Global Management Journal for Academic & Corporate Studies (GMJACS)
Fall 2023, Vol.13,No.2, PP. 28-44

Published by Bahria Business School, Bahria University Karachi Campus

Harmony and Discord: Unraveling the response of Yields of Fixed Income Securities against Economic Instabilities

AmeenUllah Aman[1,*], Abdus Salam Shaikh[2], & Kamran Aziz Ahmed Siddique[3]

Abstract

In the times of macroeconomic and financial instability, governments are prone to issue excessive fixed-income securities in local as well as international markets while offering excessive rates of returns to fill their financing gaps. Therefore. this study aims to investigate the effect of the prevalent macroeconomic and financial instability of a country on the yields of Sukuk (Islamic bonds) and conventional bonds. The study collects the monthly data from Pakistan for the period 2015 to 2022 considering that the country has been facing such economic instabilities for the last few years. The study finds that the yields of both Sukuk and conventional bonds have positive effect of some of the macroeconomic factors including interest and inflation rates and risk premium. Whereas, the movement in foreign exchange and the stock exchange upset conventional yield only. A research study unveiled potential opportunities for investors opting to invest in fixed-income assets. The study also highlighted diversification benefits by investing in both conventional and Sukuk bonds.

Keywords: Bond Yield, Sukuk Yield, Interest Rate, Risk Premium, Inflation

1. Department of Management Sciences, SZABIST University Karachi, Pakistan. Corresponding author, email: ameenullahaman.s@gmail.com
2. Accounting and Finance Department, KIET Karachi, Pakistan. Email: Abdus@kiet.edu.pk
3. Department of Business Administration, IQRA University, Karachi, Pakistan. Email: kamranahmed_89@hotmail.com

1. INTRODUCTION

Academic literature generally seems to puzzled by fixed income instruments' dynamic response to macroeconomic and financial instabilities in global financial markets (Naifar & Hammoudeh, 2016). In light of global economic uncertainty, financial crises, and ever-changing market dynamics, understanding the complicated relationship between these instabilities and fixed-income instruments' returns is vital. This study examines the relationship between macroeconomic and financial instability and Sukuk and Conventional bond yields.

Sukuk, Islamic financial assets, have grown in worldwide markets. With unique risk-sharing and asset-backed arrangements, Sukuk are a significant fixed-income instrument. In contrast, conventional bonds, rooted in financial systems, have long dominated worldwide investor portfolios. Both instruments help mobilize money, but they react differently to market factors.

Sukuk and conventional bond performance indicates market attitudes, risk perceptions, and economic conditions, influencing decision-making, risk management, and policy formation. Navigating global financial markets requires understanding how macroeconomic and financial instability affect Sukuk and Conventional bond returns.

Few scholars have studied the relationship between macroeconomic and financial instability and Sukuk and Conventional bond yields. Sukuk issuance and trading are governed by unique principles, thus it's important to study how these instabilities affect Sukuk and conventional bond returns and how they alter under different economic conditions.

The relationship between macroeconomic and financial instability and Sukuk and Conventional bond yields is poorly understood in the global financial environment, shaped by the 2008 financial crisis, geopolitical events, and the COVID-19 pandemic. This study compares Sukuk and conventional bonds to fill this knowledge gap.

The rise of Islamic banking and Sukuk needs an assessment of how these instruments react to external shocks and economic changes. Investors, financial institutions, and regulators depend on precise risk and return assessments, therefore this issue affects them beyond academia. This empirical study uses comprehensive financial theories to improve knowledge and guide market investors and policymakers.

2. LITERATURE REVIEW AND THEORETICAL BACKGROUND

The theoretical academic debate shows that Sukuk and conventional bond yields are linked to macroeconomic and financial instability. Several theories offer different perspectives on fixed-income market dynamics (Williams 1938). The popular Efficient Market Hypothesis (EMH) states that asset values are based on all relevant information and rational expectations. The efficient market model may not adequately capture the complexities of fixed-income instruments, especially amid economic uncertainty, since research typically shows deviations from this premise. Islamic finance sukuk may defy assumptions.

The Behavioral Finance approach shows how investor behavior affects bond rates during macroeconomic and financial turmoil. Herding and reactivity to news might cause yield changes beyond market expectations. Sukuk investors may behave differently during instability due to Shariah and ethical issues. Agency Theory also illuminates issuer-bondholder relationships, including potential conflicts of interest. Agency difficulties in Sukuk and conventional bonds must be understood, especially during financial stress when defaults may increase (Fama & Schwert, 1977; Campbell, 1987; Campbell & Ammer, 1993).

Macroeconomic factors and Sukuk and conventional bond performance have been studied empirically, but the results are mixed. Research on traditional bonds repeatedly shows that bond yields are inversely related to economic indicators including GDP growth, inflation, and interest rates. Islamic Sukuk may challenge preconceptions with varied levels of sensitivity. Sukuk and conventional bonds are more systemically risky during financial crises. After the 2008 financial crisis, investors sought safe-haven assets, increasing bond rate volatility. Risk perceptions and yields were

affected by this phenomena. Empirical research have examined how credit risk affects Sukuk and conventional bond yields. Credit rating downgrades, issuer financial problems, and bond rate increases are linked. The relationship between Sukuk and ordinary bonds may vary.

During financial crises, Sukuk, controlled by Islamic banking standards, offers unique challenges. Avoiding interest and using ethical, asset-backed transactions might make Sukuk seem more resilient. Exchange rates affect sukuk and bond yields through currency risk. Investors may get lower home currency returns if these debt products' currencies weaken. In addition, exchange rate differentials can affect bond yields, as higher rates in one country attract foreign capital.

Additionally, inflation influences sukuk and bond yields by affecting actual returns. Investors seek higher rates to offset inflation-induced buying power loss. Bond yields are affected by central banks raising interest rates to combat inflation. Inflation can affect sukuk yields by affecting asset returns. Interest rates affect sukuk and bond yields significantly. Central banks hiking rates to prevent inflation make fixed-income securities less appealing, lowering prices and raising yields. By affecting investor choices, stock market dynamics affect sukuk and bond yields. When the economy is well, investors may choose equities to bonds and sukuk, lowering prices and raising yields.

Sukuk and bond yields are highly influenced by risk premiums, which compensate for losses. Credit, default, and liquidity issues raise investor yield demand. The risk premium considers economic conditions, issuer credibility, and market volatility. The academic literature also acknowledges how economic changes affect Sukuk and conventional bonds. The 2008 financial crisis, geopolitical upheavals, and the COVID-19 pandemic have changed global financial markets. The above changes in market dynamics and risk perceptions highlight the need to study how Sukuk and conventional bonds react to macroeconomic and financial instabilities.

Regarding the gap in returns between sukuk and bonds, the research that is currently available gives conclusions that are contradictory to one another. According to the findings of Ayturk et al. (2017), the primary market spreads of sukuk and bonds are driven by the same reasons. This suggests that market players see these instruments in a comparable manner. According to Hossain et al. (2021), there are no significant differences in the returns of bonds and sukuk. This is something that they also see. They do, however, point out that there is a greater total risk associated with sukuk, and that investors are not appropriately compensated for this risk. With that being said, Balli et al. (2021) have demonstrated that there are significant differences in the way yields are calculated between bonds and sukuk. They have showed that bonds are far more responsive to swings in the global market in comparison to sukuk.

At the same time, Naifar and Hammoudeh (2016) came to the conclusion that there is no connection between the returns on Middle Eastern sukuk that were investigated and the uncertainty that exists in traditional bond markets. In addition, Asmuni and Tan (2021) provide evidence that validates the existence of significant differences in returns between sukuk and bonds issued by the

government in the Malaysian market. They attribute these differences to the impact of liquidity issues with which they are associated. A comparison of the yields on conventional bonds and sukuk that are listed on the Indonesia Stock Exchange was carried out by Fathurahman and Fitriati (2013). This study was conducted in a manner that is analogous to the previous one. The results of their investigation suggest that sukuk provide returns that are superior to those offered by traditional bonds.

The technique that was applied in a number of different examinations is primarily responsible for the divergence that has been observed in the academic discourse regarding the possible difference in returns that could be obtained between sukuk and conventional bonds. To begin, the majority of the studies that have been conducted in the past have compared the returns on traditional bonds and sukuk. These studies have either compared the returns on sukuk and bonds issued by the same entity, or they have compared the returns on sukuk and bonds that are classified together based on the characteristics of the issuers of these instruments. Because the original technique produces a final sample that is defined by its modest size and a relatively restricted number of issuers, the reliability of the eventual conclusions is impacted as a result of this. With the second technique, it is anticipated that a more comprehensive sample will be obtained. This matching technique, on the other hand, does not take into account important elements that influence the returns on sukuk and bonds, such as the size of the issue, the kind of issuance, or the year of issuance, which are different for each issuance. In addition, a number of studies make use of data on returns obtained from the secondary market in order to investigate the differences in returns that occurred between the two securities. The use of secondary market data for return analysis may, however, lead to findings that are erroneous or misleading (Safari et al., 2013). This is because the sukuk market and other regional bond markets are affected by a lack of liquidity. Finally, certain studies concentrate on analyzing domestic or restricted regional markets, thereby restricting the significance and applicability of their findings due to the limited number of issuers and participants in these markets, as well as the relatively limited connections with international markets in comparison to international issuances.

In conclusion, the extant theoretical and empirical research on the response of Sukuk and conventional bonds to macroeconomic and financial instabilities provides a nuanced understanding of these intricate relationships. This is because the literature covers both theoretical and empirical aspects of the topic. Several theories, including the Efficient Market Hypothesis, Behavioral Finance, Agency Theory, and the inclusion of Islamic finance principles, have made significant contributions to our knowledge of the dynamics of the fixed-income market. Through the use of empirical evidence, the significance of undertaking extensive assessments that take into consideration the unique characteristics of Sukuk and the many ways in which they react to economic circumstances is brought to light. Because of the fact that it is still developing, it is of the utmost importance to do ongoing research on the topic of global financial landscapes. When it comes to investors, policymakers, and market participants who are navigating the complexity of Sukuk and

conventional bond markets within the context of a dynamic economic environment, this research has practical implications.

3. DATA AND METHODOLOGY

This analysis utilized data pertaining to sukuk yields, bond yields, interest rates, inflation, risk premiums, exchange rates, and stock performance in Pakistan. A total of 96 observations were collected, encompassing monthly data for all parameters from 2015 to 2022. The data utilized in this study consists of secondary data obtained from the official website of the State Bank of Pakistan. The impetus for this analysis was derived from the diversification benefits offered by the Pakistan Bond Market. The rationale for selecting Pakistan is based on the recent emergence of diverse bond variations inside Pakistan's bond market throughout the past five years. Further, there has been a notable surge in the government of Pakistan's fixed-income debt with figures indicating that it has reached 87.2% of the Gross Domestic Product (GDP) in the year 2021. These rising debt levels are in response to the massive economic turmoil that the country has been facing over the last few years. Therefore, gaining a comprehensive understanding of the dynamics of fixed-income securities within this particular setting holds practical significance for investors in Pakistan who are navigating through a period of increased economic concerns. The following econometric models are employed for empirical inquiries subsequent to fulfilling all diagnostic prerequisites.

$$CBY_t = \alpha_t + \beta_1 (IR)_t + \beta_2 (INF)_t + \beta_3 (RP)_t + \beta_4 (ER)_t + \beta_5 (SP)_t + \varepsilon_t \quad .....1$$

$$SBY_t = \alpha_t + \beta_1 (IR)_t + \beta_2 (INF)_t + \beta_3 (RP)_t + \beta_4 (ER)_t + \beta_5 (SP)_t + \varepsilon_t \quad .....2$$

where, CBY represents the yield on the conventional bond; SBY represents the yield on the sukuk bond; IR represents the interest rate; INF represents inflation; RP represents risk premium; ER represents the exchange rate; SP represents the stock performance, t is for time series and ε denotes error.

4. RESULTS

Table 1 presents descriptive statistics of all the variables included in the models 1 and 2. Significant variations are evident in the average values and standard deviations, indicating diverse patterns within the dataset. The yields of both bonds and Sukuk, which represent fixed-income securities, present distinct mean and standard deviation values. Sukuk, characterized by a slightly higher mean and lower standard deviation, suggests a more stable distribution compared to bonds. In terms of inflation, there is substantial variability with a broad range spanning from 1.30 to 14.60, signalling diverse inflationary conditions. Further, the risk premium, assessed through standard deviation, displays moderate variability, capturing fluctuations in risk perceptions. The interest rate showcases a varied range, reflecting different interest rate scenarios. Additionally, the exchange rate (fxrate) reveals a notable standard deviation, underscoring significant fluctuations in currency values. Examining the PSX Index, a representative of the stock market, its substantial mean and standard deviation suggest noteworthy market variability.

Next, table 2 shows correlation scores between different factors. All the scores are

less than 0.70 which confirms the absence of problem of multicollinearity in our models.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max	Obs
bond	9.6790	2.1684	6.4800	13.8800	96
sukuk	10.3867	1.5442	9.4750	10.3890	90
inflation	6.2594	2.9696	1.3000	14.6000	96
riskprem	2.5311	1.2823	-1.0220	4.8316	96
intrate	10.8763	1.9602	7.5380	14.3649	96
fxrate	118.4452	23.1434	97.4720	167.7064	96
psx	35,426	7,800	17,243	50,592	96

Table2: Correlation Analysis

	inflation	riskprem	intrate	fxrate	psx
inflation	1.0000				
riskprem	-0.5103***	1.0000			
	0.0000				
intrate	0.6374***	-0.0038	1.0000		
	0.0000	0.9707			
fxrate	0.6594***	-0.6339***	0.1164	1.0000	
	0.0000	0.0000	0.2586		
psx	-0.2461*	-0.3506***	-0.6874***	0.2391*	1.0000
	0.0156	0.0005	0.0000	0.0190	

Source: Author's estimation

4.1 Results for Conventional Bond Yield

Augmented dickey fuller test is used to check whether the data is stationary or not. Table 3 reflects the values of the analysis. Since all the values of test statistics of all the variables are greater than 5% critical values, we

may conclude that the unit root does not exist in the data set or the data series is stationary. Further, Table 4 presents a cointegration test of all the variables in the study. The t-stat for bond yield shows the value as 150.7390 which is greater than 5% critical value of 94.15 confirming the presence of cointegration, it shows that long-run relationship exist in the variables which enables us to proceed further for regression analysis. Furthermore, Table 5 reflects the results of the granger causality test. It shows that the lagged values of inflation and forex rate do not cause bond yield as the probability value is greater than 0.05. However, the lagged values of risk premium, interest rate and psx closing point cause bond yield as probability value is less than 0.05. Also, all the combined variables affect bond yield since the probability value is less than 0.05

Table 3: ADF Test for Unit Root

Variable	Test Statistic	5% Critical Values
bond	-1.785	-1.662
inflation	-1.694	-1.662
riskprem	-2.916	-1.662
intrate	-1.782	-1.662
fxrate	-2.019	-1.95
psx	-2.177	-1.662

Table 4: Cointegration test

Test Statistic	5% critical value
123.8897	94.15

Table 5: Granger Causality Test

Equation	Excluded	chi2	df	Prob.
Bond	inflation	1.3766	1	0.2410
Bond	riskprem	24.8510	1	0.0000
Bond	intrate	7.0929	1	0.0080
Bond	psx	4.5413	1	0.0330
Bond	fxrate	1.0533	1	0.3050
Bond	ALL	27.4670	5	0.0000

Table 6: Multiple Regression Analysis

	Coefficient	S.Error	Stats	Prob.
Constant (α)	8.7489	1.9443	4.5000	0.0000
inflation	0.1615	0.0764	2.1100	0.0370
riskprem	0.7492	0.1197	6.2600	0.0000
intrate	0.5694	0.1107	5.1500	0.0000
fxrate	-0.0190	0.0076	-2.5100	0.0140
psx	-0.0001	0.0000	-2.5400	0.0130
Dependent Variable : Conventional Bond Yield (PIB 5 Years)				
R-squared=0.7861 ; Adj R-squared=0.7742				
F-Statistics (Prob.) = 66.16 (0.0000)				

Source: Author's estimation

The primary findings of the multiple regression model on conventional bond yield are presented in Table 6. The results indicate that there is a statistically significant positive relationship between inflation (0.1615, $P < 0.05$) and the yield of the Gross Domestic Product (GDP) over a period of five years. In a similar vein, it can be observed that the risk premium (0.7492, $P < 0.05$) exhibits a statistically significant and positive impact on the yield of the PIB 5 Years. Furthermore, the statistical analysis reveals that the interest rate (0.5694, $P < 0.05$) exhibits a statistically significant and beneficial impact on the 5-year yield of the Gross Domestic Product (GDP). The foreign exchange rate, with a coefficient of -0.0190 and a significance level of less than 0.05, exhibits a statistically significant negative impact on the 5-year yield of the Gross Domestic Product (GDP). The variable PSX, with a coefficient of -0.0001 and a significance level of $p < 0.05$, exhibits a statistically significant negative impact on the 5-year yield of the Gross Domestic Product (GDP). The results of the multiple regression analysis suggest that the independent variables included in the study together have a significant impact on the dependent variable, accounting for 78.61% of its variance, as evidenced by the r-square value of 0.7861. Based on the aforementioned findings, it can be inferred that various macroeconomic and financial conditions exert a substantial influence on the yield of conventional bonds. These findings align with well-established financial principles (Almaskati, 2022; Bhuiyan, Puspa, Saiti, & Ghani, 2020; Boukhatem, 2022). Inflation and interest rates, as recognized factors impacting bond yields, mirror the principles of the time value of money and inflationary expectations (Alfalah, Stevenson, & D'Arcy, 2022). Further discussion on our results is provided is the last section of this study.

4.2 Results for Sukuk Yield

Table 7 reflects the values of augmented dickey fuller analysis for the sukuk model. Since all the values of test statistics of all the variables are greater than 5% critical values, we may conclude that the unit root does not exist in the data set or that the data series is stationary. Further, Table 8 presents a cointegration test of all the variables in the study for the sukuk model. The t-stats for sukuk yield shows the value as 123.8897 which is greater than 5% critical value i.e. 94.15 which confirms the presence of cointegration, it shows that a long-run relationship exists in the variables which enables us to proceed further for regression analysis. Moreover, Table 9 presents the results of the granger causality test. It is clear that the lagged value of interest rate and stock market development do not cause sukuk yield as their probability value is greater than 0.05. However, the lagged values of risk premium, inflation rate and forex closing point cause sukuk yield as probability value is less than 0.05. Also, all combined variables affect sukuk yield since their probability value is less than our significance level.

Table 7: ADF Test for Unit Root

Variable	Test Statistic	5% Critical Value
Sukuk	-1.919	-1.663
inflation	-1.694	-1.662
riskprem	-2.916	-1.662
intrate	-1.782	-1.662
fxrate	-2.019	-1.95
psx	-2.177	-1.662

Table 8: Cointegration test

Test statistic	5% critical value
123.8897	94.15

Table 9: Granger Causality Test

Equation	Excluded	chi2	df	Prob.
Sukuk	inflation	7.0677	1	0.0080
Sukuk	riskprem	4.9152	1	0.0270
Sukuk	intrate	1.8481	1	0.1740
Sukuk	fxrate	5.7809	1	0.0160
Sukuk	psx	0.0350	1	0.6520
Sukuk	ALL	10.2130	5	0.0450

Table 10: Multiple Regression Analysis

	Coefficients	S.Error	T-Stats	Prob.
Constant(α)	10.3463	1.8583	5.5680	0.0000
inflation	0.3775	0.0726	5.2000	0.0000
riskprem	0.7534	0.1132	6.6500	0.0000
intrate	0.2845	0.1044	2.7300	0.0080
fxrate	0.0476	0.0071	6.7100	0.0000
psx	-0.0000	0.0000	-1.7300	0.0880
Dependent Variable : Sukuk Bond Price				
R-squared=0.6335 ; Adj R-squared=0.6117				
F-Statistics (Prob.) = 29.04 (0.0000)				

Table 10 demonstrates that there is a statistically significant positive relationship between inflation (0.3775, P < 0.05) and sukuk yield. Moreover, the study found that the risk premium (0.7534, P < 0.05) exhibits a statistically significant positive impact on the yield of sukuk. Furthermore, it is seen that the interest rate (0.2845, P < 0.05) has a considerable and beneficial impact on the yield of sukuk.

Moreover, the foreign exchange rate (0.0476, P< 0.05) exhibits a positive and statistically significant impact on the yield of sukuk. Nevertheless, the statistical analysis reveals that the variable Psx (-0.0000, P > 0.05) does not exhibit a statistically significant impact on the sukuk yield, as determined by the 5% significance threshold. The results of the multiple regression analysis indicate that all of the explanatory factors included in the study exhibit a statistically significant association with sukuk yield, accounting for approximately 63.35% of the variation observed. The aforementioned findings align with the theoretical propositions on the relationship between macroeconomic and financial factors and the yields of sukuk bonds (Aman, Naim, & Isa, 2019). .

These findings align with well-established financial principles (Almaskati, 2022; Bhuiyan, Puspa, Saiti, & Ghani, 2020; Boukhatem, 2022). Inflation and interest rates, as recognized factors impacting yields of fixed income securities, mirror the principles of the time value of money and inflationary expectations (Alfalah, Stevenson, & D'Arcy, 2022). Further discussion on our results is provided is the last section of this study.

5. CONCLUSION AND DISCUSSION

In the context of traditional bonds, yields are significantly influenced by inflation, risk premium, interest rates, exchange rates, and the performance of the stock market. Similarly, sukuk yields are intricately linked to inflation, risk premium, interest rates, and exchange rates. Theoretically, these findings align with well-established financial principles (Almaskati, 2022; Bhuiyan, Puspa, Saiti, & Ghani, 2020; Boukhatem, 2022). Inflation and interest rates, as recognized factors impacting bond yields, mirror the principles of the time value of money and inflationary expectations (Alfalah, Stevenson, & D'Arcy, 2022). The positive coefficients associated with risk premium in both scenarios imply that investors seek higher returns when undertaking additional risk, a widely acknowledged principle in financial literature. The negative coefficient for exchange rates in conventional bonds indicates that currency strength exerts influence on yields, consistent with existing studies highlighting the repercussions of exchange rate movements on financial markets (Trabelsi, Umar, Dogah, & Vo, 2023).

Our results confirm to earlier research emphasizing the impact of inflation, interest rates, and risk premium on bond yields and prices (Fathurahman, & Fitriati, 2013). The inverse relationship between exchange rates and conventional bond yields is consistent with literature highlighting the influence of currency movements on financial instruments (Billah, Balli, & Balli, 2022). The somewhat ambiguous connection between the stock market and conventional bond yields may necessitate further exploration, potentially influenced by specific market conditions (Balli, Ghassan, & Al Jeefri, 2021).

5.1 Theoretical Implications

Both conventional bonds and Sukuk are examples of fixed income instruments, and their theoretical postulations are founded on the various financial structures and principles that underlie each of these fixed income assets. Transactions that are backed by assets and profit-sharing procedures are both components of sukuk, which meet the requirements of Sharia compliance. The returns on Sukuk are dependent on the performance of the assets that are underpinning the investment, the observance of Islamic rules, and the economic conditions that are currently in place. In order to appeal to investors who are looking for both monetary rewards and adherence to Islamic finance rules, the theoretical framework for sukuk develops a connection between ethical investing and financial returns.

On the other hand, conventional bonds function within an interest-driven framework, which means that returns are directly linked to the interest rates that are currently in effect as well as the credit risk that is connected with them. The economic indicators, the actions of the central bank, and the general creditworthiness of the issuer are the factors that have the potential to have theoretical implications for conventional bonds. Bond yields are subject to an inverse influence from fluctuations in interest rates and economic conditions, which might potentially result in higher yields during times of economic instability.

5.2 Practical Implications

These findings must to be taken into consideration by policymakers when they are formulating economic plans. When it comes to traditional bonds, the implementation of policies to manage inflation, stabilize interest rates, and navigate currency volatility can all help to the development of a vibrant bond market. The implementation of regulations that place an emphasis on openness in risk assessment, as well as the management of inflation and currency rates, is absolutely necessary in the case of sukuk. Additionally, regulatory frameworks have to be modified in order to accommodate the unique characteristics that are associated with each various sort of bond.

Consideration must to be given by investors, whether they are operating on a national or international scale, to the possibility of expanding their investment portfolios in accordance with the acknowledged important elements. When it comes to conventional bonds, investors are required to focus their attention on economic indicators such as inflation, interest rates, and the success of the stock market. Sukuk investors, on the other hand, ought to give consideration to a variety of issues, including currency rates, risk premiums, and increases in inflation. In order to effectively manage risk exposure, diversification over a wide range of bond types becomes a very useful strategy. Additionally, it is essential for investors to maintain vigilance throughout the process of monitoring changes in major economic indicators. Optimal investment decision-making can be achieved by immediately reacting to changes in the aforementioned indicators.

When it comes to the dissemination of information concerning inflation, risk premium, interest rates, and currency rates, bond issuers, on the other hand, should strive to increase transparency. There is a correlation between the implementation of defined risk management techniques and the instillation of trust among investors, particularly among sukuk. Taking proactive measures to address the factors that influence yields or prices is a significant contributor to the success of bond issuances overall. Depending on the current state of the market, issuers are required to make adjustments to their operational plans. One of the most important aspects of conventional bonds is their capacity to adjust to changes in interest rates and the performance of the stock market. Issuers of sukuk ought to maintain a heightened awareness of fluctuations in risk premiums and exchange rates. The ability of bond issuers to efficiently traverse problems and capitalize on advantageous conditions is ensured by their ability to adapt to the dynamics of the market (Subhani, Farooq, Bhatti, & Khan, 2021).

The last thing that should be done is for regulators to build and maintain comprehensive regulatory frameworks that take into account the unique qualities that are associated with both conventional bonds and sukuk. In order to accomplish this, it is necessary to ensure transparency in reporting, to regulate risk management methods, and to carefully monitor the components that were discovered in the analysis (Khan et al. 2020). It is beneficial to the market to have a regulatory framework that is clearly defined because it encourages confidence among investors and promotes stability. Moreover, it is of the utmost importance to put in place protective measures

for investors, which should include precise disclosure requirements and techniques for risk mitigation. According to Duqi and Al-Tamimi (2019), this is of utmost importance in the context of sukuk, which implies that adherence to Islamic values and the open and honest distribution of risks need to be the primary focus.

According to the results of our investigation, it is advised that further investigation be conducted into the complex link that exists between the stock market (psx) and conventional bond yields. Validating the generalizability of these findings can be accomplished by undertaking comparative research across a variety of locations and economic contexts, as well as by investigating the possibility of variations taking place across a variety of market situations. It is possible that additional research into the impact of global economic events and geopolitical issues on conventional bonds and sukuk can provide a more thorough knowledge of the dynamics of these two types of bonds in a financial landscape that is continuously changing.

References

Ajello, A. (2016). Financial intermediation, investment dynamics, and business cycle fluctuations. *American Economic Review*, *106*(8), 2256-2303.

Alam, A., Ratnasari, R. T., Sawinda, W., & Al Hakim, M. H. (2023). How does Sukuk Investment Perform? A Literature Review. *International Journal of Professional Business Review*, *8*(7), e02580-e02580.

Alfalah, A., Stevenson, S., & D'Arcy, E. (2022). The Portfolio Advantages of Sukuk: Dynamic Correlations Between Bonds and Sukuk. *Journal of Asian Finance, Economics, and Business*, *9*(4).

Almaskati, N. (2022). Sukuk versus bonds: New evidence from the primary market. *Borsa Istanbul Review*, *22*(5), 10 33-1038.

Aman, A. U., Naim, A. M., & Isa, M. Y. (2019). What determines sukuk market development? New theoretical insights. *Global Review of Islamic Economics and Business*, *7*(1), 021-027.

Aman, A., Naim, A. M., Isa, M. Y., & Ali, S. E. A. (2021). Factors affecting sukuk market development: empirical evidence from sukuk issuing economies. *International Journal of Islamic and Middle Eastern Finance and Management*.

Aman, A., Sharif, S., & Arif, I. (2015). Comparison of islamic banks with conventional banks: Evidence from an emerging market. In *Asian Finance Association (AsianFA) 2015 Conference Paper, Aman, A., Sharif, S., & Arif, I.(2016). Comparison of Islamic Banks with Conventional Banks: Evidence from an Emerging*

Market. Journal of Management Sciences (Vol. 3, No. 1, pp. 13-22).

Ariff, M., Chazi, A., Safari, M., & Zarei, A. (2017). Significant difference in the yields of Sukuk bonds versus conventional bonds. *Journal of Emerging Market Finance*, *16*(2), 115-135.

Asmuni, N. H., & Tan, K. S. (2021). Exploring the Yield Spread Between Sukuk and Conventional Bonds in Malaysia. Journal of Emerging Market Finance, 20(2), 165–191.

Ayturk, Y., Asutay, M., & Aksak, E. (2017). What explains corporate sukuk primary market spreads? Research in International Business and Finance, 40, 141–149.

Balli, F., Ghassan, H., & Al Jeefri, E. H. (2021). Sukuk and bond spreads. Journal of Economics and Finance, 45(3), 529–543.

Balli, F., Ghassan, H., & Al Jeefri, E. H. (2021). Sukuk and bond spreads. *Journal of Economics and Finance*, *45*, 529-543.

Bhuiyan, R. A., Puspa, M., Saiti, B., & Ghani, G. M. (2020). Comparative analysis between global sukuk and bond indices: value-at-risk approach. *Journal of Islamic Accounting and Business Research*, *11*(6), 1245-1256.

Bhuiyan, R. A., Rahman, M. P., Saiti, B., & Ghani, G. B. M. (2019). Does the Malaysian Sovereign sukuk market offer portfolio diversification opportunities for global fixed-income investors? Evidence from wavelet coherence and multivariate-GARCH analyses. *The North American Journal of Economics and Finance*, *47*, 675-687.

Billah, M., Balli, F., & Balli, H. O. (2022). Spillovers on sectoral sukuk returns: evidence from country level analysis. *Applied Economics*, *54*(38), 4402-4432.

Billah, S. M., Nguyen, T. T. H., & Chowdhury, M. I. H. (2023). Sukuk and bond dynamics in relation to exchange rate. *International Journal of Islamic and Middle Eastern Finance and Management*, *16*(3), 621-646.

Billah, S. M., Nguyen, T. T. H., & Chowdhury, M. I. H. (2023). Sukuk and bond dynamics in relation to exchange rate. *International Journal of Islamic and Middle Eastern Finance and Management*, *16*(3), 621-646.

Boukhatem, J. (2022). How does financial risk affect sukuk market development? Empirical evidence from ARDL approach. *Heliyon*, *8*(5).

Campbell, J. Y. (1987). Stock returns and the term structure. *Journal of financial economics*, *18*(2), 373-399.

Campbell, J. Y., & Ammer, J. (1993). What moves the stock and bond markets? A variance decomposition for long-term asset returns. *The journal of finance*, *48*(1), 3-37.

Dobritsa, A. P., & Samadpour, M. (2016). The status of the genus Pseudoroseovarius Sun et al.

2015. *International journal of systematic and evolutionary microbiology*, *66*(12), 4960-4962.

Duqi, A., & Al-Tamimi, H. (2019). Factors affecting investors' decision regarding investment in Islamic Sukuk. *Qualitative Research in Financial Markets*, *11*(1), 60-72.

Fama, E. F. (1990). Stock returns, expected returns, and real activity. *The journal of finance*, *45*(4), 1089-1108.

Fama, E. F., & French, K. R. (1989). Business conditions and expected returns on stocks and bonds. *Journal of financial economics*, *25*(1), 23-49.

Fama, E. F., & Schwert, G. W. (1977). Asset returns and inflation. *Journal of financial economics*, *5*(2), 115-146.

Farooq, M. and Zaheer, S. (2015), "Are Islamic banks more resilient during financial panics?", Pacific Economic Review, Vol. 20 No. 1, pp. 101-124.

Fathurahman, H., & Fitriati, R. (2013). Comparative analysis of return on sukuk and conventional bonds. American Journal of Economics, 3(3), 159–163.

Fathurahman, H., & Fitriati, R. (2013). Comparative analysis of return on sukuk and conventional bonds. *American Journal of Economics*, *3*(3), 159-163.

Fisher, Irwin (1930). The theory of interest. New York Macmillan.

Gimeno, R. and Marques, J.M. (2012), "A market based approach to inflation expectations, risk premia and real interest rates", The Spanish Review of Financial Economics, Vol. 10 No. 1, pp. 18-29.

Godlewski, C. J., Turk-Ariss, R., & Weill, L. (2013). Sukuk vs. conventional bonds: A stock market perspective. *Journal of Comparative Economics*, *41*(3), 745-761.

Godlewski, C. J., Turk-Ariss, R., & Weill, L. (2013). Sukuk vs. conventional bonds: A stock market perspective. *Journal of Comparative Economics*, *41*(3), 745-761.

Hariz, F., Mezghani, T., & Abbes, M. B. (2023). Modeling dependence structure between green sukuk spread in Malaysia and the uncertainty factors before and during the COVID-19 pandemic. *Journal of Islamic Accounting and Business Research*.

Hassan, M. (2001), "Risk, return and volatility of faith-based investing: the case of DJIM", paper presented at the Fifth Harvard University Forum on Islamic Finance, October 6.

Hossain, M. S., Uddin, M. H., & Kabir, S. H. (2021). Sukuk and bond puzzle: An analysis with characteristics matched portfolios. Emerging Markets Finance and Trade, 57(13), 3792–3817.

Kandel, S., Ofer, A.R. and Sarig, O. (1996), "Real interest rates and inflation: an Ex-Ante empirical analysis", The Journal of Finance, Vol. 51 No. 1, pp. 205-225.

Khan, M. S., & Mirakhor, A. (1994). Monetary management in an Islamic economy. *Journal of King Abdulaziz University: Islamic Economics*, *6*(1).

Khan, S. U., Khan, I. U., Khan, I., Din, S. U., & Khan, A. U. (2020). Evaluating ṣukūk investment intentions in Pakistan from a social cognitive perspective. *ISRA International Journal of Islamic Finance*, *12*(3), 347-365.

Kim, S., & In, F. (2007). On the relationship between changes in stock prices and bond yields in the G7 countries: Wavelet analysis. *Journal of International Financial Markets, Institutions and Money*, *17*(2), 167-179.

Laeven, L., Levine, R., & Michalopoulos, S. (2015). Financial innovation and endogenous growth. *Journal of Financial Intermediation*, *24*(1), 1-24.

Lieser, K., & Groh, A. P. (2014). The determinants of international commercial real estate investment. *The Journal of Real Estate Finance and Economics*, *48*(4), 611-659.

Lusyana, D., & Sherif, M. (2017). Shariah-compliant investments and stock returns: evidence from the Indonesian stock market. *Journal of Islamic Accounting and Business Research*.

MacDonald, R. and Murphy, P.D. (1989), "Testing for the long run relationship between nominal interest rates and inflation using cointegration techniques", Applied Economics, Vol. 21 No. 4, pp. 439-447.

Mbarek, L., Marfatia, H. A., & Juko, S. (2019). Time-varying response of treasury yields to monetary policy shocks. Journal of Financial Regulation and Compliance.

Naifar, N., & Hammoudeh, S. (2016). Do global financial distress and uncertainties impact GCC and global sukuk return dynamics? Pacific-Basin Finance Journal, 39, 57–69.

Nihal, H. M. S., Hasan, S. S. U., & Majeed, I. (2023). Relative Efficiency of Bonds and Sukuk: A Case of Selected Islamic Countries. *iRASD Journal of Economics*, *5*(2), 217-229.

Pesaran, M.H., Shin, Y. and Smith, R.J. (2001), "Bounds testing approaches to the analysis of level relationships", Journal of Applied Econometrics, Vol. 16 No. 3, pp. 289-326.

Purniaji, M. A., & Sunarsih, S. (2022). The Effect of State Sukuk and Macroeconomics on The Trading Volume of Corporate Sukuk with Yield and Sukuk Rating as Control Variables. *Jurnal Manajemen dan Keuangan*, *11*(2), 229-243.

Rios, A. O., Rodríguez, G., & Arellano, M. A. (2019). Estimation of Peru's sovereign yield curve: the role of macroeconomic and latent factors. Journal of Economic Studies.

Saeed, M., Elnahass, M., Izzeldin, M., & Tsionas, M. (2021). Yield spread determinants of sukuk and conventional bonds. *Economic Modelling*, *105*, 105664.

Saeed, M., Elnahass, M., Izzeldin, M., & Tsionas, M. (2021). Yield spread determinants of sukuk and conventional bonds. *Economic Modelling*, *105*, 105664.

Safari, M., & Ariff, M. (2013). Do Debt Markets Price Ṣukūk and Conventional Bonds Differently?. *Journal of King Abdulaziz University: Islamic Economics*, *26*(2).

Safari, M., Ariff, M., & Mohamad, S. (2013). Do debt markets price ṣukuk and conventional bonds differently? Journal of King Abdulaziz University - Islamic Economics, 26(2), 113–149.

Schwert, G. W. (1990). Stock returns and real activity: A century of evidence. *The Journal of Finance*, *45*(4), 1237-1257.

Shaikh, E. A., & Wizarat, S. (2022). Empirical Investigation of Real Exchange Rate between Pak Rupee and US Dollar Employing Markov Switching-AR Model. *GMJACS*, *12*(2), 38-51.

Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The journal of finance*, *19*(3), 425-442.

Sherif, M. (2016). Ethical Dow Jones Indexes and Investment Performance: International Evidence Investment Management and Financial Innovations 13(2) pp.88-106.

Sherif, M., & Hussnain, S. (2017). Family Takaful in developing countries: the case of Middle East and North Africa (MENA). *International Journal of Islamic and Middle Eastern Finance and Management*.

Shiller, R. J., & Beltratti, A. E. (1992). Stock prices and bond yields: Can their comovements be explained in terms of present value models?. *Journal of monetary economics*, *30*(1), 25-46.

Steiner, M., & Heinke, V. G. (2001). Event study concerning international bond price effects of credit rating actions. *International Journal of Finance & Economics*, *6*(2), 139-157.

Subhani, B. H., Farooq, U., Bhatti, M. I., & Khan, M. A. (2021). Economic Policy Uncertainty, National Culture, and Corporate Debt Financing. *Sustainability*, *13*(20), 11179.

Trabelsi, N., Umar, Z., Dogah, K. E., & Vo, X. V. (2023). Are investment grade Sukuks decoupled from the conventional yield curve?. *International Review of Financial Analysis*, 102981.

Uddin, M. H., Kabir, S. H., Kabir Hassan, M., Hossain, M. S., & Liu, J. (2022). Why do sukuks (Islamic bonds) need a different pricing model?. *International Journal of Finance & Economics*, *27*(2), 2210-2234.

Williams, J. B. (1938). The theory of investment value (Harvard University Press, Cambridge, MA). www.icmagroup.org/Regulatory-Policy-and-Market-Practice/Secondary-Markets/bond-market-size/#:~:text=As%20of%20August%202020%2C%20ICMA,tn%20corporate%20bonds%20(32%2).