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Sharia-Compliant financing for public utility infrastructure

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ABSTRACT

Large-scale and long-term infrastructure projects can struggle to find sufficient financing. Globally, there are expanding efforts to mobilize international financial resources. This paper argues that Sharia-compliant financing represents a potential opportunity as a financial resource for public utility projects. Sharia compliance requires consistency of all transactions with Islamic financial principles. This paper describes Sharia-compliant financing principles and criteria, reviews various financing instruments, and summarizes their use in a variety of utility infrastructure projects across the globe.

1. Introduction

Infrastructure plays an important role in supporting a nation's economic growth and competitiveness. A well-developed infrastructure whether; energy, transport, or telecommunication; is often considered the foundation for economic growth (Andersen and Dalgaard, 2013; Ben Ammar and Eling, 2015; Czernich et al., 2011; Esfahani and Ramírez, 2003; Hashimzade and Myles, 2010).

Due to renewal and extension, the need for infrastructure investment is continuously growing, and public finance may not be sufficient for such investments (OECD, 2007). Many projects involve replacement or upgrades to systems and expense may force many agencies to delay or forego new initiatives (Tortajada, 2016).

To meet infrastructure-financing needs, governments cannot rely solely on their national budget. Thus, the private sector can play a role in infrastructure investment and project financing schemes (Follak, 2015; Marin, 2009; Rarasati et al., 2013; Zawawi et al., 2013). Infrastructure project financing involves a combination of project promoters (sponsors and investors), lenders, government, contractors, suppliers, and customers (Brealey et al., 1996; Rarasati et al., 2013).

The infrastructure and utility sectors cover the industries that produce and deliver power and water. Included are nuclear facilities, electric and gas utilities, independent power producers, energy traders, and renewable energy generators and distributors (Sorensen, 2016). Infrastructure funds are not an entirely new phenomenon and focus on making direct financial investments in various projects related to: power (renewable, coal-fired, natural gas turbine, and nuclear), water (treatment and distribution), transportation (airports, ports, roads, parking lots, and rail links), utilities (gas distribution, electricity transmission, fixed-line telephone, and mobile telephone), and also social facilities (prisons, hospitals, and schools) (Orr, 2007).

While immediate investment needs are estimated in the billions of dollars, the long-term projections for the sector could total trillions. Complicating the economics are the effects of rising costs and prices on discretionary demand for utility services (Beecher, 2013). Utilities should provide sufficient supply of energy and water. The world's energy demands in the next 25 years are expected to require some US$37 trillion in investment (Birol and Bromhead, 2012). According to the World Energy Outlook in 2013, demand for electricity was expected to grow more than any other final form of energy in the next twenty years. Under current policies, global demand is set to nearly double between 2011 and 2035. Growth is not coming only from fast-growing and emerging economies but also in developed countries, electricity demand is forecast to increase over the same period (Birol and Bromhead, 2013).

Financial shortages for long-term investment purposes are particularly relevant because utilities tend to be capital-intensive and have long maturities. These are among the major reasons why private sector initiatives alone have often been insufficient to develop utilities around the world (Clifton et al., 2014). There is a concurrent need for innovation in project financing scheme to accelerate investment in infrastructure assets. A recent innovation in this area is Islamic financing (Rarasati et al., 2013).

Muslims represented 19.9% of the global population in 1990 and 23.4% in 2010. In Europe alone, the Muslim population grew from 29.6 million in 1990 to 44 million in 2010 (Grim and Karim, 2011). Projections for 2050 indicate that worldwide the Muslim population will reach 29.7% of the total population, including an estimated 71 million in Europe (Hackett et al., 2015). Collins (2007) highlighted that the potential to raise capital from Islamic countries is large and the

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liquidity that Islamic finance brings into the mainstream should not be underestimated (Gabbani, 2012).

The Islamic finance industry has been gaining momentum not only in Muslim countries but also globally, and Sharia-compliant investments are on the rise (Karake-Shalhoub, 2008). Islamic finance assets have a compound annual growth rate of 12.68%in the market for Sharia-compliant with total assets of $1.273bn. In 2015, banks and financial institutions offering Sharia-compliant services totalled 360 and 111 of them are conventional banks operating Sharia windows. In 2015,Switzerlandand the UK were ranked among the 20 largest countries in terms of total Sharia-compliant assets (The Banker, 2015).

Islamic financial institutions have recently expanded their global scope, in terms of both raising capital and investing. Western financial institutions have expanded their offerings to include Sharia-compliant financial products (Piper, 2008). Sharia-compliant financing can also be utilized as a complement to conventional project financing to fund large-scale infrastructure development (Sadikot, 2012). The Islamic finance industry offers a wide variety of products ranging from Islamic micro lending to the issuance of “sukuk” (Islamic bonds) for large infrastructure projects.

Islamic markets also offer different instruments to satisfy providers and users in terms of sales, trade financing, and investment. These instruments serve as the basic building blocks for developing a wide array of more complex financial instruments, suggesting potential for financial innovation and expansion in Islamic financial markets (Iqbal, 1997).

Despite positive expectations for Islamic finance and Sharia-compliant financing, there are limitations (as discussed further in Section 3.4). These include the low level of awareness of Islamic financial instruments; particularly the Sharia-compliant financing that is popular in the Gulf countries but limited in Western countries. Sharia-compliant financing modes are also complicated, which limits their adoption. An exception is the UK, where Islamic financial instruments are more developed than in any other western country. The UK is also one of the most important global financial players.

The motivation for this paper comes from the increasing global interest in mobilizing resources for financing large-scale infrastructure projects. There are few and limited studies conducted on applying and using Sharia-compliant financing for this purpose. There appears to be a lack of understanding for its potential role as well as the role of the utility industries of drawing the attention of policy makers and financial advisors to that potential. We focus here on Islamic financial principles, and the different available modes of Sharia-compliant financing, and summarize their use in a variety of utility infrastructure projects.

The literature on Sharia-compliant financing for the utility sectors in particular, including secondary data from books, monographs, research articles, and reports suggests that financing in the utility sectors could fits well with Sharia-compliant financing in general. The paper also explores the possibilities of Sharia-compliant financing in Italy. Data collection and analysis are based on selecting only those projects financed totally or partially via Sharia-compliant financing.

The paper is organized as follows. Section two provides an overview of Islamic finance concepts and fundamentals. In section three we explore the different modes, compliant criteria, trends, and challenges of Sharia-compliant financing. Section four analyses the applicability of Sharia-compliant financing to utility projects through real-world examples where it has provided a strong complementary to traditional financing methods. Section five concludes.

2. Fundamentals of Islamic finance

Islamic finance is a system in which all financial transactions are conducted according to Sharia, the legislative framework and principles that regulate all aspects of public and private life for Muslims (Algaoud and Lewis, 2007; Ayub, 2007; El-Gamal, 2006; Haron et al., 2007). Sharia is derived directly from two primary sources: The Quran and Sunna, which refers to Hadith “sayings” or actions of Prophet Mohamad (Biancone and Radwan, 2015).

Islamic finance identifies four prohibitions. First is the prohibition for “riba” (usury interest), which is seen as an unjustified premium paid to the lender as a condition of taking a loan (Hassan and Lewis, 2009; Iqbal and Mirakhor, 2011; Mirakhor, 2000). However, money can be loaned for business purposes on the basis of profit-loss sharing. Since risk will be allocated to all involved parties while allocating it solely to the borrower it is considered riba (Haron et al., 2007). Second, is the prohibition of “gharar” (uncertainty or speculation), which has two forms: gharar as the object of the contract and gharar in terms of the contract (Haron, 1997). Third is the prohibition of “maysir” (gambling) and refers to all transactions that have the element of gambling, i.e., based merely on chance. (Algaoud and Lewis, 2007). Fourth is the prohibition on investment in “haram” (unethical) businesses products or services (such as alcohol, tobacco, pork-related products, adult entertainment, and weapons) (Alexander, 2010; Biancone and Radwan, 2016; Holden, 2007; Rehman, 2007). Investors, companies, and banks are not permitted to invest in any haram activity or business (Mansoor Khan and Ishaq Bhatti, 2008).

Sharia also identifies additional principles. The principle of profit-loss sharing to investors and investees (Ayub, 2007). The fact that Islamic laws prohibit paying and receiving interest does not imply that they discourage making money or encourage reverting to an all-cash or barter economy. Instead, all parties in a financial transaction should share the risk and the profit or loss of the venture (El Qorchi, 2005). Another important principle is that Sharia-compliant investments must be backed by or based on an identifiable and tangible underlying asset. Money cannot be considered by itself as an asset and is recognized in Islam as a means of exchange, but not as a commodity. The final principle is an obligation for “zakat” (charity/purification) for the poor and needy that can be calculated by a certain percentage of the annual income in case of income exceeding a specific amount.

Sharia-compliant financing principles may be consistent with other financing frameworks and legal requirements. Lombardi (2010), for example, highlighted the interest in ethical financing in Italy and its similarity with Islamic finance. Gimigliano (2014) analysed Italian jurisprudence and concluded that there is no legal obstacle preventing the introduction of Islamic finance in Italy.

3. Sharia-Compliant financing

Sharia-compliant products refer to the modes of financing where a return is predetermined and fixed but within Sharia constraints (Hanif, 2014). Islamic markets offer different instruments to satisfy providers and users of funds in a variety of ways: sales, trade financing, and investment. Basic instruments include “murabaha” (cost-plus financing), “mudaraba” (profit-sharing), “ijara” (leasing), “musharaka” (partnership), and “bay salam" (forward sale) (Iqbal, 1997).

3.1. Sharia-Compliant financing modes

Sharia-Compliant financing modes can be classified as equity-based or debt-based. Equity-based modes are those based on the principle of profit-loss sharing. This mode of financing can be done through bank investments structures, such as “musharaka” (partnership) and “mudaraba” (profit-sharing and loss-bearing) contracts, or through capital markets, Sharia-compliant investments in the form of shares and funds (i.e., mutual, trust, index, investments, Sovereign Wealth, and exchange-traded) (Inderst, 2016).

Musharaka and mudaraba are partnership contracts for conducting business based on capital and labour contribution by the investor and entrepreneur through a profit-loss sharing agreement, similar to conventional venture capital. Musharaka involves the contribution of capital and labour by both the investor and the entrepreneur, while for mudaraba, the investor provides the capital and only the entrepreneur