwise, the contract would not be deemed invalid based on that *gharar*. A canonical example is *salam* (prepaid forward sale), wherein the object of sale does not exist at contract inception, giving rise to excessive *gharar*. However, since that contract allows financing of agricultural and industrial activities that cannot be financed otherwise, it is allowed despite that *gharar*. Similarly, while contemporary jurists forbade commercial insurance based on excessive *gharar* and availability of noncommutative (*takaful*) alternatives, they currently allow *takaful* companies to deal with conventional reinsurance companies, since re-*takaful* alternatives are not yet available.

Definition of Gharar

The distinction between major and minor *gharar*, as well as considerations in the fourth criterion for *gharar* to invalidate contracts, suggests a strong cost-benefit analysis as the foundation for prohibition. Indeed, a number of classical jurists explicitly highlighted this central cost-benefit analysis:

> [The Prophet's] prohibition of *gharar* sales (*bay*ʿ *al-gharar*) render such sales defective. The meaning of "*gharar* sale," and God knows best, is any sale in which *gharar* is the major component. This is the type of sale justifiably characterized as a *gharar* sale, and it is unanimously forbidden. However, minor *gharar* would not render a sales contract defective, since no contract can be entirely free of *gharar*. Consequently, scholars differ in opinion regarding which contracts are thus rendered defective, based on their assessment of the extent of *gharar* in the contract. Thus, each scholar would invalidate a contract if he deems its *gharar* component substantial, and would otherwise declare the contract valid if the *gharar* is deemed minor.[25]

> Scholars said that the criterion for invalidity of a contract based on *gharar*, or validity despite the existence of *gharar*, is this: If necessity dictates allowing *gharar*, which thus cannot be avoided without incurring an excessive cost, or if *gharar* is trivial, the sale is deemed valid, otherwise it is deemed invalid. . . . Thus, differences in opinion among scholars are based on this general principle, where some of them render a particular form of *gharar* minor and inconsequential, while others render the same form substantial and consequential, and God knows best.[26]

> In this regard, the corrupting factor in *gharar* is the fact that it leads to dispute, hatred, and devouring others' wealth wrongfully. However, it is known that this corrupting factor would be overruled if it is opposed by a greater benefit.[27]

Perhaps the best literal and juristic translation for "*bay*ʿ *al-gharar*" is "trading in risk."[28] In this regard, the *Encyclopedia of Islamic Jurisprudence* also lists cheating (*tadlis*) and fraud (*ghubn*) as special cases of *gharar*.[29] Thus, *gharar* incorporates uncertainty regarding future events and qualities of goods, and it may be the result of one-sided or two-sided and intentional or unintentional incompleteness of information.

The factor that is common in all those categories is significant (possibly unquantifiable) risk and uncertainty. The possibility of unanticipated loss to at least one party may be a form of gambling or may lead to ex post disputation between contracting parties. The prohibition of *bayʿ al-gharar* (the sale of *gharar*) may thus be seen as a prohibition of the unbundled and unnecessary sale of risk. Of course, the most extreme form of unbundled sale of risk is gambling: paying a predetermined price for some unproductive game of chance (e.g., spinning a roulette wheel and winning a larger sum of money if the ball falls on black). Various forms of *gharar* are assessed based on proximity to this extreme form.

Economic Substance of Prohibition

The most significant developments in finance over the past three decades have been in the area of separating various financial credit and risk components for accurate pricing. This was accomplished through advances in securitization and development of financial derivatives. We admitted earlier that finance (Islamic or otherwise) is about allocation of credit or risk. Moreover, we have argued that the two main prohibitions in Islamic jurisprudence, those of *riba* and *gharar*, are best characterized as trading in unbundled credit and trading in unbundled risk, respectively. For the case of *riba*, we argued that disallowing unbundled trading of credit can protect individuals who are vulnerable to excessive borrowing from falling into debt cycles and ensured marking interest rates to market. Similarly, it can be seen that the prohibition of trading unbundled risk aims to protect individuals from exposure to excessive financial risk or payment of mispriced premia to eliminate existing risks.[30]

Bounded Rationality in the Face of Risk

Starting with the early experiments by Allais in 1953, behavioral economists and psychologists have documented a number of basic patterns in human behavior under risk and uncertainty. Kahneman and Tversky (1979) summarized the most important patterns under four headings, the most important being (1) the excessive weight humans place on events considered certain, relative to ones that are highly probable, (2) the overweighting of losses compared to gains, and (3) risk-loving behavior over losses. A recent literature has emerged in finance, using those documented idiosyncrasies of human behavior under risk to provide explanations for a host of otherwise puzzling human and market behaviors.[31]

The above-mentioned idiosyncrasies drive individuals to take too much risk, and then to pay too much for insurance. For instance, when one buys a computer at a retail store in the United States, the computer commonly comes with only a one-year manufacturer's limited warranty. At the check-out, just before one pays for the computer, the sales clerk offers the buyer an extended warranty. This insurance sales tactic is used to capitalize on individuals' loss aversion. If the insurance was offered bundled with the computer (e.g., if it sold for $1,000 without warranty, and for $1,200 with extended warranty), buyers will tend to view safety as an attribute of a computer they do not yet own, and would thus be unwilling to pay a high price for the embedded insurance. In contrast, once the buyer is ready to pay for the computer, thus considering it his property, loss aversion will drive him to pay more for insurance than he would have otherwise.

Some experimental evidence suggests that financial professionals are no less susceptible to those documented human idiosyncrasies in decision making under risk and uncertainty.[32] Most humans seem to exhibit loss aversion or asymmetric assessment of small gains versus small losses. This loss aversion produces willingness to pay too much for insurance, once the new "reference point" – with respect to which "prospects" are evaluated – makes one think of more events in terms of loss. In addition, since humans also tend to exhibit risk-loving behavior over losses and risk-averse behavior over gains, they treat the same prospect differently, depending on how it is presented to them. Those human idiosyncrasies in decision making under risk and uncertainty lead to dynamically inconsistent behavior. Precommitment, through prohibition of selling the unbundled insurance, helps to protect consumers against that dynamic inconsistency.

Insurance and Derivatives

If we accept the definition of forbidden *bayʿ al-gharar* as trading in risk, we can readily understand contemporary jurists' prohibition of conventional insurance and derivatives trading. Those topics will be discussed in much greater detail in Chapter 8. Thus, our coverage in this chapter only briefly links juristic analysis of the prohibition of *gharar* to our economic understanding of its legal substance. In this regard, we have noted in Chapter 2 that jurists argued that "safety" or "insurance" itself does not qualify as the object of sale. Hence, the object of sale in that contract would have to be defined as a contingent claim, akin to an option: The insured party has a legal right to receive compensation for damages in the event of loss stipulated in the insurance contract.

Based on this interpretation, jurists have forbidden commercial insurance dateing back to the late nineteenth century C.E., when the prominent Hanafi jurist Ibn ʿAbidin, whose work and opinions were central to the Ottoman *Majalla*, forbade maritime insurance on similar grounds. Likewise, jurists forbade naked options (calls and puts), which give their holders a legal right (respectively, to buy or sell the underlying assets). In this regard, the legal right to exercise the option was also viewed to be ineligible as object of sale. Thus, in both insurance and options, the price (insurance premium or option price) is certain, but its compensation (insurance payment or profit from exercising option) is uncertain, and hence the trade is forbidden based on *gharar*.

Notice that, in both instances, it is the sale of an unbundled contingency claim or legal right that jurists have forbidden. Jurists have not forbidden the inclusion of warranty in sale, whether the warranty is provided by the manufacturer or the retail seller. This bundled sale of insurance was allowed, just as the bundled sale of credit was (e.g., by allowing a manufacturer or dealer to sell cars with deferred payments, whereas financially equivalent loans are considered forbidden unbundled sales of credit). Likewise, jurists have not forbidden the sale of bundled options. Indeed, juristic analyses of sales contracts include lengthy discussions of permissible options in sales, an area in which the highly respected Hanbali jurists Ibn Taymiyya and his student Ibn Qayyim were particularly liberal.

3.3 Bundled vs. Unbundled Credit and Risk

We have thus argued that the two major prohibitions in Islamic jurisprudence of financial transactions, those against *riba* and *gharar*, are in fact prohibition of trading in unbundled credit and unbundled risk, respectively. We have further argued that the paternalistic nature of those prohibitions is understandable, in light of human idiosyncrasies that would lead to dynamically inconsistent behavior, much like wine drinking can lead to dynamically inconsistent behavior for most humans. Unlike the consumption of intoxicating beverages, which is not necessary for life, transfer of credit and risk is fundamental to the functioning of financial systems and economies. Hence, classical jurisprudence evolved methods of bundled trading in credit and risk while maintaining the prohibition of unbundled trading thereof.

That being said, one must recognize that classical contract forms – specific means of bundling credit and/or risk with other economic activities – can be used as apparently legitimate means toward illegitimate ends. This is obviously the case in *tawarruq*, for instance, where the stated purpose is to extend credit and provide liquidity to some customer. Economic activities camouflaging the underlying sale of credit (two spot sales and one credit sale of some commodity) do little to protect individuals from borrowing or lending excessively, for the wrong reasons, or at the wrong interest rate.

In the case of legitimate credit sales or lease-to-purchase financing secured by real estate, vehicles, equipment, and the like, marking-to-market rental value of the financed instrument can help individuals and lenders determine whether or not the implicit loan is justifiable. In contrast, the "rental" value on commodities used in *tawarruq* is precisely the rental value on money: that is, market interest rates that are not linked to the object of sale in any meaningful way. In other words, the "bundling of credit" in this transaction serves no economic purpose. It is a mere legal stratagem or ruse (*hila*) to legalize otherwise forbidden interest-based lending. That is why jurists of most schools have forbidden this transaction, which takes the form of multiple valid sales but does not serve the desired substance of Islamic law.

In later chapters we shall see that some classical nominate contract-based solutions to the prohibitions of *riba* and *gharar* seem to serve the form and substance of classical jurisprudence, while others clearly do not. In cases where current practice in Islamic finance serves legal form alone, and ignores substance, we have seen the credibility of the industry erode (e.g., in scholarly and public attacks on the contemporary practice of *murabaha* financing as merely inefficient lending).[33] This in turn led to the development of better alternatives (e.g., increased use of lease-based financing, including in *sukuk* issuances, in which marking-to-market rent is more straightforward). By attempting to analyze forms and economic substance of classical jurisprudence simultaneously, we hope to make it easier for industry participants to develop instruments that serve the latter. In the longer term, that emphasis on the economic substance of transactions may eventually rid Islamic finance of outdated and inefficient modes of operation. Thus, the Islamic brand name of the industry may be redefined in terms of consumer protection and social development, rather than contract mechanics.