Islamic Financing for Large Infrastructure Projects

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Summary

This paper examines the growing Islamic finance market and how it is becoming an important source of capital to fund infrastructure projects in the Muslim world. The paper starts by introducing basic tenants of Islamic finance and the problems as it relates to large capital projects. Innovations in Islamic project financing are then introduced along with the complexity that those have to innovations address. The paper concludes with a description of selected recent infrastructure development projects that use Islamic financing.

Islamic Project Development Needs

Increasing population throughout the Muslim world and the appetite for demand in investment for infrastructure in Muslim populated countries has led an increase need for capital that conforms to Islamic standards (see exhibit 1 for list of Organization of Islamic Countries).[1] In many of these countries especially in the Middle East, Central Asia and South East Asia, oil and natural gas deposits push the need for companies to build extraction, transport and refining capacity. In developing countries such as the ones in Africa, Pakistan, and Afghanistan, there is an increasing need for electricity and water desalination stations. These projects are capital especially capital intensive in nature.

Islamic Financing Basics

Islamic financing is the method of financing that complies with the *Shari'ah* (Islamic jurisprudence). The sources of the *Shari'ah* include the *Qur'an* (text in which Muslims' believe

captures the actual words of God), the *Hadith* (Prophet Muhammad's sayings and deeds and its interpretations also known as the *Sunna*), *Ijma* (Islamic community bases for legal decision making), *Qiyas* (judicial precedent based on the *Qur'an* and the *Haddith*), and *Ijtihad* (opinion based on an Islamic jurist based on the *Qur'an* and the *Sunna*).[2]

There are five areas that broadly define Islamic financing versus what is commonly known as western or conventional financing. These areas include the prohibition of collecting interest on transactions (*riba*), prohibition in entering an uncertain contract (*gharar*), prohibition of gambling (*masir*), prohibition of the use of "un-Islamic" products such as alcohol and pork, and the idea of socially responsible investing.[3]

There are two forms of *riba*, one form is money is exchanged hand to hand but for different quantities and the other is where money is exchanged for money with deferment[4]. The latter form is what is also known as usury or interest and what conventional financing method is largely based on. It is helpful to note that *riba* doesn't preclude one party from charging a premium on a loan based on the riskiness of a project, nor does it prevent deferred payments. However, the idea of *riba* does forbid charging a premium or structuring the payment schedule around financing costs.

The *Shari'ah* also forbids parties from entering a transaction with uncertainty, also known as *gharar*. This is difficult to express since there are almost no transactions that exist without any certainty. Rice University Professor Mahmoud Amin El-Gamal gives a good example of how to comply with the principle of *gharar*:

> Prohibition of (*gharar*) pertains to a person paying a fixed price for whatever a diver may catch on his next dive. In this case, he does not know what he is paying for. On the other hand, paying a fixed price to hire the diver for a fixed period of time is permitted.

Transactions can often avoid *gharar* by being specific and defining what the exchange is taking place. Another issue of *gharar* is the use of insurance because the notion of insurance contracts is

by themselves in nature uncertain. I will explain implications of this and possible solutions to insurance contracts in infrastructure development later in this paper.

Masir, the prohibition of gambling, prevents the use of financial derivatives such as futures and options because it can be viewed very much as a form of gambling. This can have an impact on infrastructure development project financing because a lot of the risk that could have been hedged away using conventional financing techniques will still be prevalent under Islamic financing techniques.

The last two principles are the prohibition of dealing with non-*hamal* products such as alcohol and pork and the idea of socially responsible investing. It should be noted that the prohibition of dealing with non-*hamal* product doesn't prevent the sell of something like alcohol. For example, if Islamic financing was used to fund the transactions of airplanes to an airline, then alcohol still could be served during in flight service. Because the main source of revenue was the airlines and not the sale of alcohol, the financing of the airplanes could still take place in order to comply with Islamic financing.[5] Socially responsible investing is a very broad definition according the Islam. Because society is viewed to benefit from an emergence of a new business, most transactions are seen to comply with socially responsible investing. Thus most infrastructure development projects are seen to comply with the *shari'ah*.

Difficulties with Islamic Finance in Infrastructure Development Projects

Most large scale infrastructure projects are financed non-recourse to the sponsoring companies. This type of financing is commonly known as project finance. Typical project finance deal can have a debt to value ration as high as 80%. Many of the project finance structure can be very long in duration as high as 20 to 30 years. Because the goal of project financed is to transfer risk to parties that can managed it the best, insurance and financial derivatives are often used. As we will see below, Islamic financing and typical project finance deal are sometimes at odds with each other.

The most serious barrier to the growth of Islamic financed for infrastructure projects is the structure of Islamic banks prevents them from taking on long term financing. Islamic banks are not allowed to leverage their balance sheets by taking on debt in order to have the necessary liquidity needed for long term financing.[6] In addition, since many Islamic bankers have limited dealing with long term financing, there will need to be a significant change to those banks' culture of taking on deals with longer duration.[7] Because a lot of infrastructure projects have a financing life span of well over 10 years, sources of Islamic financing will have to find ways to take on longer term deals and change the banking culture away from "short-termism".

Another problem that projects have in terms of attracting Islamic style of financing is the lack of capital. This is driven partly because of the short term nature of Islamic banks. But the lack of capital is also driven by western banking institutions' lack of knowledge of Islamic techniques. [8] Related to lack of knowledge, western style banks are reluctant to enter in Islamic financing because of possible compliance costs issues. These barriers to entry issues could prove to be very lucrative to a western bank that has enough liquidity and the expertise in place to cater to Islamic style of financing.

The last major barrier to accessibility to Islamic financing for infrastructure projects relates to institutional issues. Governments, investors, and banks can differ in the ways that the *Shari'ah* should be interpreted. As bankers try to find innovative solutions to try to attract capital to fund Islamic style contracts, the certainty to know whether an interested party will interpret a contract to be Islamic will grow larger. Majid al Refai of the International Investor addressed a conference in Abu Dhabi: "The nightmare scenario is that you get to the day of closing and someone says there's a *haram* (forbidden) issue and you can't go ahead."[9] Another institutional barrier is the lack common accounting practices which also increases transaction costs and uncertainty.[10]

Innovations to Islamic Project Financing

The restrictions of collecting interest, using insurance and financial derivatives, and entering uncertain contracts coupled with the institutional barriers of aversion for long term contracts, lack of western knowledge of Islamic financing techniques and lack of uniform agreement on *hamal* contracts has left a huge opportunity to those who can find innovative solutions in Islamic project financing. Al Tawari of The International Investor puts it this way:

> The way to understand Islamic finance is to replace the word Islamic with the word structured. Like all structured finance deals, you have constraints that must be overcome with creativity and innovation. Here, the constraints are based on the principles of *Shari'ah*. The question is how the structure a deal given these constraints.[11]

There are deal makers looking to take advantages of these opportunities by finding innovative solutions to raise capital for infrastructure development. The seminal transaction came in 1996 with $200 million Islamically structured financing tranche for the Equate petrochemicals facility in Kuwait which will be covered later in this paper.[12] This section explores some of the latest innovation in Islamic project financing including the uses of *istisna* (commission to manufacture contract), *murabaha*(cost plus sale), *ijara*(financial lease), *sukuk*(Islamic bond), and western co-financing or blending. In addition, there are two material changes that affect Islamic project financing which include the allowance of use of the *adl*(trustee) and the establishment of a uniform Islamic finance body and accounting practices.

In an *istisna* contract one party agrees to buy goods made by a second party with payments occurring at some future date or dates. In most Islamic project finance case, the bank becomes the end user.[13] *Istisna* is heavily used during the construction phase of a project. Most construction *istisna* involves a "back to back" structure which usually involves a sales contract and a hire to produce or manufacture contract. Under the sales contract, a customer agrees to purchase an asset from the bank upon completion. Under the hire to produce contract, the Islamic

banks agrees to pay the manufacturer to build the asset in question (see exhibit 2). The advantage of the *istisna* contract is that it is a fixed rate contract with profit margins set at signing. The critical disadvantage is that it is usually used only for the construction phase a project and as such exposed to refinancing risks. [14]

Murabaha contracts involve the bank making a physical purchase of a completed asset and re-sell it for a higher price. The bank may collect payments during maturity of the contract or on an installment basis. The profits that may be collected by the bank are said to cover the risk that the bank takes by holding on to the asset.[15]

In an *ijara* contract, the Islamic bank purchases an asset and then leases it for a rate that is reviewed and can be adjusted. The profit from the lease compensates the bank for owning the assets and taking on operating risk. Options for the lessor to purchase the asset at the end of the lease are illegal because it introduces uncertainty into the transaction. [16]

Another product innovation that has been catching momentum recently is blending Islamic finance tranche with a conventional finance tranche. This blending is also called co-financing. Projects in Islamic countries benefit from co-financing because it is a way to deepen the capital pool that would otherwise be limited with Islamic only financing. Conventional debt can benefit from the conditions set for Islamintional deb

Exhibit 2

Diagram of an Istisna Contract Structure

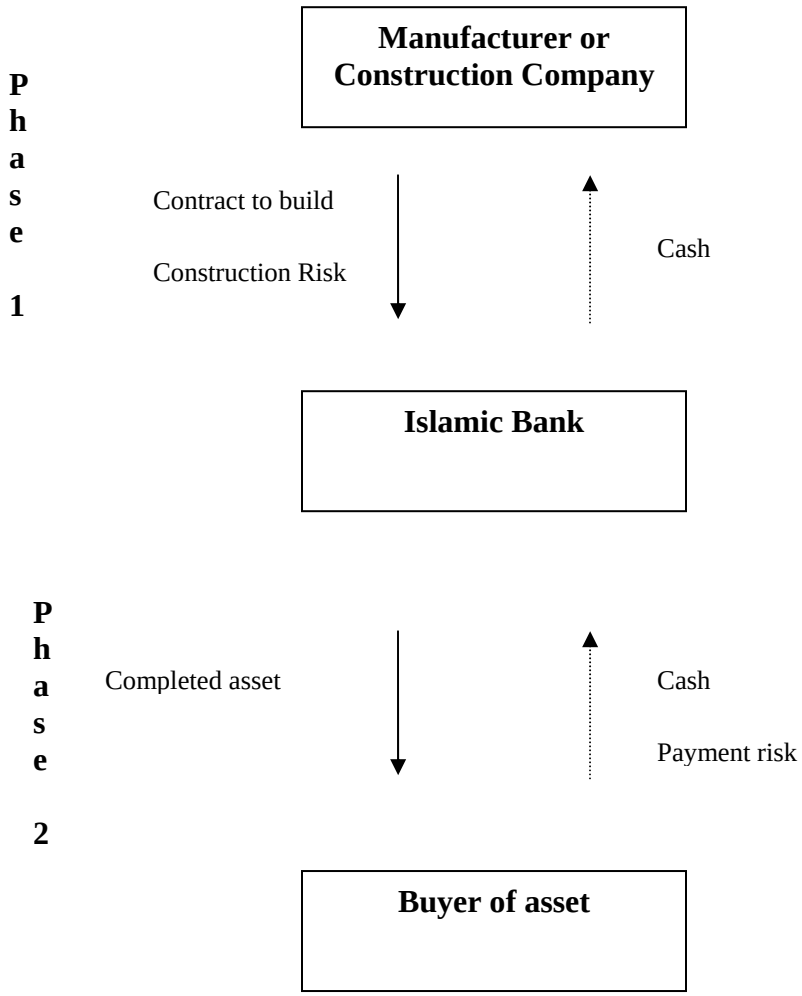
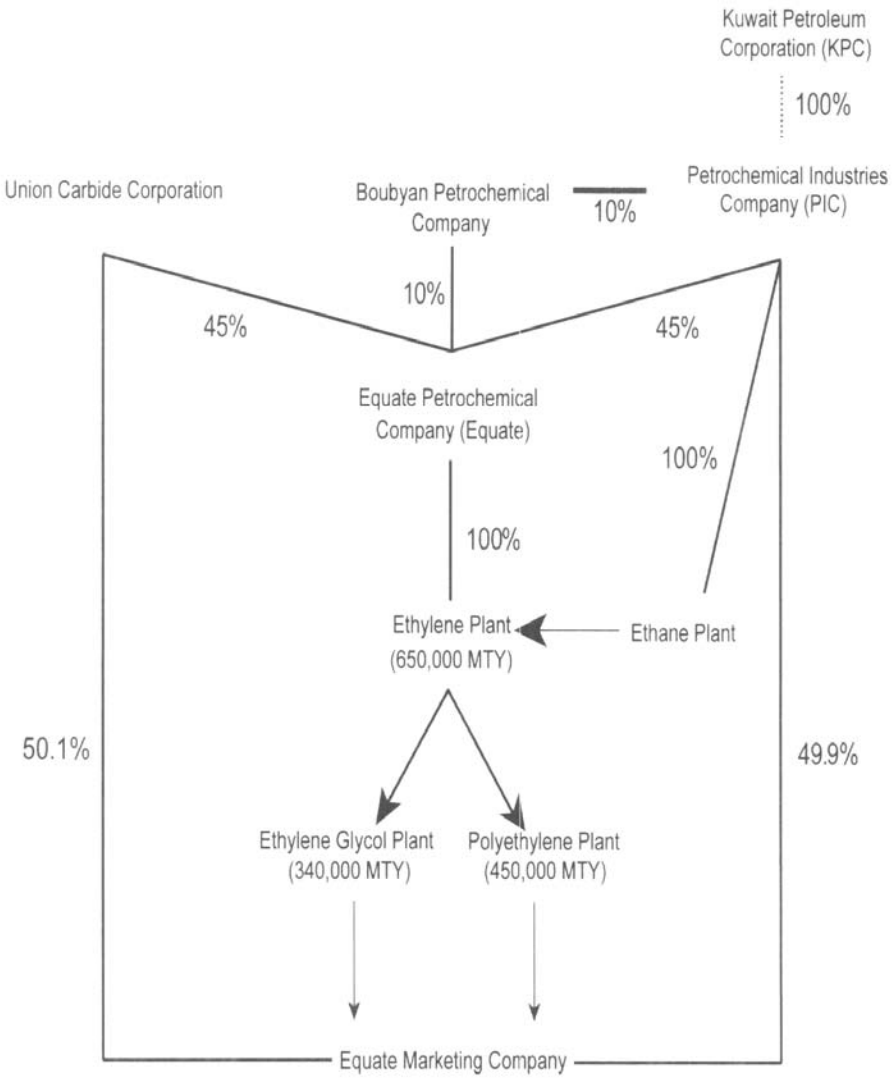


Exhibit 3
Overview of the Equate Project



Source: Based on published sources and company reports.
Notes: Dashed lines signify ownership; bold solid lines indicate product flow.
MTY is metric tons per year. A metric ton equals 1,000 kilograms (kg), or approximately 2,200 pounds (lb.).

Source: Esty, Benjamin, "The Equate Project: An Introductin to Islamic Project Finance", Journal of Project Finance, New York: 2000, Vol.5 Issue 4.

Endnotes

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