

The Governance of Derivatives in Islamic Finance

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 [Keywords to Follow]

Introduction

During the current credit crisis, financial derivatives have come into sharp focus on account of their complexity and their role in incubating excessive leverage and propagating the economic fallout of the US subprime mortgage crisis, causing a global realignment of risk premia, a wide-spread retrenchment of credit exposures, and substantial intervention measures. The recent populist criticism, however, tends to ignore the vast economic gains from enhanced risk management opportunities associated with derivatives.² Derivatives have real value only if they are applied with judgment based on a good understanding of how they facilitate risk diversification and enhance financial intermediation, especially in instances of high transaction costs and poor liquidity due to the dispersion of (incomplete)

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2. A “derivative” or “derivative product” is a financial contract, whose value derives from one or more underlying reference assets, such as securities, commodities, market indices, interest rates, foreign exchange rates, or other agreed upon quantitative measures, and whose fulfilment or settlement is to occur at a future date not subject to extension.

markets, limited asset supply or the conglomeration of many risks into one whole asset. Therefore, the main economic benefits from derivative instruments stem efficient price discovery, which allows economic agents to reduce financing costs and hedge risks associated with certain transactions.

Since risk-shifting violates basic principles of sharia law, derivatives, however, remain controversial in Islamic finance. In particular, derivatives trading is still not readily accepted by sharia scholars due to its often speculative and unfunded nature. The inherent uncertainty of investor payoffs due to the state-contingent valuation of derivatives is often considered in violation of the overall objectives of Islamic law (*maqasid al-shari’ah*) to ensure justice and well-being for all. Thus, prevailing legal hindrances have not only arrested the development of risk management in Islamic banking and finance at large,³ but also affected the way derivatives can serve as hedging tools and redress perceived market imperfections and financing constraints.

As Islamic finance continues to develop rapidly amid greater uncertainty in international capital markets, however, the rising opportunity cost of limited sharia-compliant risk transfer mechanisms has raised questions about the scope of religious restrictions on the use of derivatives. While Islamic finance can synthesise close equivalents to equity and debt, there has been considerable difficulty developing sharia-compliant instruments that emulate the characteristics of conventional derivatives. So far, Islamic financial institutions and corporates have either resorted to existing conventional derivatives or developed specific sharia-compliant technologies (if permissible) to manage risks.

But from the standpoint of Islamic jurisprudence (*fiqh al-muamalat*), the unfettered use and trading of conventional derivatives is not permissible within present religious norms set by sharia codes. Legal scholars have pointed out that it may easily involve excessive uncertainty (*gharar*),⁴ speculative behavior (*maisir*), or the trading of debts (*bay al-dayn*)—three concepts that contravene fundamental principles of Islamic law.⁵ Despite these reservations, scholars and practitioners alike acknowledge the important

3. Juan Solé, “Introducing Islamic Banks into Conventional Banking Systems” IMF Working Paper 07/175 (Washington, International Monetary Fund, 2007).

4. *Gharar* is defined as “risk, uncertainty, and hazard [in transactions]. In a [sales contract (*bay*)], *gharar* often refers to uncertainty and ignorance of one or both of the parties over the substance, characteristics or attributes of the object of sale, or of doubts over its existence [or possession/ownership by the seller] at the time of contract. (Mohammad Hashim Kamali, “Uncertainty and Risk-taking (*Gharar*) in Islamic Law” (1998) 1(2) *Law Journal*, International Islamic University Malaysia). However, the term *gharar* defines a broad concept, whose interpretation varies by the type of contracts. In the most generic sense, it refers to contracts with a zero-sum proposition, i.e. the parties enter into a transaction they would rationally reject if they had perfect knowledge about their future payoffs.

5. It should be noted that, although there seems to be general agreement among scholars for rejecting conventional

benefits of viable hedging instruments in Islamic finance. Aside from greater co-ordination among various standard-setting bodies, several private sector initiatives are underway to advance the role of derivatives in Islamic finance.

Against this background, and based on the current use of accepted risk transfer mechanisms in Islamic finance, this article explores the validity of derivatives in accordance with fundamental legal principles of the sharia and summarises the key issues in the scholastic debate surrounding derivatives. The paper argues that there are indeed a number of instruments with derivative-like features which help agents reduce risks or that could form the basis for designing sharia-compatible derivatives. Based on a review of accepted contracts and current innovations, the article presents the existing menu of Islamic instruments as already rich enough to deliver some of the risk management solutions that conventional derivatives offer.

Why are conventional derivatives controversial in Islamic finance?

Since only interest-free forms of finance are considered permissible in Islamic finance, sharia-compliant contracts and transactions substitute the permanent transfer of funds at a specified interest rate (underpinning conventional finance) with the costly transfer of assets as the source of borrower indebtedness. Payment obligations arise from the use of existing or future (contractible) assets and not from the time value of money, making asset-backing (in the form of tangible investment) an essential element of any commercial transaction under sharia law.⁶

While interest payments in conventional finance represent the contractible cost for funds tied to the amount of principal over a pre-specified lending period, sharia-compliant finance prohibits *riba*, which applies to any capital gain derived from the quantitative inequality of the counter values of exchange or sales contracts.⁷ *Riba* is generally classified into unlawful advantage by way

derivatives as such, the reasons vary substantially among scholars.

6. To a certain degree, some Islamic finance contracts re-characterise conventional interest in a religiously acceptable manner. See Andreas A. Jobst, "The Economics of Islamic Finance and Securitization," (2007) 13(1) *Journal of Structured Finance* 1, also published as IMF Working Paper No 07/117; and Andreas A. Jobst, "Derivatives in Islamic Finance" in Ali Salman (ed), *Islamic Capital Markets—Products, Regulation and Development* (Jeddah: Islamic Development Bank, Islamic Research and Training Institute (IRTI), 2007).

7. The general consensus among Islamic scholars is that *riba* covers not only usury, but also the charging of interest and any positive, predetermined rate of return that is guaranteed regardless of the performance of the contractual object, such as an investment or granted benefit. See also Zamir Iqbal and Hiroshi Tsubota, "Emerging Islamic Capital Markets" (2006) *Islamic Finance Review* 5 (London: Euromoney Handbook,

of excess (*riba al-fadl*) or deferment (*riba al-nasia*).⁸ In accordance with the principle of *riba*, the sharia-compliant exchange of goods and services rules out (i) (back-to-back) trading of the *same* object at *different* prices (or quantities) between buyer and seller (*bay al-inah*), and (ii) trading of debt (or promises) (*bay dayn bi-dayn*) at a price which differs from its face value (regardless of whether the transaction occurs spot or in the future).⁹

Besides the prohibition of interest-based forms of income and unethical (or socially detrimental) activities (*haram*), Islamic law also prohibits betting and gambling (*maisir*) as sinful behaviour in contracts with a remote probability of positive payoffs to the investor ("game of chance"), as well as preventable contractual uncertainty and/or contingency risk of performance (*gharar*), including all financial derivative instruments and agreements aimed at speculative trade (rather than genuine hedging and/or equitable risk sharing) based on the exchange of money for debt *without* an underlying asset transfer.¹⁰

These overarching requirements for a sale to be considered valid (*sahih*) under Islamic contract law distil a number of more specific conditions, which pertain to sharia-compliant derivatives:

- *Price certainty and balance between borrowers (protection buyers) and lenders (protection sellers)*—while the fair value of an asset (and commensurate return from investment) are inherently uncertain, the sharia prohibition of *maisir* stipulates that the (maximum) price to be paid for an asset is definite (or adjusts to fair value) and must be known to both parties *ex ante*. Thus, the premise of uncertain returns from direct participation in asset performance but fixed payment obligations (and invariable negative payoffs) rules out unilateral (or zero-sum) gains from state- or time-contingent prices (which can amount to speculation and exploitation).
- *Identifiable object characteristics* ("quantity and quality") of a bona fide trade and/or certainty about delivery results—in order to avoid *gharar*, the object of exchange must exist before the transfer of title takes place, i.e. sales must be immediate and absolute, and its characteristics be clearly identifiable. The conclusion of

Euromoney Institutional Investor Plc) and Zamir Iqbal and Mirakhor Abbas, *An Introduction to Islamic Finance—Theory and Practice* (Hoboken/NJ: Wiley Finance Editions, John Wiley & Sons Inc, 2006), pp.203–50. While the elimination of interest is fundamental to Islamic finance, sharia-compliant investment behavior also aims to eliminate exploitation pursuant to Islamic law.

8. The prohibition of *riba* is upheld if deferred settlement is disallowed although the rate of exchange between two objects involves no gain to either party.

9. Although trading of debts is forbidden in many Islamic jurisdictions, it is allowed in others (e.g. Malaysia) under the concept of *bay al-dayn*.

10. See Mohamad, Saadiah and Ali Tabatabaei, "Islamic Hedging: Gambling or Risk Management?" (2008) *Islamic Law and Law of the Muslim World Paper No 08–47* (August 27, 2008).

sales attributed to future dates, sales contingent on future events, or promises of future sales are not considered enforceable contracts (with the exception of forward contracts on agricultural commodities (*salam*) or manufactured goods (*istisna'a*) with delayed delivery and payment respectively, whose premise of creating commercial value (“diversity of trade”) overrides the term contingencies until fulfillment of the contract).¹¹

• *Asset ownership and prohibition of both short-selling and leverage (underfunding)*—sharia principles align investments in real assets and associated financial claims, which marginalises the possibility of underfunding through leverage while fostering equity ownership (in lieu of financial leverage from debt creation without underlying asset values). Thus, any reference asset is required to be in the (constructive) ownership and possession of the creditor (or, in the context of risk management, protection seller) at the inception of a transaction in order to ensure the asset-backing of financial obligations.

With these considerations in mind, it is possible to examine the reasons that several scholars have assessed the suitability of derivative instruments in Islamic finance.

Since the object of a transaction may not exist at the time a contract is signed, Islamic scholars argue that derivatives could lead to excessive uncertainty, unnecessary risks (*gharar*) or speculation that verges on gambling (*maisir*) due to the absence of predetermined object characteristics and state-contingent pricing. In particular, there is concern about the fact that absence of an absolute reference value could result in zero-sum payoffs of both sides of the bargain and possible exploitation of the ignorant.¹² That being said, standardised contract specifications, advanced market conduct, and supervisory controls may render the latter argument invalid, which leaves only the question of how the *ex ante* protection against downside risk via premium payments can be reconciled with the virtually unlimited upside potential in contracts with unilateral deferment, such as options.

11. Fulfilling unilateral promises (*wa'd*) is considered honourable by all Islamic schools of thought, but not necessarily a legal requirement. Note that the general permissibility of forward contracts under sharia could be deduced from the concept of *salaf* (forward trade), which requires the identification of a specific quantity, specific weight and for a specific period of time—conditions that a generally met in contemporary futures market trading.

12. See Jan Smolarski, Michael Schapek, and Mohammad Iqbal Tahir, “Permissibility and the Use of Options for Hedging Purposes in Islamic Finance” (2006) 48(3) *Thunderbird International Business Review* 425, and Mohammad Hashim Kamali, “Commodity Futures: An Islamic Legal Analysis” (2007) 49(3) *Thunderbird International Business Review* 309.

Another key argument presented against the endorsement of derivatives in Islamic finance pertains to the counterparty risk (and associated potential of avertable uncertainty) from the sale of a non-existent asset or an asset not in the possession of the seller (*qabd*) (i.e. taking possession of the item prior to resale, which negates the *hadith* “sell not what is not with you”). Derivatives supplement cash markets as alternatives to trading underlying assets by providing hedging and low-cost arbitrage opportunities. However, many conventional derivative contracts involve *de facto* speculation in absence of actual ownership of the reference asset(s) (and deficient hedging need), which belies equal risk sharing subject to religious restrictions lending and profit-taking without real economic activity and asset transfer. The majority of scholars continue to reject futures and options as non-concluded contracts because unfunded or partially funded transactions do not imply legal ownership (and possession) of the reference asset, which would guarantee the delivery of the contractual asset with certainty at a future date.¹³ Although

“some of the underlying basic concepts as well as some of the conditions for [futures trading] are exactly the same as [the ones] laid down by the Prophet [Mohammed (*sallallahu 'alayhi wasallam*)] for forward trading,”

there is the potential of unnecessary risks arising from speculation, exploitation as payment obligations are contingent on intemporal valuation, and the perceived lack of a physical asset ownership.¹⁴

Other criticism that has been raised by a number of Islamic scholars relates to mutual deferment (without actual asset delivery), which helps mitigate contingency risk of asset delivery in conventional derivative contracts, such as futures. Scholars take issue with the fact that interim cash payments and the prevalence of cash settlement (rather than physical delivery of underlying assets) imply uncertainty about final payment obligations and

13. Maulana Taqi Usmani, “What Sharia Experts Say: Futures, Options and Swaps” (1999) 1(1) *International Journal of Islamic Financial Services*.

14. Some scholars infer the permissibility of futures contracts based on “clear sayings” of the Prophet Mohammed, which stipulate that a forward trade (*salaf*) should be completed for a specific quantity, specific weight and for a specific period of time—much like modern day futures contracts. However, this line of argument ignores the fact that unless the price to be paid at a future date is pre-specified, the payment event is not considered to occur with certainty. However, the *Sharia Advisory Council of the Securities Commission of Malaysia* has certified the permissibility of futures trading of commodities as long as the underlying asset meets sharia requirements. See M. Fahim Khan, “Islamic Futures and their Markets” (1995) Research Paper No 32 (Jeddah: Islamic Research and Training Institute, Islamic Development Bank), 12, and Obiyathullah Ismath Bacha, “Derivative Instruments and Islamic Finance: Some Thoughts for a Reconsideration” (1999) 1(1) *International Journal of Islamic Services*, for a more detailed summary of some inconsistencies in arguments among scholars in this regard.

divorce derivative trades from the necessity of underlying asset transfer under sharia.¹⁵ Futures are generally priced *marked-to-market* (MTM),¹⁶ which requires interim payments (“margin calls”) by the party whose contingent claim has lost value (“out-of-the-money”). Thus, these derivatives almost never involve delivery by *both* parties to the contract and “. . . in most [. . .] transactions [,] delivery of the commodities or their possession is not intended.”¹⁷ Often, parties to the transaction cash-settle the price difference upon close-out or maturity. However, reversing a trade and offsetting a contractual obligation (contingent on a particular economic outcome) would equate to a cash transaction without value-creation in violation of sharia principles.

The absence of a legalistic cause (*illah*) associated with a payment obligation in cash settlements has led commentators to dispute their general permissibility of futures,¹⁸ given that same object of exchange cannot be bought and sold between two parties at different prices and with time delay (due to the use of the object over the contract period) (*bay al' inah*). While interim margin calls limit counterparty risk and ensure definite performance by means of cash settlement (if physical delivery fails or one party defaults), not only do they imply intertemporal (re-)pricing¹⁹ (which contravenes contractual certainty about the sales prices of an asset), but also turn a derivative contract into a debt sale without the element of a genuine transfer of asset ownership. For instance, the laws governing *sarf*—which govern the exchange of currencies or means of payment in Islam—require that the exchange of currencies (in addition to the payment) take place at spot before the contracting

parties disperse (see Table 1). In contrast, future delivery of commodities is permissible (as in *salam* and *istisna'a*), but also in this case, payment must be immediate.²⁰

For similar reasons, several scholars also consider options in violation of Islamic law. Options redress the contingency risk of definite asset delivery (and the associated exposure to discretionary non-performance) in forward and futures in return for the payment of an upfront, non-refundable premium. Holders of a call (put) option (“promisees”) acquire from the seller (“promissor”) the right (but not the obligation) to acquire (sell) the underlying asset at a pre-determined price during a specific period of time. Therefore, not only do options serve to hedge adverse price movements and take advantage of favourable price movements at a low transaction cost, but they also cater for contingencies regarding the delivery or receipt of the asset due to an *ex ante* premium payment commensurate to the intrinsic value of the contractual right from exercising the option. Usmani²¹ observes that:

“according to the principle of the sharia, an option is a promise to sell or purchase a thing on a specific price within a specified period. Such a promise in itself is permissible and is normally binding on the promisor [like a *wa'd* contract]. However [,] this promise cannot be the subject matter of a sale or purchase. Therefore, the promisor cannot charge the promisee a fee for making such a promise.”²²

Although the avoidance of *counterparty risk of periodic payments* and *contingency risk of definite performance* is essential to establishing possible sharia compliance of derivatives, conventional remedies to these contractual uncertainties controvert Islamic principles after all. For instance, the assurance of both payment and delivery through state-contingent (periodic) cash settlement (in the case of futures) and provisions for unilateral deferment (in the case of options) imply a zero-sum proposition *ex ante* and debt creation without underlying asset transfer. However, insufficient asset-linkage and the potential of unilateral gains supplant the concept of equitable risk sharing and contractual certainty, which define the perimeter of religiously acceptable risk management behaviour under Islamic law.

15. In a similar manner, the issue of close-out netting in derivative contracts long delayed the draft guidelines of the ISDA-IIFM master agreement. It appears, however, the valuation of certain positions rather than settlement concerns seem to be the root cause of the continued debate on the current proposal. See R.Khasawneh, “No Agreement on ISDA Master for Sharia-compliant Documentation” (2008) September *Risk Islamic Finance*, available at <http://www.risk.net/public/showPage.html?page=813159> [Accessed August 14, 2009].

16. MTM defines the process of constantly matching the valuation of an asset to the current (fair) market price, which involves monitoring the effect of variations to contingencies (e.g. market conditions, micro- and macro-economic indicators, price volatility, quality considerations, political risk, etc.) on the forecasted spot price (i.e. expected future price) for a specified delivery date. For instance, if the asset price falls below (increases above) the contracted strike price, a call option would be “out-of-the-money” (“in-the-money”).

17. Maulana Taqi Usmani, “Futures, Options, Swaps and Equity Investments” (1996) 59 *New Horizon*, *Institute of Islamic Banking and Insurance* 10.

18. M.A. Khan, “Commodity Exchange and Stock Exchange in an Islamic Economy” in M. Sadeq (ed), *Development and Finance in Islam* (Malaysia, International Islamic University Press, 1991). See also Mohammad Hashim Kamali, *Islamic Commercial Law—An Analysis of Futures and Options* (Cambridge: Islamic Texts Society, 2001), Ch.10.

19. A sharia-compliant solution to this problem could be the periodic adjustment of (re-)payment amounts commensurate with any deviation of the underlying asset value from a pre-agreed sales price at different points in time.[0]

20. However, it is worth noting that under the rules of *sarf*, the concept of *al-muqasah* allows the settlement of debts in different currencies between two parties.

21. Maulana Taqi Usmani, “What Sharia Experts Say: Futures, Options and Swaps” (1999) 1(1) *International Journal of Islamic Financial Services*.

22. Even if options were considered permissible under Islamic law, there are further aspects to be considered. An interim value change of the reference asset during the maturity term of an option contract implies unilateral gains from shared business risk, which would only be sharia-compliant if the option had no intrinsic value at inception for a pre-specified strike price in the future. The realisation of these gains, however, is conditional on eventual asset ownership (after execution of the option) rather than the sale of the option.

Scholastic reservations towards some derivatives represent a significant form of religious censure (*taqlid*) as the principle of permissibility (*ibahah*) renders all commercial transactions sharia-compliant in the absence of a clear prohibition. Nonetheless, controversial features of derivatives that guard against failure to pay or deliver pursuant to contingent financial obligations, such as cash settlement, might have been more relevant in the past, when simple, unsupervised, and unorganised capital markets implied considerable counterparty and contingency risk. This could make the conditions of mutual gain, value creation and asset ownership less binding on sharia-compliant risk management strategies if the underlying intent of Islamic principles is revisited under current market conditions. In today's more developed financial markets, where transactions are easier to document and enforce, a more flexible interpretation of some of these principles—without disregard for the main moral tenets of Islam—might be warranted.

Legacy and explicit derivatives in Islamic finance

Although some established forms of sharia-compliant lending may involve either future delivery of the contractual good or the delayed payment of an agreed sales price,²³ the general use of derivatives (“explicit derivatives”) remains highly controversial. The use of contracts with contingencies is germane to particular assets subject to stringent religious interpretation, which restricts the extent to which these derivative-like structures can serve as general hedging tools.

Some variations to the standard debt-based contract (*murabaha*) contain contingent provisions that do not fully meet all conditions stipulating sharia-compliance. The most prominent examples of such “legacy derivatives” (see Table 1) are contracts with different instalment rates as well as delayed repayment and asset delivery schedules, such as *salam*²⁴ (deferred delivery sale), *bay bithaman ajil*

23. The so-called commodity *murabaha* is a frequently used form of wholesale debt-based Islamic finance between a bank and its client to replicate short-term money market deposits and medium-term syndicated loans. Such a contract involves the sale on a deferred payment basis of a commodity, usually metals, at the market price plus an agreed profit margin to the borrower, who raises the required funds by immediately selling the asset to a broker or a financial institution.

24. *Salam* contracts are mostly used in agricultural finance. They closely resemble conventional futures contracts and are sometimes considered an independent asset class outside the asset spectrum of *murabaha*. *Salam* are exempt from the requirement that the seller of the good must be in possession of the good at the time of signing the contract. On the other hand, *salam* contracts are only applicable to commodity-like goods. See Alexander Batchvarov and Nicolas Gakwaya, *Principles and Structures of Islamic Finance* (London: Merrill Lynch, European Structured Finance—ABS, 2006), for a more detailed discussion of *salam* from a market perspective.

Table 1: Classification Scheme of Derivatives in Islamic Finance

Type of Derivative ¹	Legacy Derivatives	Explicit Derivatives
Forward²	x (<i>salam</i> , <i>bay mu'ajal</i> , <i>bay bithaman ajil</i> (BBA), <i>istisna</i>)	x (various commodity hedges and “wrappers”)
Option	x (<i>wa'd</i> , <i>arbutun</i> , <i>al-shart</i>)	x (foreign exchange option contracts)
Swap	x (<i>tawarruq</i> , <i>al-muqasah</i>)	x (<i>wa'd</i> -based swap, profit rate swap, cross-currency swap)

1) Examples of Islamic contracts in each cross-classification are listed according to their main economic objective. Some contracts may have additional features that are missing in their conventional finance analog, e.g. *arbutun v* options, where the former involves an upfront down-payment but is devoid of any state-contingent premium.

2) All existing sharia-compliant derivatives are bilaterally negotiated and are traded over-the-counter (OTC) without a formalized, exchange-based clearing and settlement. There are no Islamic futures contracts.

3) As sale-leaseback transaction. •

(BBA)²⁵ (deferred payment sale), and *istisna* (purchase order) (see above). Forward asset purchases under *salam* (BBA) allow deferred delivery (payment) of agricultural commodities. Similarly, an *istisna* contract provides pre-delivery (project) finance for some yet *non-existent* manufacturing goods (purchase order) the borrower promises to deliver over the term of the lending agreement according to contractual specifications. Instalment payments are also a possibility in this context. Other lesser known sharia-compliant alternatives to conventional derivatives are *arbutun* and *al-shart* contracts.²⁶ In *arbutun*, the buyer offers a forfeitable down-payment as an option

25. A *bay bithaman ajil* (BBA) contract is primarily used for long-term financing and does not require the lender to disclose the profit margin.

26. The concept of *arbutun* (down-payment) could be invoked to justify the design of option-like securities. While Ayub (2002) cites a resolution by the *Fiqh Academy* (May 9–14, 1992) stating that “option contracts as currently applied in the world financial markets . . . are not permissible in Sharia,” in 1993, the *Fiqh Academy* ruled in favor of down-payment sales (Mahmoud A. El-Gamal, *Islamic Finance: Law, Economics,*

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on the conclusion of a sales contract, while *al-shart* represents a contractual provision that allows both parties, or one of them, to confirm or cancel the contract within a pre-specified time frame.

Amid weak reliance on capital market financing in many Islamic countries and the unresolved debate on risk management among sharia scholars, other types of derivatives (“explicit derivatives”; see Table 1) remain few and far between. Most approved derivatives are either adaptations of standard Islamic contracts or involve new hedging technologies (“wrappers”) offered by banks to issuers rather than investors of Islamic securities. Only a few products have been developed by various banks for managing currency and interest rate risk. While recent innovation in this area has focused mostly on highly customised option contracts as well as commodity hedges, cross-currency swaps and so-called “profit rate swaps” constitute the most widely accepted forms of newly established sharia-compliant derivatives (see Table 2).²⁷

Given the prohibition of interest income and the exchange of the same assets for profit (which includes the cost-plus sale of debt), for Islamic investors to execute a swap, both parties instead agree to sell different assets—usually commodities—to each other for deferred payment. In the case of cross-currency swaps, the contractual parties exchange commodities in the form of a cost-plus sale and settle their mutual payment obligations in different currencies according to a pre-defined instalment schedule (see Box 1, Figure 1). If the parties wanted to hedge term risk (i.e. the risk of the fair market values of the exchanged assets to diverge over the life of the transaction)—either in addition to the cross-currency swap or as a separate transaction—they would enter into a profit rate swap. In this Islamic version of an interest rate swap, the two sides exchange periodic fixed-rate for floating-rate payments (see Box 1, Figure 2). After selling a designated commodity to the protection seller, the protection buyer receives periodic fixed-rate payments in return for floating rate instalments. Both types of swaps are crucial hedging mechanisms for Islamic issuers with business interests in several countries. For instance, if a corporation in the GCC would want to raise funds in Malaysia without incurring the local currency (and interest rate)

risk, it would naturally choose to complete a sharia-compliant currency (and profit rate) swap transaction with a Malaysian counterpart.

Box 1: Islamic swap transactions—cross-currency and profit rate swaps

Sharia-compliant swap transactions are traded bilaterally and combine opposite, maturity-matched *murabaha* contracts with instantaneous (or periodic) transfer of similar assets and delayed payment of the sales price (inclusive of a premium payment for the use of the asset until the maturity date).²⁸

Islamic cross-currency swap (CCS)

Islamic cross-currency swaps (CCS) debuted only recently when Standard Chartered executed the first ever swap transaction of this kind for Bank Muamalat Malaysia in July 2006. The basic structure of a CCS matches two commodity *murabaha* sale contracts that generate offsetting cash flows in opposite currencies with maturities desired by the contracting parties.

The following example illustrates the functioning of a CCS (see Figure 1). Consider the case of a Malaysia-based Islamic bank that raises revenue in Malaysian Ringgit but faces payments in US dollars over a certain period of time. To eliminate this foreseeable currency mismatch, the bank could substitute its future outflows in US dollars for outflows in Malaysian Ringgit by entering into a CCS with a US dollar-paying counterparty. Under this contract, the Malaysia-based Islamic bank purchases an amount of commodity A on a *murabaha* basis (i.e. against future instalments) denominated in Malaysian Ringgit and sells it forward against payment in US dollars.

Simultaneously, a GCC-based Islamic bank buys an amount of commodity B, also under a *murabaha* agreement, but denominated in US dollars and sells it forward against payment in Malaysian Ringgit. By combining the two *murabaha* contracts, each denominated in a different currency, each party will be able to receive cash flows in the desired currency. Finally, both banks sell their respective

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and Practice, (Cambridge: Cambridge University Press, 2006). As in conventional options, *arbutun* provides an element of contingent insurance in that the buyer of a commodity can lock in a specific price by signing a call option. However, the difference between a call option and *arbutun* is that for the latter the payment is part of the price of the traded asset, whereas in the former the strike price does not include the option price. See Muhammad Ayub, *Islamic Banking and Finance: Theory and Practice* (Karachi: State Bank of Pakistan Press, 2002).

27. In conventional finance, we generally distinguish between two main types of swap contracts: (i) “interest rate swaps”, wherein interest payments are made in the same country, and (ii) “currency swaps”, which involve different currencies. The swapped interest rate payments can either be floating, fixed, or a mixture of floating and fixed.

28. The degree of collateralisation of each leg of the swap depends on the original ownership of the transferred asset (or, in this case, the exchanged commodities), defining the level of creditor indebtedness. In the standard *murabaha* sales contract, the creditor has either (i) full recourse to the underlying asset and periodic payments (in a sale-repurchase agreement at a initially discounted sales price (cost-plus sale)) or (ii) limited recourse to periodic payments only (in a back-to-back cost-plus sale of an asset the seller previously acquired from a third party). In a *murabaha*-based swap transaction the restrictions on recourse apply, even though both contract parties hold mutually offsetting payment obligations against each other, preventing speculative interest and mitigating contingency risk of periodic payments.

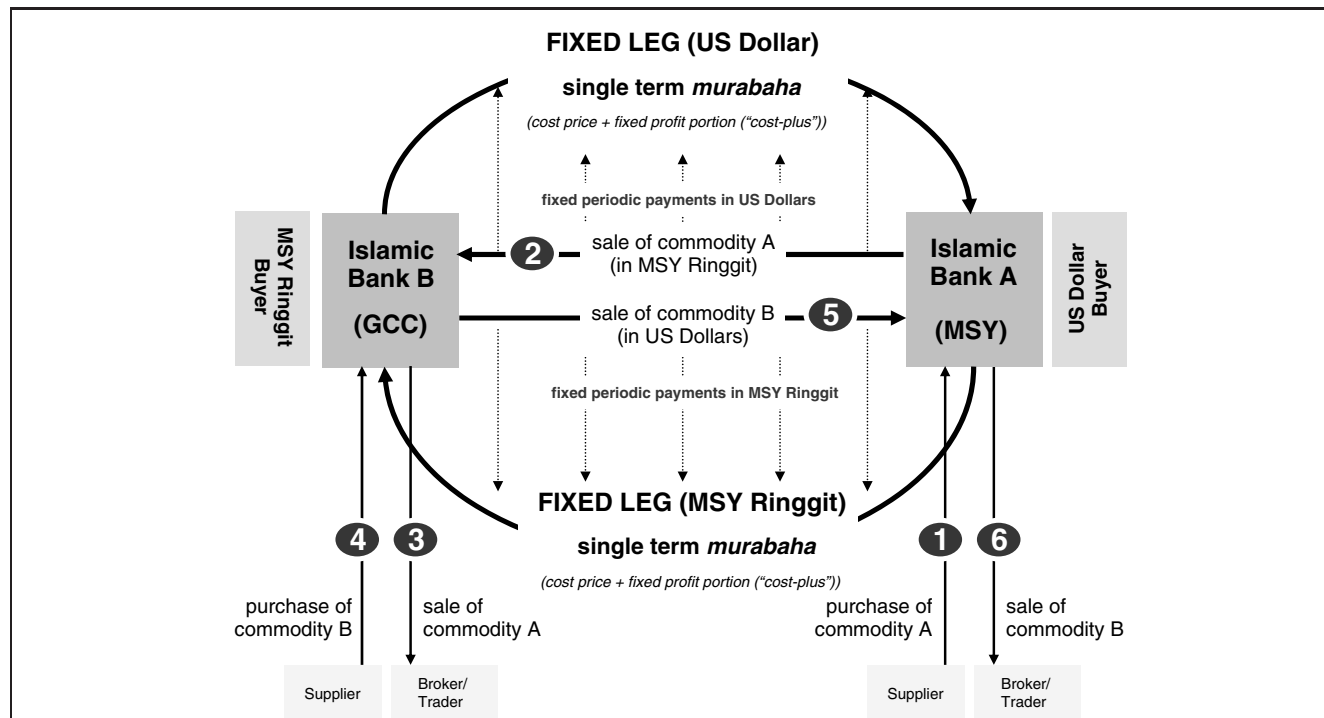


Figure 1: *Murabaha-based cross-currency swap (CCS)*

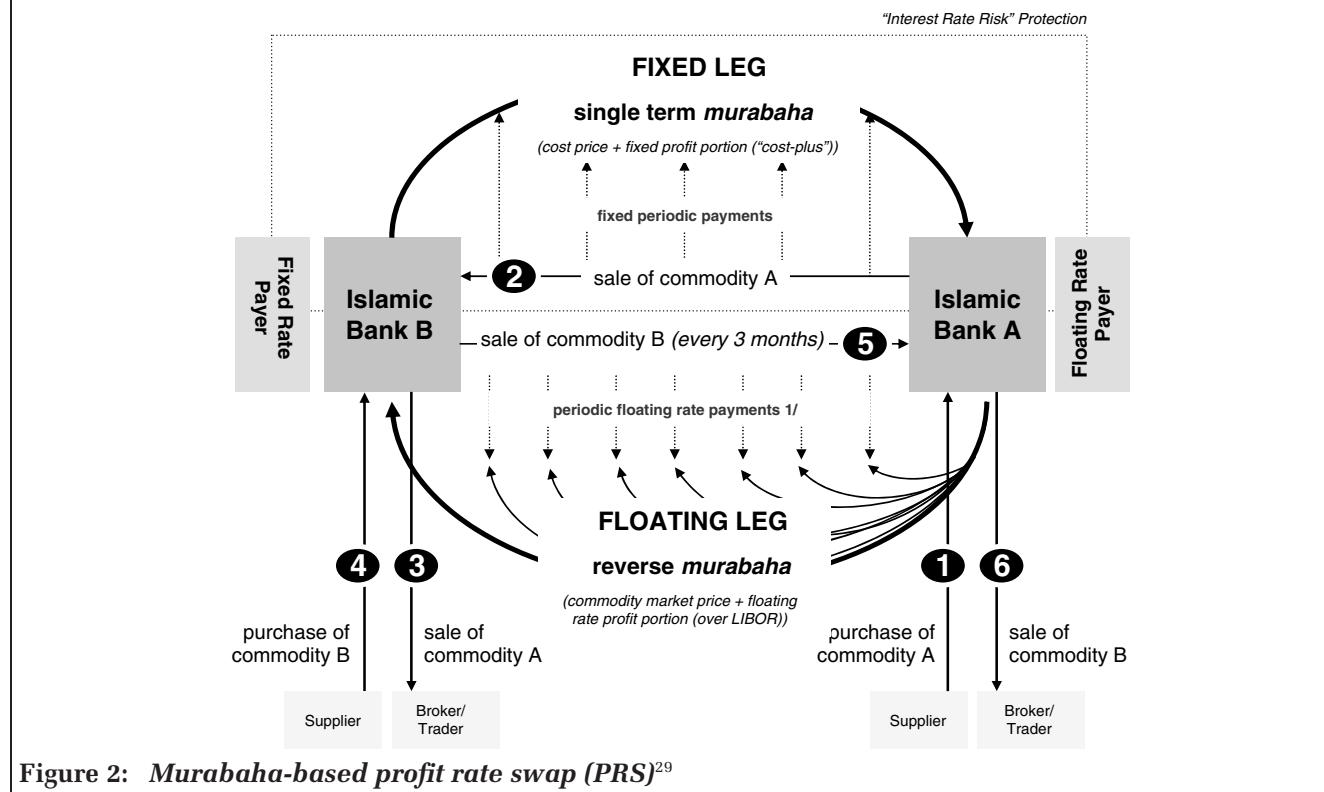


Figure 2: *Murabaha-based profit rate swap (PRS)*²⁹

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29. This includes full payment and physical settlement each period. This structure was pioneered by Commerce International Merchant Bank (CIMB) of Malaysia in 2005.

commodities in order to recoup their initial expense, where the fair value of each commodity (A and B) should wash out at the prevailing exchange rate.

Islamic profit-rate swap (PRS)

This instrument, pioneered by Commerce International Merchant Bank (CIMB) of Malaysia in 2005, allows financial institutions to manage their exposures to fixed and floating rates of return. That is, through the PRS, institutions can restructure the nature (fixed v floating) of their existing rates of return. As in the CCS, profit rate swaps are based on the combination of two commodity *murabaha* contracts (see Figure 2). The floating rate leg involves the periodic *murabaha* sale of a commodity by the protection seller in exchange for future installments at the fair value (market) price plus a *floating rate profit portion* (“cost-plus”) that varies according to changes in some pre-agreed benchmark (e.g. some inter-bank funding rate like the London or Kuala Lumpur Interbank Offering Rate). The fixed rate leg stipulates the one-off sale of a commodity by the protection buyer in exchange for a stream of future pre-determined payments. As in the cross-currency swap, both parties may sell their commodities in order to recoup their initial disbursement. Note that the floating rate payer (or interest rate protection buyer) purchases commodity B in periodic increments—unlike the fixed rate payer (or interest rate protection seller), who receives commodity A in full at inception.

Attempts to design other sharia-compliant derivatives, such as total return swaps, have been mired in controversy. One particularly contested structure is based on a dual *wa'd* (or promise) contract, which swaps returns of a sharia-compliant asset portfolio with those of a designated index or reference investment portfolio, which can contain conventional assets. This Islamic total return swap would allow investors to access returns from assets that are prohibited under sharia principles. DeLorenzo³⁰ has argued that, in practice, this swap structure does not conform to sharia norms, because the returns from the alternative portfolio are not derived from religiously acceptable activities.

Legal challenges of derivatives under Islamic law

Governance issues constitute a major challenge for the Islamic finance industry. Although sharia rulings (*fatwas*) (and their underlying reasoning) are disclosed, there are currently no unified principles (and no precedent) on which sharia scholars decide on the religious compliance of new products. *Fatwas* are not consolidated, which inhibits the dissemination,

adoption, and cross-fertilisation of jurisprudence across different countries and schools of thought. Therefore, the fragmented opinions of sharia boards, which act as quasi-regulatory bodies, remain a source of continued divergence of legal opinion. In particular, there is considerable heterogeneity of scholastic opinion about sharia compliance of derivatives, which testifies to the general controversy about risk management in Islamic finance. In particular, it underscores the difficulties of reconciling financial innovation and greater flexibility in the principled interpretation of different modes of secondary sources supporting religious doctrine (i.e., analogous deduction (*qiyas*), independent analytical reasoning (*ijtihad*) and scholarly consensus (*ijma*)).³¹

The absence of uniform and definitive guidance on sharia compliance also affects the legal integrity of the restitution interest. While the conclusion of financial transactions under different legal regimes can lead to the same outcome (i.e. substance), the legal process (i.e. form), and possibly the associated rights and obligations of the contractual parties, might vary considerably depending on whether Islamic law governs the derivative transaction by substance or form. If the transaction were governed solely by sharia law as a matter of form, the opinion of sharia courts could override commercial legal concepts and re-qualify the legal nature of the transaction. These legal contingencies imposed by Islamic jurisprudence are particularly relevant in context of dispute resolution through courts or arbitration (see also Box 2), where the supremacy of a bankable governing law as a matter of form remains essential to maintain investor confidence amid concerns about contract enforceability caused by heterogeneous prudential norms and diverse interpretations of sharia compliance.

Regulatory consolidation and supervisory harmonisation through standard setting is still at an early stage. Leading regulatory organisations in Islamic finance, such as the Accounting and Auditing Organization of Islamic Finance Institutions (AAOIFI), the General Council for Islamic Banking and Finance Institutions (GCIBFI), the Islamic International Rating Agency (IIRA), and, most of all, the Fiqh Academy in Jeddah, have been working on aligning sharia principles on a consistent basis.

Efforts to introduce legal standards and uniform market practices for sharia-compliant derivatives have started only recently. Despite the successful introduction of currency and profit rate swaps in several Islamic countries, general legal benchmarks for Islamic derivatives are yet to emerge, largely due to divergent market practices, the lack of a consolidated and unified sharia approval process, and the non-binding character of precedent in Islamic jurisprudence. In October 2006, the International

30. Yusuf Talal DeLorenzo, “The Total Returns Swap and the ‘Shariah Conversion Technology’ Stratagem” (2008) available at <http://www.dinarstandard.com/finance/DeLorenzo.pdf> [Accessed August 14, 2009].

31. See also Andreas A. Jobst, Peter Kunzel, Paul Mills and Amadou Sy, “Islamic Bond Issuance—What Sovereign Debt Managers Need to Know” (2008) 1 (4) *International Journal of Islamic & Middle East Finance and Management*.

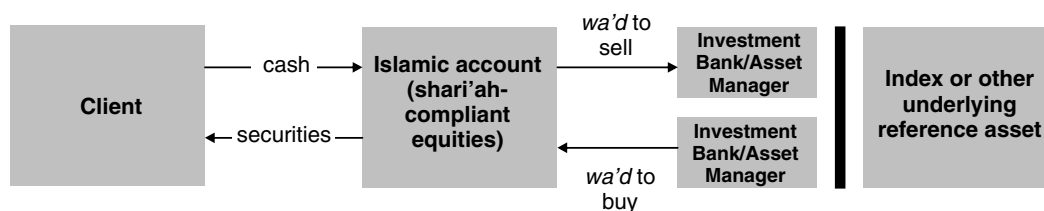


Figure 3: *Islamic total return swap*

Swap and Derivatives Association (ISDA) and the International Islamic Financial Market (IIFM), in cooperation with the International Capital Markets Association (ICMA), signed a Memorandum of Understanding (MoU) to develop a master agreement protocol for Islamic derivatives. The joint IIFM/ISDA working group represents the first-ever attempt to develop standard documentation for sharia-compliant global cross-border transactions.³² Some industry initiatives in related areas of Islamic capital markets have already showed promising results, such as the recently issued Master Agreement for Treasury Placement (MATP), which will contribute to the standardisation of documentation rules for the sharia-compliant commodities market with a view to enhancing cost, time, and operational efficiencies of deposit arrangements for liquidity management.

Box 2: Key elements of the proposed ISDA/IIFM hedging master agreement for Islamic swap transactions

The forthcoming ISDA/IIFM Hedging Master Agreement differs in five key areas from the “conventional” ISDA Master Agreement issued in 2002: (i) the structure of the agreement, (ii) the close-out mechanism, (iii) the net present value of future receipts/payments, (iv) the events of default, and (v) the forum.

The current draft agreement is currently limited to *murabaha*-based swap agreements,³³ but there is a clear intention to expand its scope to include other transaction and contract types under sharia law. For valuation purposes, the agreement distinguishes between two distinct structural elements of Islamic derivative—the “concluded transaction” (from inception to the end of the first payment period,

e.g. the first year of the contract) and the “concluded transaction(s)” or “designated future transaction(s)” (covering the remaining maturity term), which converts into a “concluded transaction” year by year.³⁴

In a credit event,³⁵ the specific legal structure of Islamic derivatives requires a close-out process that distinguishes between concluded and designated future transactions.³⁶ The master agreement defines a parallel (rather than consecutive) valuation of the concluded transaction and the designated future transaction(s). It modifies existing market practices for the former while introducing new concepts pertinent to establishing sharia compliance for the close-out of the latter. The close-out of the concluded transaction follows the conventional ISDA language, which determines the early termination amount according to the 2002 master agreement. For designated future transaction(s), in contrast, the draft guidelines prescribe the use of *musawama*³⁷ contracts, whereby each agent triggers offsetting payment by selling a good or asset to the counterparty at a pre-agreed price (which is calculable using a specified formula to establish a price payable at which sharia-compliant assets would be bought and sold). The net cost of the *musawama*-based close-out is equivalent to the market value of the difference in asset values plus the mark-to-market value of the designated future transaction(s), expressed as an index level.³⁸

34. The difference between a “concluded transaction” and a “non-concluded transaction” is analogous to the difference between an “agreement” and an “agreement to agree” under English law.

35. In this context, the definition of events of default or termination, such as failure to pay or deliver, breach of agreement, credit support default, and breach of contract (e.g. misconduct), also includes misrepresentation of sharia compliance.

36. According to an early assessment of Islamic scholars, it is not permissible under sharia to consolidate the early termination amount and the net cost of the *musawama* contracts into a unified transaction.

37. In a typical *musawama* contract, a bank usually purchases assets and holds them until they are sold at a mark-up to the client subject to repayment in instalments. As opposed to a *murabaha* contract, the bank does not disclose to client added profit and the actual cost it has incurred in acquiring the assets.

38. The index level is calculated using a similar basis to that used in the conventional 2002 ISDA Master Agreement.

32. Already in November 2006, Malaysia’s only fully-fledged Islamic banks, Bank Islam Berhad and Bank Muamalat Malaysia Berhad, broke new ground by agreeing to execute a derivative master agreement for the documentation of Islamic derivative transactions (Andreas A. Jobst, “Double-Edged Sword: Derivatives and Shariah Compliance” (2008) July–August *Islamica* 22). This standardisation initiative was sponsored by the Malaysian Financial Market Association (Persatuan Kewangan Malaysia) with the participation from both Islamic and conventional Malaysian banks in a bid to buttress Malaysia’s aspirations of becoming a centre of Islamic finance.

33. Thus, the current master agreement is designated as “Version 1”. We thank Peter Werner, Policy Director at ISDA, for these comments.

The close-out process also defines specific provisions for both concluded and future designated transactions. On the close-out of the concluded transaction, the full amount (and not the net present value) is payable and receivables are to be accelerated and paid out (without discounting). For designated future transaction(s), the non-defaulting party is free to choose the assets that are subject of the *musawama* contract on a close-out.³⁹ If one party is insolvent at the time of close-out and may not be capable of entering into the required *musawama* contract, the non-defaulting party has a loss claim on the mark-to-market value of the transaction. Cross-default provisions and the stipulation of secular governing law are important elements of the new master agreement. Islamic scholars have accepted the concept of cross-default provisions, which states that any default on another swap will be considered a default on the issue.⁴⁰ Moreover, the choice of secular law as the forum of dispute resolution⁴¹ (through courts or arbitration) acknowledges concerns about investor protection as regards the re-classification risk of transactions and the displacement of commercial interest by sharia courts.⁴² The agreement follows New York or English law as *matter of form*, which maintains conventional principles of bankruptcy and property law without affecting sharia compliance as a *matter of substance*. Thus, sharia compliance upholds in

spirit what was created in form, such as perfected security interest defined by commercial law, the violation of the sharia would not preclude legal enforceability of investor claims.

Prospects of Islamic derivatives

Since conventional derivatives are virtually absent in Islamic countries, considerable demand for sharia-compliant investments provides an untapped market for risk management techniques. The absence of a wide range of suitable risk transfer mechanisms under Islamic law deprives financial institutions and corporations of many advantages associated with derivatives as they expand their activities well beyond their original jurisdictions and penetrate and increasing number of countries in the Maghreb, the Middle East and the GCC, south-east Asia, and elsewhere. This international diversification of Islamic finance will certainly require new (and more flexible) instruments with which to manage currency and other risks.⁴³ As Islamic finance comes into its own, and more companies turn to capital market-based sources of finance, sharia-compliant derivatives will become essential to the competitiveness of corporations.

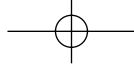
39. However, the type of assets to be used in the derivatives transactions can be specifically agreed upon by both counterparties. Since the valuation and pricing of designated future transactions(s) are agreed at the outset, *musawama* arrangements cannot create an objectionable “transaction at an undervalue”.

40. The purpose is to protect a creditor or counterparty from actions favoring another creditor.

41. The master agreement includes a governing law clause that refers exclusively to the relevant secular law, which does not cross-refer to, or seek to incorporate, sharia principles. This provision assumes that the satisfaction with sharia principles was a material pre-condition for entering into the relevant transaction, and, thus, does not impact on the construction of the contractual terms.

42. Andreas A. Jobst, “Islamic Derivatives” in G.N. Gregoriou, and P. Ali (eds), *The Credit Derivatives Handbook—Global Perspectives, Innovations, and Market Drivers* (New York: McGraw-Hill, 2008).

43. See Heiko Hesse, Andreas A. Jobst and Juan Solé, “Trends and Challenges in Islamic Finance” (2008) 9(2) *World Economics* 175.



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