

## A comparative study between sukuk bonds and conventional bonds in Pakistan capital market

<sup>1</sup> Dr. Aijaz Ali Khoso, <sup>2</sup>Dr. Abdul Subhan Kazi, <sup>3</sup> Dr. Muhammad Munir Ahmedani, <sup>4</sup> Dr. Muneer Ahmed, <sup>5</sup> Fawad Ahmed, <sup>6</sup> Imitaz Ahmed Khoso

<sup>1,3</sup> Assistant Professor, Department of Management Sciences, ISRA University Hyderabad, Pakistan

<sup>2</sup> Associate Professor, Department of Management Sciences, ISRA University Hyderabad, Pakistan

<sup>4</sup> Assistant Professor, Visiting Faculty, Bahria University Islamabad Campus, Pakistan

<sup>5</sup> Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Pakistan

<sup>6</sup> Research Scholar, Faculty of Islamic Studies University of Karachi, Pakistan

### Abstract

This research is a comparative study of sukuk and conventional bonds in Pakistan Capital Market. The data for analysis has been collected from secondary sources of data and data analysis has been done by making graphs on excel. The research approach is inductive so the hypotheses are not required to conduct this research. Valuation, market value, required rate of return, time period, maturity, risk management and profitability has been selected as variables for the data collection; the data for selected variables has been collected for the period of 10 years. On the basis of data analysis, it has been found that percentage increase in the market value of the conventional bonds is higher than that of sukuk; which leads to higher profitability and valuation. The investors are recommended to invest in the conventional bonds because the percentage increase in market value, valuation and profitability is higher for conventional bonds than sukuk. The companies issuing new bonds should issue conventional bonds as they require same rate of return as sukuk and their value increases more over time. The main limitations of the research include the limited sample size, time constraint and geographic limitation.

**Keywords:** Weather, variability, frequency, temperature, rainfall

### Introduction

Economic growth and activity of a country is based upon multiple segments and the illustrations of these segments are expressed in the economic calculator. The core sections of economic calculator further includes elements of consumptions, investment, government expenditures and the net integer of exports (i.e. exports less imports). The investment aspect is one the sections that contributes in the process of economic growth of a country. On the macro level, there are two modes of investment on the basis of risk factor and these modes further includes risk free and risk bearer capital markets (Cakir and Raei, 2007) [6]. There is a significant direct relationship of probability between risk and profitability percentage and this relationship depicts that increase in the risk percentage is directly proportional to the increase in the profitability percentage on equal basis at certain levels. Moreover, the reduction of risk percentage also reduces the percentage of profitability but the change in the element of risk is dependent upon the change in the macro forces, which are present in the external environment (Jobst, Kunzel, Mills and Sy, 2008) [8]. Nevertheless, the preference of making investment in the capital market is also dependent upon the preference of the investor and there are multiple aspects, which encourages the investor to makes investment. Another element, which influences the preference of the investors in Islamic countries, is the Islamic system of making investment regardless the presence of profitability percentage and the percentage of risk. In an overall perspective the core difference between conventional and Islamic based investment principle is the presence of Islamic alternatives with respect to making investment (Wilson, 2004). The etymology regarding the

development and designing of Islamic alternatives for making investment was made in the era Prophet Mohammad and also determined by Al-Quran and AS-Sunnah. The core aspect, which resists an Islamic investor to make investment in the conventional capital markets, is gaining the profit on percentage or interest basis. As stated in the Islamic principles that any investment, whose return is based on percentage is prohibited because the percentage based profits are not according to the stated principles of Islamic investment systems as expressed in Al-Quran and As-Sunnah. The basic characteristics of investment is known as an equal proportion of risk and profit as per the terms and conditions of Islamic principles because the absence of one aspect (i.e. profit or risk or determined fixed percentage) is not considered as investment, despite it is expressed as one sided beneficial deal or contract between two units (Abdel-Khaleq and Richardson 2006) [2].

To overcome this unequal beneficial contract between two units; Islamic financial system developed such investment alternatives, which cop-up with the Islamic principles and laws that are sketched in Al-Quran and As-Sunnah. The investment alternative is determined as sukuk bonds. Bond is expressed as a mutual contract between two units on the basis of agreeing the terms and conditions. In the presence of financial concepts and theories, bonds are expressed as a mutual agreement between two units made upon agreeing the presented percentage of profit, intervals of claiming profit by the investor, alternatives of managing the risk and the maturity aspect, which is related to withdrawing of the invested capital after a specific period of time (Tariq and Dar, 2007) [26]. An integrated vision of Islamic principle and the characteristics of

capital markets, enhance the image of sukuk bonds among Islamic investors, which depicts the offering of capital bonds that are based upon Islamic principles in terms of expressing profits. The system of Islamic investment was developed and came into practice from the era of the 70's and this system has been developed in different capital markets of the world including Malaysia and Pakistan (Adam and Thomas, 2004) [3]. The prime concern of the researcher in regard of performing this research study was in relation to evaluate the importance of Islamic bonds in capital markets. The second element of encouragement for the researcher regarding the accumulation of this research was the evaluation of sukuk and conventional bonds that are present in the capital market.

### Literature Review

The first Sukuk bonds were successfully introduced by Malaysian government in 1983 with the introduction of Malaysian Investment issue (Ariff and Safari, 2012). The structure of the Sukuk Bonds must be asset linked, the profit payment can be fixed or predetermined to the financial institution as well as to the investors, and it gives the right to relocate the ownership by selling their securities market in the capital market, Sukuk issuer generates funds from investors based on an asset, and the profit/loss of the utilization of this asset is then shared among the two parties (Bidabad, Hassan, Ali and Allahyarifard, 2011) [5]. Sukuk serves to imitate the functions of securities in mobilizing the resources form the market and injecting to an enterprise or government and providing stable sources of profits and income to the investors. Sukuk are directly linked with the real sector activities such as funding of trade and production of tangible assets. Sukuk are often considered as the Islamic Equivalent of conventional bonds. It aims to provide financial investment by complying with the shariah rules and gives ownership on assets. The characteristics of Sukuk in terms of maturity date, required rate of return, market value can be defined as: Maturity date of Sukuk bond is define as the data when investor will be repaid the face value of a bond. The maturity period of Sukuk bond is specific and predetermined at the time of issuance. Rate of return can be described as the percentage of face value which represents the annual return of a bond. The payment might be in a form of annually, semiannually or quarterly period (Safari, 2011) [22].

### Conventional Bonds

Conventional bonds are defined as debt instruments that may be issued by federal government, provincial/local government or any corporation. Bonds usually generate two types of cash flows i.e. periodic coupon interest payments and face value of the bond payable at the maturity of the bond. Coupon interest payments remain fixed over the life of the bond regardless of the market interest rate, this is the reason why bonds fall under the category of Fixed-income instruments. These payments are obligatory for bond issuer which means if even he incurs losses, he must pay coupon interest periodically and face value when bond matures (Afshar, 2013). According to FINRA (n.d.), there are different types of risks associated with investing in conventional bonds. Some major risks include interest rate risk, credit risk, duration, inflation risk and liquidity risk. Bonds are becoming more important with time, many companies' specially financial institutions are issuing their bonds, but he found that most of the companies finance

their capital needs through bank loans or issuing equity shares mainly due to high administrative and transaction costs associated with bonds. This shows that regulators need to play a role to increase the focus of companies toward bonds. They can increase focus of companies towards issuing corporate bonds by decreasing administrative and transaction costs. The conventional bonds carry a maturity date which remains fixed, these bonds are available with different maturities i.e. 1 year, 3 years, 5 years, 10 years and 20 years. The coupon rate on bonds can vary according to different maturities as risk of the bond increases with increase in maturity. Therefore, investors' required rate of return goes high to compensate the risk (PIMCO, 2011) [20]. The main factors which affect price of the bond include the rating of the bond, the coupon rate, the difference between coupon rate and market interest rate and the time period since issuance of the bond. The Pakistan Capital Market has gone through many reforms and developmental activities taken in last few years. The investment in Pakistan Capital Market has been growing tremendously over the years as people's appetite is increasing toward investment in stocks and bonds (Finance Ministry of Pakistan, 2013).

### Comparison Between Sukuk Bonds and Conventional Bonds In Pakistan Capital Market

According to Ahmad and Radzi (2011) [25], there is a wide c can be defined as:

- Asset ownership

Conventional bond do not provide a share of ownership in the assets, business or project to the investors. They are a debt obligation to the bond holder whereas Sukuk provides the partial ownership in the assets to the investor on which Sukuk are based.

- Effects of cost

Conventional bondholders are not generally affected by cost of assts, project or business. The overall progress of the underlying assets doesn't affect investors profit or income. In contrast Sukuk holders are affected by any cost related to the asset or business, which reduces its profits and income at the maturity of the bond.

- Issue price

In the conventional bond the face value of bond is based on the issuer credit rating whereas the value of Sukuk bond is based on the market value of a primary asset.

- Investment Criteria

In the conventional bonds, the purpose of the bond is to finance any asset, business or project that fulfills the local legislation whereas in the case of Sukuk bond, bonds must fulfill the shariah Compliant.

- Investment Risk and Rewards

In conventional bond, bondholder usually receives regular interest payments until the maturity of the bond, at maturity bondholder receives principal as well as interest payment on the bonds. In contrast Sukuk bondholder receives a share of profits or loss if incurred on underlying assets.

### Data Analysis

The data analysis is based on quantitative data collected from the secondary sources of data. The researcher has collected data of conventional bonds and sukuk for the last 10 years to compare these two types of bonds in Pakistan Capital Market. The volume of both types of bonds is assumed to be 100,000.

The data for market value, required rate of return and profitability of sukuk and conventional bonds has been collected.

### Market Value

The market value of both sukuk and conventional bond has been gathered for 10 years. The market values of both types of bonds are shown in figure The graph shows that the market value of sukuk was Rs. 30.28 in 2005 which has grown by Rs. 19.22 for the last 10 years; this shows a growth of approximately 63.5% for the 10 year period. The market value of sukuk increased in 8 years other than 2008 and 2014. On the other hand, market value of conventional bonds in 2005 was Rs. 4.17 and increased to Rs. 16.65 in the year 2014; this shows a growth of approximately 300% for the 10 year period. The market value of conventional bonds increased visibly in the year 2006 and it showed growth in all years except 2008, 2010 and 2013. The reason behind the higher increase in the value can be different market factors. The analysis shows that percentage increase in market value of conventional bonds is more than that of sukuk Bonds but in terms of absolute value sukuk bonds have been appreciated more. It has been analyzed in data analysis that market value of conventional bonds appreciated more in terms of percentage change for the last 10 years whereas the market value of sukuk appreciated more in terms of the absolute value for the last 10 years.

### Valuation

The valuation of bonds is calculated as multiplication of market value and the number of shares outstanding at the end of the year. In this case, it has been assumed that 100,000 conventional bonds and 100,000 sukuk are outstanding in the market and the number remains same throughout the 10 years. The market valuation for both bonds is given. The total market value of 100,000 sukuk in 2005 was Rs. 3.028 million, whereas value of same number of conventional bonds was Rs. 417,000 only. The total market value of sukuk in 2005 was Rs. 4.95 million in 2014, whereas value of conventional bonds was Rs. 1.665 million. The total market value of sukuk bonds increases by 63.5% in the 10 years period. While, total market value of conventional bonds increases 300% over same period. On the other hand, the valuation of sukuk increased more in terms of absolute value.

### Required Rate of Return

Required rate of return is the minimum return desired by an investor when they are investing in a particular security (Brigham and Joel, 2010). The required rate of return varies from security to security. The required rate of return for sukuk and conventional bonds for the last 10 years is shown the required rate of return for sukuk and Conventional bonds is exactly same in all 10 years. The required rate of return has increased significantly over the last 10 years; the required rate of return in 2005 was 6.78% for both sukuk and Conventional bonds. The required rate of return has increased to 14% in 2014, it has increased in every year except 2007; it decreased by 0.29% in 2007. Brigham and Joel (2010) contrast this data, they believe that the required rate of return on two different securities carrying different amount of risk should be different. On the other hand, the data collected shows exactly same figures for the required rate of return for sukuk and conventional bonds.

### Maturity, Time Period and Risk Management

The time period refers to the time after which investor will get coupon payment or return and maturity is the time after which the bond or sukuk will mature and face value of the bond will be returned, whereas risk management refers to whether the market risk or other risk will be borne by the issuer of the bond or the one who purchases it (Brigham and Joel, 2010). The time period of both the sukuk and conventional bonds under consideration is six months; it has remained same over the last 10 years. The maturity of both sukuk and conventional bonds is also same; the maturity for both types of bonds is 5 years and it has remained same over the last 10 years. In both types of the bonds, risk is managed by the issuer of the bonds in all 10 years; it makes both the sukuk and conventional bonds less risky for the investors. Maeda (2009) <sup>[14]</sup> supports these findings, she concluded that the time period and maturity are exactly same when the bonds pay semiannual interest and have same life.

### Research Objectives

The ground base of this research relies upon the comparison, which is made between conventional and sukuk bonds market on the basis of prime attributes and the nature of the bond. For the execution of the research study in an effective manner, following are the research objectives formulated on the basis of the research aim.

- To compare the Sukuk and Conventional bonds in Pakistan Capital Market on the basis of market value.
- To compare the Sukuk and Conventional bonds in Pakistan Capital Market on the basis of valuation / total market value.
- To compare the required rate of return on Sukuk and Conventional Bonds in Pakistan Capital Market.
- To compare the Sukuk and Conventional bonds in Pakistan Capital Market on the basis time period, maturity and risk management.
- To compare the performance of Sukuk and Conventional Bonds in Pakistan capital market on the basis of profitability.
- To recommend investors / issuers of bonds for their future investments / borrowings on the basis of variables evaluated.

### First Research Objective

To achieve the first objective of this research, the market value of sukuk and conventional bonds for last 10 years was compared. The market value of sukuk and conventional bonds in 2005 was Rs. 30.28 and Rs. 4.17 respectively. The market value of sukuk and conventional bonds increased significantly over the last 10 years; sukuk and conventional bonds showed an increase of 63.5% and 300% for the last 10 years. This shows that the percentage growth in market value of conventional bonds was significantly higher. This is also supported by the research findings of Ahmad and Radzi (2011) <sup>[25]</sup>; they concluded that conventional bonds grow quicker and are safer instruments to invest because they offer fixed return and are less risky.

### Second Research Objective

To achieve the second research objective, the valuation or total market value of sukuk and conventional bonds was compared.

The valuation showed identical trend to the market value because the number of outstanding bonds for both sukuk and conventional bonds were assumed constant at 100,000. This showed that the percentage growth in valuation of conventional bonds is significantly higher than the conventional bonds. This is supported by the research findings of Elton and Gruber (2002); they concluded that the market value of bonds has a direct impact on the valuation or total market value of the bonds.

**Third Research Objective**

To achieve the third research objective, required rate of rate for both sukuk and conventional bonds was collected and compared. Data analysis shows that the required rate of return for both sukuk and conventional bonds has remained exactly same over the last 10 years. However, this contrasts the literature as PIMCO (2011) [20] argue that the required rate of return for two securities of different risk, return or maturities is always different.

**Fourth Research Objective**

To achieve the fourth research objective, the time period, maturity and risk management of sukuk and conventional bonds was compared. The data analysis shows that the time period and maturity of both types of bonds is 6 months and 5 years respectively. Both sukuk and conventional bonds offer the risk management facility which reduces the risk of investors significantly. Maeda (2009) [14] supports these findings; she believes that bonds offering risk management facility are less risky and are often preferred by investor.

**Fifth Research Objective**

To achieve the fifth research objective, the profitability of sukuk and conventional bonds has been compared. Since the required rate of return for both securities is same, so the profitability is entirely dependent on the changes in market value of that security. The percentage change in profitability of conventional bonds was higher than that of sukuk because of higher percentage increase in the market value. Previous study shows that the profitability is dependent on the market value, maturity and required rate of return of the security (Crabe and Fabozzi, 2002).

**Sixth Research Objective**

To achieve the sixth research objective, the recommendation has to be made on the basis of all variables analyzed in the data analysis. The variables show that the percentage increase in market value, valuation and profitability of conventional bonds was more than that of sukuk so the investors who desire to earn more must invest in conventional bonds. The valuation and profitability have increased due to market value because these

two have a positive relation with the market value. Other variables remained same for both sukuk and conventional bond for the 10 year period from 2005 to 2014; those variables include required rate of return, time period, maturity and risk management. The time period remained same at 6 months for both types of bonds over the last 10 years because both the bonds pay semiannual interest rate. The maturity remained 5 years because the sukuk and conventional bonds with maturity of 5 years are taken into account only.

**Recommendations**

On the basis of these findings, the investors are recommended to invest in the conventional bonds because the percentage increase in market value, valuation and profitability is higher for conventional bonds. The investors will invest in the conventional bond if they are not concerned with Islamic values because Islam prohibits the use of interest rate and all fixed income securities. The investors who are highly concerned with the religious values will invest in the sukuk because it does not involve any interest rate and is permissible by Islam. If the investor goes for sukuk, he will sacrifice the excess value and profitability of the conventional bonds as their value and profitability increase more over the period.

**Limitations of the Study**

Every researcher has a limited time to be devoted for a specific research and this becomes a limitation because sometimes researches require more time than available and this affects the quality of the research. The second limitation is the sample size of the research because the data has been collected for selected variables of sukuk and conventional bond only; addition of more variables could lead to more authentic results. The smaller sample size always leads to inaccurate results as compared to the higher sample size. The third limitation is the geographic limitation as the research is focused on Pakistan only. As the result is focused on Pakistan only so the findings of this research are limited to a single geography i.e. Pakistan and findings cannot be generalized to any other country because data collection is based on Pakistan. The fourth limitation of this research is the unavailability of the reliable data as some part of the data is not being matched with the literature review; For example: the collected required rate of return is same for sukuk and conventional bonds but the literature review suggests that these should not be the same. This indicates that the part of the data was not reliable which is due to the unavailability of the reliable data. The fifth limitation of this research is the analysis of quantitative data only as major findings and conclusions have been drawn from the analysis of quantitative data. Qualitative data has been collected for the purpose of literature review only.

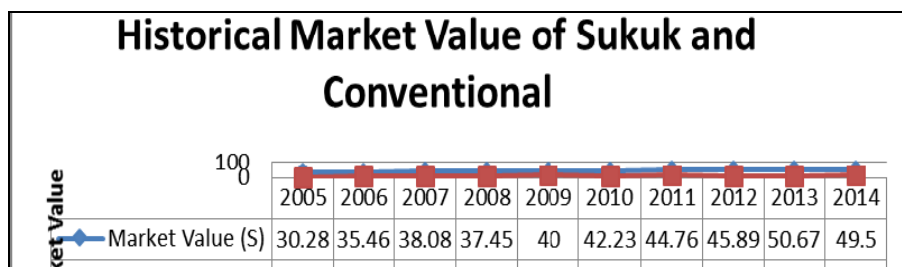


Fig 2: Comparison of Market Value of Sukuk and Conventional Bonds

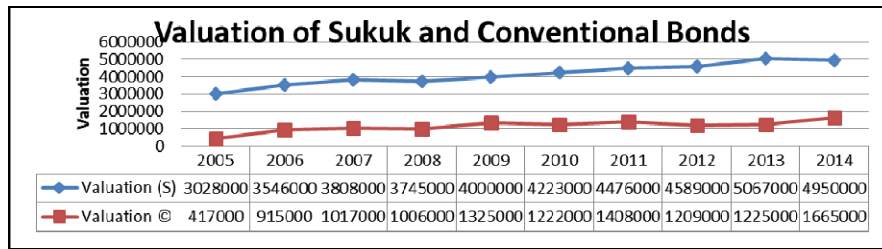


Fig 3: Comparison of Valuation of Sukuk and Conventional Bonds

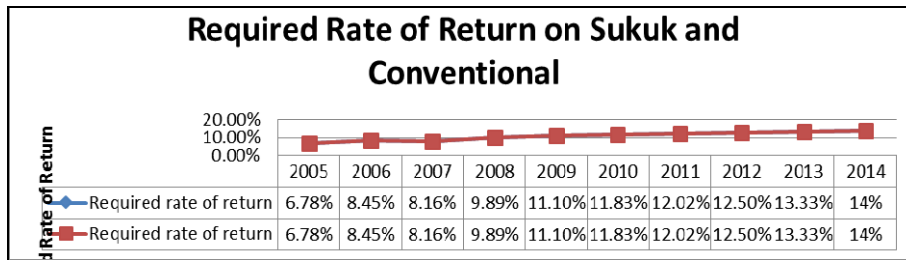


Fig 4: Comparison of Required Rate of Return on Sukuk and Conventional Bonds

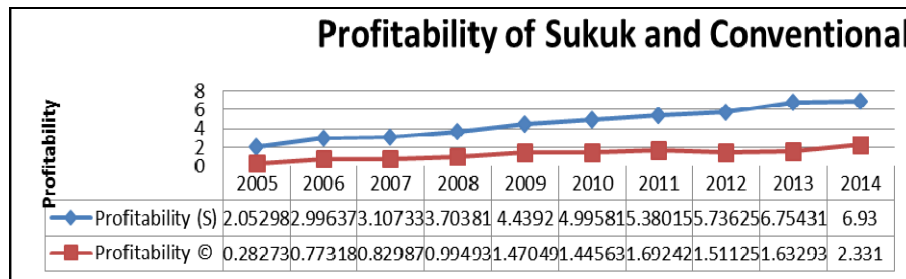


Fig 5: Comparison of Profitability of Sukuk and Conventional Bonds

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