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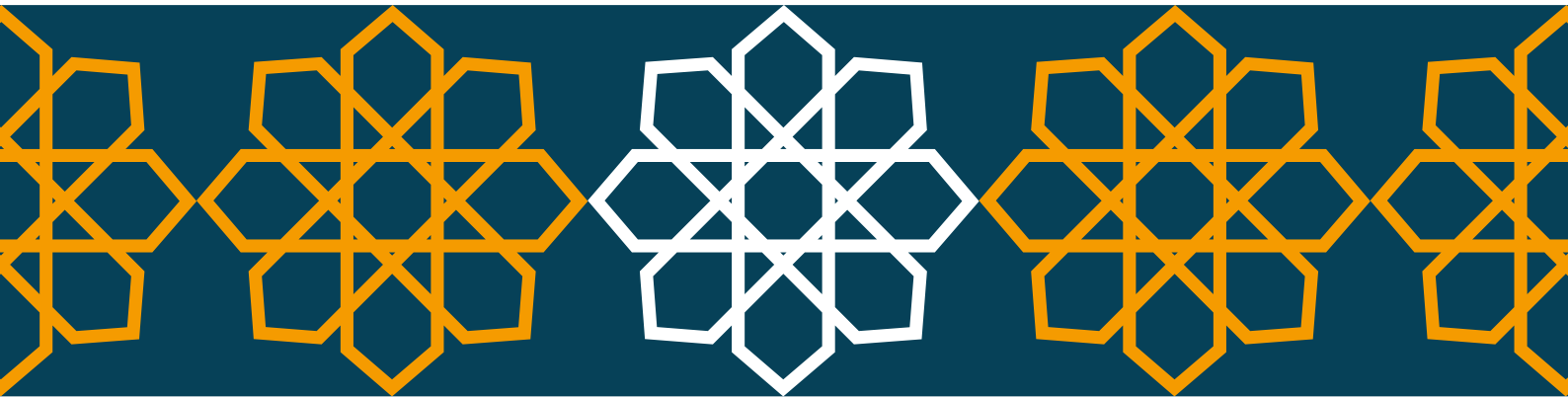# International Journal of Islamic Economics and Finance Studies

ULUSLARARASI İSLAM EKONOMİSİ VE FİNANSI ARAŞTIRMALARI DERGİSİ

IJISEF

International Journal
of Islamic Economics
and Finance Studies

INTERNATIONAL JOURNAL OF ISLAMIC ECONOMICS AND FINANCE STUDIES

Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi

Cilt/Volume: 11 | Sayı/Issue: 1 | Yıl/Year: 2025 |
e-ISSN: 2149-8407

Açık Erişim Politikası/Open Access Policy

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Period
International Journal of Islamic Economics and Finance Studies is a peer-reviewed academic journal published tiwice a year (March-September).

Publish Language
Turkish, English

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Abstract

The harsh, strict, solid and comprehensive impact of the economic and financial sanctions and bans on the Islamic Republic of Iran directs this country to various resources outside the international markets dominated by the United States. Conversely, the gold and oil markets are the two most important markets. It is a known fact that the citizens of the Islamic Republic of Iran have a positive cultural attitude towards gold. They can easily invest in gold, gold-related materials and jewellery. Moreover, gold is an important medium of exchange in international and regional economic and financial transactions. On the other hand, the country has abundant oil resources. Therefore, countries wishing to do business with the Islamic Republic of Iran should be aware of these facts. Depending on the acceptance of oil and gold in the Islamic Republic of Iran, this research aims to analyse the relationships between gold and oil returns and the main macroeconomic variables of the Islamic Republic of Iran. A Mixed-Data Sampling (MIDAS) regression methodology is used to realise the analysis. This analysis shows that gold and Brent oil returns methodologically affect Iran's economy in terms of unemployment rate, inflation rate and GDP growth. In order to achieve these results, a mixed data sampling (MIDAS) regression methodology was used, which mainly focuses on eliminating lag and frequency differences between variables in time series analysis. The results shed light on the fact that the economy of the Islamic Republic of Iran is vulnerable to gold and oil prices. Even small changes in the global gold and oil markets can cause significant events in the international, macro and micro conditions of the Islamic Republic of Iran.

Keywords: Islamic Republic of Iran, Brent Oil, Gold, Midas Regression, Financial Returns.

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Öz

İran İslam Cumhuriyeti'ne yönelik ekonomik ve mali yaptırım ve yasakların sert, katı ve kapsamlı etkisi, bu ülkeyi ABD'nin hakim olduğu uluslararası piyasaların dışında çeşitli kaynaklara yönlendirmektedir. Buna karşılık altın ve petrol piyasaları en önemli iki piyasadır. İran İslam Cumhuriyeti vatandaşlarının altına karşı olumlu bir kültürel tutuma sahip olduğu bilinen bir gerçektir. Altına, altınla ilgili malzemelere ve mücevherata kolaylıkla yatırım yapabilmektedirler. Ayrıca altın, uluslararası ve bölgesel ekonomik ve finansal işlemlerde önemli bir değişim aracıdır. Öte yandan, ülke bol miktarda petrol kaynağına sahiptir. Dolayısıyla İran İslam Cumhuriyeti ile iş yapmak isteyen ülkeler bu gerçeklerin farkında olmalıdır. Bu araştırma, İran İslam Cumhuriyeti'nde petrol ve altının kabul görmesine bağlı olarak, altın ve petrol getirileri ile İran İslam Cumhuriyeti'nin temel makroekonomik değişkenleri arasındaki ilişkileri analiz etmeyi amaçlamaktadır. Analizi gerçekleştirmek için Karma Veri Örneklemesi (MIDAS) regresyon metodolojisi kullanılmıştır. Bu analiz, altın ve Brent petrol getirilerinin metodolojik olarak İran ekonomisini işsizlik oranı, enflasyon oranı ve GSYİH büyümesi açısından etkilediğini göstermektedir. Bu sonuçlara ulaşmak için, zaman serisi analizinde temel olarak değişkenler arasındaki gecikme ve frekans farklılıklarını ortadan kaldırmaya odaklanan karma veri örnekleme (MIDAS) regresyon metodolojisi kullanılmıştır. Sonuçlar, İran İslam Cumhuriyeti ekonomisinin altın ve petrol fiyatlarına karşı kırılgan olduğu gerçeğine ışık tutmaktadır. Küresel altın ve petrol piyasalarındaki küçük değişiklikler bile İran İslam Cumhuriyeti'nin uluslararası, makro ve mikro koşullarında önemli olaylara neden olabilir.

Anahtar Kelimeler: İran İslam Cumhuriyeti, Brent Petrol, Altın, Midas Regresyonu, Finansal Getiriler.

Introduction

The revolution of the State of the Iran Islamic Republic (IIR) has a lot of layers if it is concentrated on the last 75 years such as the rise of the extremist Shia movement, the Islamic Revolution, the wars and conflicts in the Middle East Region (relationship with Iraq), high tensions with Europe and USA and problems in international oil politics. IIR stays often in the middle of high pressures under international sanctions and bans that have financial and economic results depending on, such as its nuclear policies, and its governance understanding.

Out of the external and internal politics, the sanctions and bans deeply impact the state of the IIR's economy. For example, Samadi et al. (2021: 35) state that negative events such as COVID-19 and financial and economic crises double the impacts of the sanctions and bans. Furthermore, they maintain that variables of the inefficiency of the policies adopted, macroeconomic indicators such as high inflation, high inflation expectations, rampant unemployment, deepening recession and increasing devaluation of the national currency are showing the economy's fragile state. In this viewpoint, IIR should find its method to overcome the negativities of the international financial context. Furthermore, Zeinedini et al. (2022:7) argue that there is no significant relationship between world gold prices and the Iran Stock Exchange index but, there is a negative and significant relationship between OPEC oil prices and the Tehran Stock Exchange index in the Covid-19 period. Out of a shortage or a huge financial-related catastrophe such as Covid 19, this research investigates the long-term relationship between returns of oil and gold and IIR's critical macroeconomic variables of GDP Growth, Unemployment rate and Inflation rate. It will serve to fill a research gap in how macroeconomic variables are impacted by returns of oil and commodities in a sanctioned and banned country between the years 1991 and 2023.

Yalçınkaya and Tuğlu (2021) summarised how the IIR reaches the international financial markets to finance its economy and the most favourable method is gold payment to oil trades under international financial sanctions with China, India and Turkiye, therefore attitudes of the international investors (returns) toward oil and gold are important in the absence of a specific payment system such as SWIFT (Society for Worldwide Interbank Financial Telecommunication). In their analysis, Yıldız (2020) and Küpeli (2016) affirm the existence of an economic bottleneck even after the sanctions of bans related to nuclear program activities. According to Carswell's (1981:260) analysis, the history of sanctions and bans in IIR is older than its current situation and has different identities in comparison with sanctions and bans of China, Cuba and Vietnam. Nevertheless, the IIR is not the only country that suffers from the hard sanctions and bans of the United States, there were 60 sanctions on 35 countries at the beginning of this millennium and this situation opened its doors to a new gold market (Taskinsoy, 2019: 22). Despite these hard conditions, IIR continues to take its place in international markets with its partners with fluctuations. Table 1 shows the economic relationships of the IIR between the years of 2018, 2019 (first six months) and 2019 (second six months) and the great

majority of these international trades were originally developed around the strategic commodities, of oil and gold.

Table 1. IIR's trade volumes with countries

Countries	2018 Million US	2019 Million US	2019 Million US	Change (%)
EU 28	21,470	4,280	4,602	-80
China	35,100	23,200	23,202	-34
India	17,570	7,300	7,308	-58
Iraq	9,550	12,000	12,000	26
Turkey	9,320	5,590	5,590	-40
S. Korea	6,4	2,60	2,60	-60
Japan	4,140	1,180	1,180	-72
Afghanistan	2,530	1,950	2,330	-23
Others	31,720	14,020	27,720	-56
Total	137,800	72,100	86,530	-48

Source: IRAM, Center for Iranian Studies in Ankara, 2020.

Moreover, the main impacts of US sanctions and results of these developments can be in the following fields such as i) Economic, social, cultural and political development domains, ii) Macroeconomic fields such as GDP, inflation, unemployment, industrial production and investment, poverty and immigration, iii) The negative sentiments in oil exports, stock exchange markets and financial markets, iv) Extension of sanctions in non-oil sectors such as iron, steel, aluminium and copper (IRAM, Center for Iranian Studies in Ankara, 2020). The country has suffered from these kinds of unbalanced sanctions for almost 50 years.

The IIR suffers from these high-degree sanctions, therefore the state had no option the regulate its economy soundly and comprehensively. Finding the correct strategy to form the correct financial management portfolios is another important problem for Iranian investors under these regulations. Oil for food and life is the only strategy for this state. And the importance of oil and selling oil is only one option in the short term and middle term to economize the nation (Shirvani and Volchenkov, 2022) Under harsh sanctions of the US and sometimes international order, the markets of IIR are so far from US Dolar and its calming impacts for countries, for these reasons, the country realizes oil and gold-based financial and economic transactions.

To be a part of the international financial system, to ensure financial interdependence with other countries and to integrate regional and continental economic and financial associations are essential goals for a state. Especially, an efficient and effective state should complete all of these steps to draw an economic perspective in terms of high-tech products and services, sustainability and energy policies.

In light of the arguments above, the research gap is formed around the questions of whether or not IIR's two main and general commodities' returns (oil and gold) have impacts on the macroeconomic variables. While realizing an analysis on this question, a Mixed-Data Sampling (MIDAS) analysis will be useful to work on the

problem of the frequency of the macroeconomic variables in the light of the arguments of Andreu et al. (2013) regarding the usefulness of daily data in MIDAS analysis of Macroeconomic Models. There will be a literature review and some statistics in the second section of this research, a presentation of economic variables and methodology will be in the third part, discussion and conclusion will be in the last part.

1. Literature Review

The economic situation of IIR has been subjected to a lot of research for many years because of its idiosyncratic character in terms of sanctions and bans in many scientific papers. In particular, gold and oil-depended analyses and detailed impacts of sanctions are subjected to specific statistical and econometric models. And they have taken great attention. For example, Zamani et al. (2022) underline that sanctions have a low and positive impact on the exchange rate with a Markov switching analysis, Mashayekhi et al. (2013) show the impacts of world gold prices on the exchange rates of IIR. Zeinedini et al. (2022) argue a negative and significant relationship between OPEC oil prices and the Tehran Stock Exchange index. There is no significant relationship between the world gold price and the Tehran Stock Exchange index with a quantile regression. Samadi et al. (2021) maintain that oil prices had a low co-movement with the stock exchange, exchange rate and gold markets in IIR markets and Covid has affected these relationships. Fattahi and Moghadam (2023) state that international interdependence and integration are very important for the Iranian financial markets. US sanctions mainly affect these relationships. In the long run, the interdependence and integration of financial markets increase. The highest impact on the interdependence of financial markets in the short run. And medium run is related to the exchange rate and gold price. Movahedizadeh et al. (2014) show that there is a positive correlation between stock returns and oil prices and gold prices between the years of 2006 and 2012 in IIR. Total oil supplied and consumer price index have a negative relationship with the stock index. While gold price and consumer price index have a short-run relationship with the TSE index at a 10% significance level this amount for the oil price is significant at 5% and there is no significant short-run relationship between supplied oil and Tehran stock returns. Shakeri et al. (2023) confirm a mutualism between cryptocurrency volatility and gold and oil prices. Volatility in oil and gas prices has a positive effect on cryptocurrency volatility in IIR. Sedigh et al. (2022) reveal the relationships between the stock market and the foreign exchange market, the global oil and gold markets are non-linear. This dependence is different during the boom and recession periods. In extreme conditions of the market such as crisis time, these dependencies are increasing between 2011 and 2019. Mahmoudinia (2021) frames a research model and affirms that the coefficients of monetary policy, exchange rate and currency crisis on the food prices in different quantiles are positive and significant between the periods of 2004 and 2008. Kasaeezadeh (2022) aims to seek answers to the questions of the selection and development of IIR's new criteria in oil contracts. In this context, the criteria of providing and attracting foreign investment, the balance between risk and reward, expected return, flexibility and safety withdrawal from the reservoir have been given higher priority in the

financial system depending on oil contracts. Roudari et al. (2023) show that institutional quality brings about an improvement in the stock market in the medium term; however, without institutional quality, there is only an improving short-term effect between 1984 and 2020. Monjazeb (2014) states that World oil prices, with a lag, had a significant positive impact, and gold prices had a significant negative impact on the stock return of banks for the period of 2008 to 2012.

On the other side, commodity prices gain importance in macroeconomic balances in the global context. Yin and Han (2015) state that the macroeconomic policies of China and the United States have determinative impacts on commodity prices. From this work, it can be concluded that commodity prices can be a pressure actor for the emerging world. Moreover, Jacks and Stuermer (2020) maintain that price fluctuations and shocks should be evaluated according to demand and supply analysis. The necessary policy answers to the developing and emerging world for these shocks cannot be effective sometimes (Siklos, 2021) as in the example of Knittel and Pindyck (2016).

The Iranian gold and oil trade and the prices of these commodities have great importance in nourishing this country's economy under the hard and comprehensive conditions that are raised by sanctions and bans in Figure 1 (only for the year 2020, the process is older than this timetable). According to Figure 1, the sanctions are aimed at hitting the most important sectors and industries of IIR such as Energy, Aviation, Metal and Finance. Other sanctions can be examined under the groups of intelligence, military and political relationships.

Figure 1. IIR Sanctions of USA
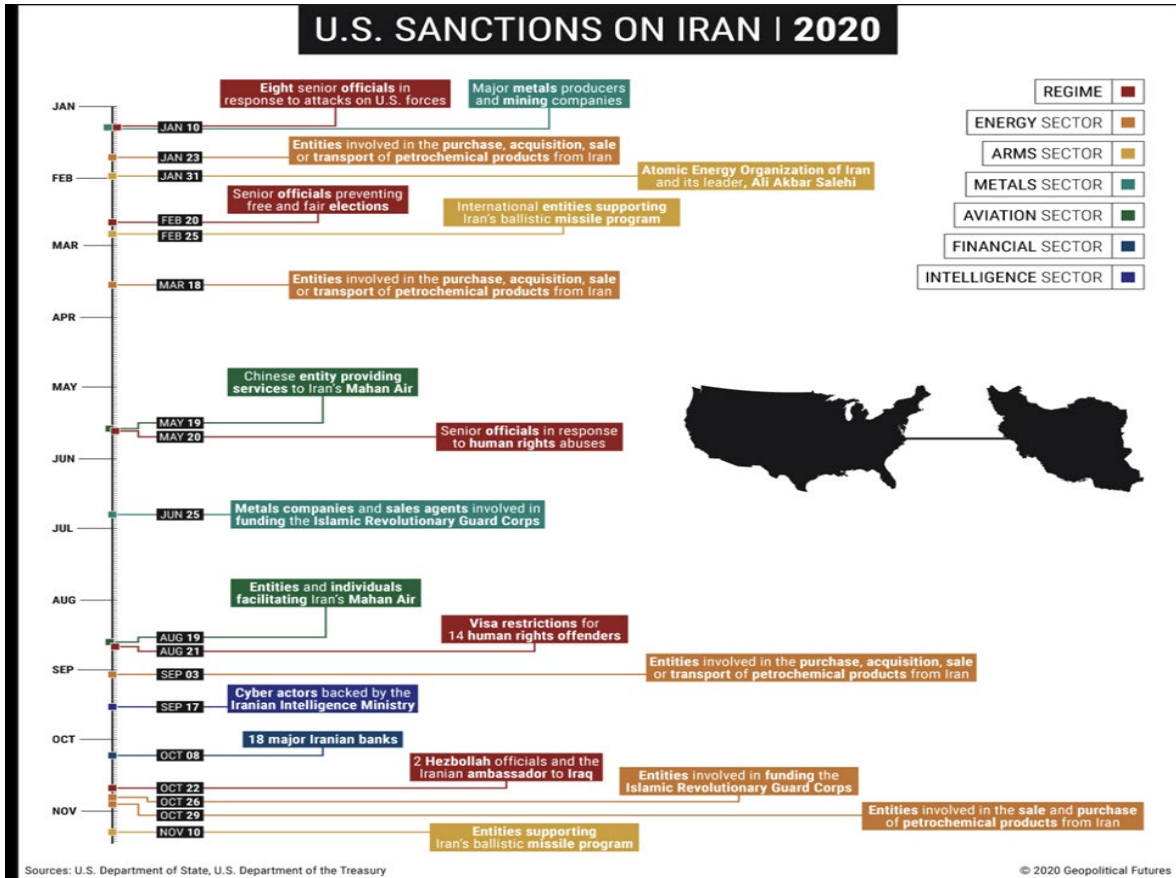
Source: Geopolitical Futures, 2020, https://geopoliticalfutures.com/us-sanctions-on-iran-in-2020/, 26.12.2023.

2. Methodology

To create an understanding of Iran Islamic Rebuplic's current situation in terms of economics and financial relationships, a MIDAS Regression is utilized. The frequency of variables, timespans and resources of the data are given in Table 3. As it concentrates on the reality of oil and gold dependence of the IIR, it can hypothesized that these two variables should have a relationship with the main macroeconomic variables.

Table 3. Information on Dataset

Variable	Variable Explanation	Frequency	Data start	Data finish	Resource of Data
Gold Price	Gold price in the world market	Daily	01.01.1991	31.12.2022	investing.com
Brent Oil Price	Brent Oil price in the world market	Daily	01.01.1991	31.12.2022	investing.com
Iran Islamic Republic's GDP Growth	GDP Value of Iran Islamic Republic	Yearly	1991	2022	Worldbank.com
Iran Islamic Republic's Inflation rate	GDP Value of Iran Islamic Republic	Yearly	1991	2022	Worldbank.com
Iran Islamic Republic's unemployment rate	GDP Value of Iran Islamic Republic	Yearly	1991	2022	Worldbank.com

To reach return values, the following statistics are utilized on both the Gold and Brent oil prices,

$R_s = [(P_{i,t}) − (P_{i,t-1})] / (P_{i,t-1})$

Where,

R_s = Return of World Gold and Brent Prices,

P = Price of the World Gold and Brent Prices,

i = Variable (Gold or Brent),

t= Time.

The results of the Phillips Perron (PP) and Augmented Dickey-Fuller(ADF) unit root tests are given in Table 4. Unit root tests are necessary to yield correct analysis results from the time series. They are a requirement and rule of thumb for MIDAS regression. T the correlation between dependent variables is given in Table 5. According to the results, there are no problems regarding multicollinearity because of the relatively low correlation values (r = 0.70)

Table 4. PP and ADF unit root test results.

Variable	ADF			PP		
	t statistic	P value	%1 Critical Value	t statistic	P value	%1 Critical Value
Gold Return	-90.673	0.000	-3.430	-90.702	0.000	-3.430
Brent Oil Return	-92.327	0.000	-3.430	-92.327	0.000	-3.430
Iran Islamic Republic's GDP Growth	-5.295	0.000	-3.661	-5.302	0.000	-3.661
Iran Islamic Republic's GDP Growth [1]	-6.590	0.000	-3.679	-15.281	0.000	-3.670
Iran Islamic Republic's Inflation rate	-2.766	0.074	-3.661	-2.778	0.073	-3.661
Iran Islamic Republic's Inflation rate [1]	-7.292	0.000	-3.670	-7.292	0.000	3.670
Iran Islamic Republic's unemployment rate	-3.222	0.028	-3.661	-2.286	0.1823	3.661
Iran Islamic Republic's unemployment rate [1]	-4.748	0.006	-3.670	-7.755	0.000	-3.67017

Table 5. Correlation Relationships between variables.

	Growth	Inflation	Unemployment
Growth	1.00		
Inflation	-0.12	1.00	
Unemployment	0.13	-0.36	1.00

Today, frequencies of data have great importance in utilising specific analysis. Investors focus on yearly profits, monthly profits and daily profits since the forms and designs of the financial markets. Besides these, there are different opportunities to make profits benefiting from the advantage of high frequency such as per hour, per minute and even per second. On the theory side, the arrangement and analysis of data because of frequency differences is a real problem. To solve this frequency problem MIDAS (Mixed-Data Sampling) type regression equation was developed.

In the traditional type of time series, both the dependent and independent variables share the same frequency. This is a must. To resolve the frequency problems, alignment methods are utilized on the time series (Armesto et al., 2010; Guliyev, 2018). According to Ghysels's (2004) presentation, the frequency of the dependent variable can be less than the independent variable. According to the features of the data in Table 3, the MIDAS approach is an important method to measure the relationship between, GDP Growth, Inflation, Unemployment and Brent and Oil returns with the following mathematical formulation.

$$y_t = \beta_0 + \beta_1 B\left(L^{\frac{1}{m}}; \theta\right) x_t^{(m)} + \epsilon_t^{(m)} \ldots \ldots$$

<div align="right">**Equation.1**</div>

for **t = 1,…,T,**

where,

y_t is a lower frequency Variable,

$x_t^{(m)}$ is the high-frequency variable,

$\beta_1 B(L^{\frac{1}{m}}; \theta) x_t^{(m)}$ **=** is a lag operator,

$\varepsilon_t^{(m)} = error\ term.$

To overcome the multicollinearity problem in the distributed lag, the Alman lag polynomial is an often-used technique with the following mathematical formulation (Almon, 1965);

$B(k; \theta) = \sum_{i=0}^{p} \theta_i k^i \ldots \ldots \ldots \ldots$ p signifies the degree of the polynomial, and it's important to note that $p < k$. In this analysis, this methodology is utilized for its flexibility and accuracy.

<div align="right">**Equation.2**</div>

3. Empirical Findings

The relationship between GDP Growth and Brent Oil, Inflation and Brent Oil and Unemployment and Brent Oil according to MIDAS regression can be presented in Table 5. The first section of the findings shows the relationships between time series which have different frequencies (term structures). The utilization of the Midas regression and representations of findings are designed according to (Khan and Raza, 2023).

Table 6. GDP Growth, Inflation Rate, Unemployment Rate and Brent Oil Returns

Dependent Variable (GDP Growth) – Independent Variable (Brent Oil Returns[1])		Dependent Variable (Inflation Rate) - Independent Variable (Brent Oil Returns[1])		Dependent Variable (Unemployment Rate) - Independent Variable (Brent Oil Returns [1])	
PDL01	22.484*	PDL01	168.298	PDL01	1.230
PDL02	-6.879	PDL02	-208.473	PDL02	-1.518
PDL03	0.820	PDL03	53.616*	PDL03	0.194
Lag 00	16.426	Lag 00	13.441	Lag 00	-0.093
Lag 01	12.012	Lag 01	-34.183	Lag 01	-1.028
Lag 02	9.240	Lag 02	25.424	Lag 02	-1.575

Lag 03	8.111			Lag 03	-1.734
Lag 04	8.625			Lag 04	-1.504
Lag 05	10.781			Lag 05	-0.886
				Lag 06	0.120

*=0.10, **=0.05, ***=0.01 significance level

According to the main results in Table 5, there are relationships between GDP Growth and Brent Oil Returns with a significance of 0.1 and PDL value of 22.484 and Inflation Rate and Brent oil returns with a significance of 0.1 and PDL value of 53.616. These values suggest that the relationship between GDP Growth and Brent Oil Returns and the Inflation Rate and Brent Oil Returns are positive and significant.

Additionally, the lagged Brent Oil returns coefficients remain statistically significant up to lag 7 for GDP Growth, up to lag 3 for the Inflation Rate and up to lag 7 for the Unemployment Rate, the lag dimension shows the duration of the relationships. According to the lag structure, the relationships continue for 7 years for GDP Growth, 3 years for the Inflation rate and 7 years for the Unemployment rate.

On the other side, the relationships between Gold Returns and GDP Growth, Inflation rate and Unemployment rate can be observed in Table 6.

Table 7. GDP Growth, Inflation Rate, Unemployment Rate and Gold Returns.

Dependent Variable (GDP Growth) – Independent Variable (Gold Return)		Dependent Variable (Inflation Rate) - Independent Variable (Gold Return)		Dependent Variable (Unemployment Rate) - Independent Variable (Gold Return)	
PDL01	-282.090	PDL01	893.169	PDL01	74.649
PDL02	262.207**	PDL02	-575.525**	PDL02	-38.329
PDL03	-48.198**	PDL03	76.997**	PDL03	4.952
Lag 00	-68.081	Lag 00	394.641	Lag 00	41.273
Lag 01	49.530	Lag 01	50.108	Lag 01	17.802
Lag 02	70.746	Lag 02	-140.430	Lag 02	4.238
Lag 03	-4.435	Lag 03	-176.974	Lag 03	0.579
Lag 04	-176.013	Lag 04	-59.523	Lag 04	6.826
		Lag 05	211.922	Lag 05	22.979
		Lag 06	637.362		

According to the main results in Table 6, there are relationships between GDP Growth and Gold returns with a significance of 0.05 for PDL values of 262.207 and -48.198 and Inflation Rate and Gold returns with a significance of 0.05 and PDL values of -575.525 and 76.997. These values suggest that the relationship between GDP Growth and Gold Returns and Inflation Rate and Gold Returns are positive negative and significant. This means that on the negative side of the Gold return and the positive side of the Gold return, the relationship occurs.

Additionally, the lagged Gold returns coefficients remain statistically significant up to lag 5 for GDP Growth, up to lag 7 for the Inflation Rate and up to lag 6 for the Unemployment Rate the results demonstrate that the lag structure, the relationships continue for 5 years for GDP Growth, 7 years for the Inflation rate and 6 years for the Unemployment rate.

Conclusion

According to the literature, commodities such as Brent oil and gold prices are problematic for countries. In parallel with these words, Labys and Maizels (1993) examine their situation in a macroeconomic context by stating their efficient and effective roles in money supply, interest rates and exchange rates for the developed world. La Torre et al. (2019) underline the importance of commodity price booms for a developing world country, Ecuador. For their analysis, as commodity prices collapsed, the augmenting countries were impacted negatively regarding fiscal policies and external balances such as payment balances. The shocks in the financial structures of the global oil prices show their impacts in the form of undesired comovements of commodities such as Gold in China (Chen, 2015). According to the analysis of Joets et al. (2017), agricultural and industrial markets are highly sensitive to commodity price variability and the level of macroeconomic uncertainty. Li (2017) confirms these relationships for China by emphasizing the place and size of economic growth, money supply and inflation. For Cespedes and Velasco (2012) commodity price shocks have a significant impact on output and investment dynamics and macroeconomic performances. Caporale et al. (2016) point out that macro-dimensional news can have direct impacts on strategic commodities such as Gold and Silver. Again, it should be an unforgettable reality that oil and gold prices always can cause a global crisis (Bialkowski et al., 2015; Shafiee and Topal, 2010). Larosei and Mally (2016) define commodities as a strategic element in the hands of developing countries on both sides of supply and demand. Therefore, they can be easily utilized for political purposes.

Another important paragraph should be added to international sanctions and bans. Because there are a lot of conflicts between countries in the world. Similar consideration can be thought for Russia after it conflicts with Ukraine (Hausman et al, 2024; Fedoseeva and Herrmann, 2019; Korhonen et al., 2018). On the other side, if it is realized a detailed analysis of international sanctions and bans in the 1950-2016 period, it can be seen their negativies on international trade. (Felbermayr et al, 2020). Tostensen and Bull (2002) and Gordon (2011) focus on the design of sanctions for the sake of international, regional and national development. In parallel with this idea, emerging technology has diversified sanctions measures from traditional trade restrictions to financial restrictions, travel bans, and contract cancellation measures (Hufbauer and Jung, 2021).

As it stated in the literature review, the Iran Islamic Republic lives in hard times under the harsh impacts of sanctions and bans. For this reason, its main economic conditions are formed around gold and oil. On the other side, returns are important

determinants of investors' and corporal investors' sentimental or rational behaviours. In Table 2, all of the variables are focused on the prices, but it is essential to realize an analysis in terms of the returns.

According to the results, there are relationships between gold, Brent oil and the main macroeconomic variables of Iran Islamic Republic. Without accessing international markets dominated by the United States and sanctioning countries, the Iran Islamic Republic draws an economic framework sourced from gold and oil. Therefore, the economy of the Iran Islamic Republic widely depends on world oil and gold markets and these relationships are also confirmed by Mansouri Danesvar et al., (2024); Farhadi et al, (2024) and Chavari et al, (2024), even the financial and economic impacts of these commodities can be observed for region countries such as Turkey (Pata et al, 2024). On the other side, the economy and management mechanisms behind these commodities should be evaluated so well by authorities in Iran Islamic Republic or the International dimension. The punishments against a state should be a problem for people.

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Islamic Finance Instruments and Systematic Risks: A Call for Financial Framework Reform

İslami Finans Araçları ve Sistematik Riskler: Finansal Çerçeve Reformu için Bir Çağrı

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Abstract

This manuscript examines the contemporary practices in Islamic finance and the associated systematic risks. It critiques the current instruments of Islamic finance and the conventional financial framework within which Islamic banks function, highlighting their suboptimal nature. The discussion extends to the challenges of tenor and currency mismatches and their influence on systematic risk, as observed in the deposit banking model concerning asset-liability management. The study advocates for a direct connection between resource mobilization and lending activities, aiming to counteract the trend of Islamic finance converging with conventional finance and to prevent the recurrent financial crises attributed to the disparities between resource mobilization and bank lending. The arguments rest on the premise that the profit-loss sharing principle in Islamic finance is designed not to absolve borrowers of their obligations. Rather, it ensures that investors, as opposed to the general public, share in both the profits and the risks. Furthermore, the manuscript suggests the potential development of Shari'ah compliant capital market alternatives within an appropriate financial framework, which is currently absent. Additionally, it addresses the Shari'ah compliance concerns associated with sukuk, specifically the issues surrounding the sale and lease-back-based (bai' al-'inah) and commodity murabaha (organized tavarruq) transactions. This paper anticipates several outcomes from the proposed measures. These include establishing a fair risk-sharing system aligned with Islamic finance principles, enhancing resistance to speculative bubbles by mitigating systemic risks in the current structure, and contributing economically to society through genuine financing models.

Öz

Bu makale, İslami finansın çağdaş uygulamalarını ve bunlarla ilişkili sistematik riskleri incelemektedir. İslami finansın mevcut araçlarını ve İslami bankaların faaliyet gösterdiği geleneksel finansal çerçeveyi eleştirerek, bunların optimal olmayan doğasını vurgulamaktadır. Tartışma, varlık-yükümlülük yönetimi ile ilgili olarak mevduat bankacılığı modelinde gözlemlenen vade ve döviz cinsi uyumsuzluklarının sistematik risk üzerindeki etkilerini de kapsamaktadır. Çalışma, kaynak mobilizasyonu ve kredi verme faaliyetleri arasında doğrudan bir bağlantı kurulmasını savunarak, İslami finansın geleneksel finansa benzeşme eğilimini engellemeyi ve kaynak mobilizasyonu ile banka kredilendirmesi arasındaki uyumsuzluklardan kaynaklanan finansal krizleri önleyici tedbir önerileri sunmaktadır. Sunulan çerçeve, İslami finanstaki kâr-zarar paylaşım ilkesinin kredi alanları yükümlülüklerinden kurtarmak için tasarlanmadığı öncülüne dayanmaktadır. Tam tersine, bu ilke, kâr ve riskin genel halk yerine yatırımcılar tarafından paylaşılmasını öngörmektedir. Ayrıca, makale, şu anda mevcut olmayan uygun bir finansal çerçeve içinde İslami finans prensiplerine uyumlu sermaye piyasası alternatiflerinin geliştirilmesini önermektedir. Ayrıca, sukuk ile ilgili İslami finans prensiplerine uyumluluk endişelerini, özellikle sat-geri kirala (bey'u'l-'îne) ve emtia murabahası (organize teverruk) işlemleri etrafındaki sorunları ele almaktadır. Bu çalışmadaki çağrının beklenen bazı sonuçları olacaktır. İslami finansın ilkelerine uyumlu adil bir risk paylaşım sistemi, mevcut yapıdaki sistemik risklerin azaltılıp spekülatif balonlara karşı güçlü mukavemet, gerçek finansman modelleri ile toplum yararına ekonomik katkı bunlardan bazılarıdır.

Introduction

Islam prescribes a nuanced set of guidelines for economic activities, akin to its moral directives for human behavior. It does not propose finance as either a malevolent force or a panacea for prosperity. Instead, Islamic doctrine suggests that finance can serve as either, depending on the implementation of checks and balances, or 'taqwa'—the formal term for ethical restraint in Islam (Gundogdu, 2019). For example, a household lacks a refrigerator. The absence of proper food storage leads to more waste than the cost of financing a refrigerator purchase. Islamic finance offers a solution through murabaha financing for such necessities, allowing banks to profit while contributing to societal welfare. However, after a murabaha sale, the resulting debt is not tradable in secondary markets. Banks are also restricted from accruing late payment fees as profit in the event of payment delays. While they may impose such charges to deter borrower exploitation and encourage timely repayment, these fees should not be recognized as profit on the banks' income statements (Gundogdu, 2016). The same issue arises for Islamic capital market instruments. Saad et al. (2016) delineate three methods for structuring sukuk: asset acquisition, bai' al-'inah transactions, and organized tawarruq in the form of commodity murabaha. According to Shari'ah rules, murabaha sukuk should not be traded on the secondary market due to the prohibition of trading in debt. However, the permissibility of bai' al-'inah and commodity murabaha (organized tawarruq) for structuring sukuk itself is a more formidable consideration than tradability.

Islamic prohibition of accruing late payment charges ensures that banks do not engage in reckless lending practices or inflate their markup rates by statistically incorporating default risks. Moreover, unlike justified by Abdul Ghafar, I. and Karmila Hanim, K. (2010), Islamic banks are barred from selling distressed debt to asset management firms to improve their financial statements. Abdul Ghafar, I. and Karmila Hanim, K. (2010) explores how risk management mechanisms, specifically debt selling, impact the value of Islamic banks. By maximizing the sale of murabaha on housing debt, Islamic banks can mitigate risk from interest rate fluctuations. They developed a theoretical model to optimize the banks' value through housing debt financing, aligning assets and liabilities. Their findings suggest that debt selling enhances earnings and addresses asset-liability mismatches. When market interest rates rise, base financing rates and mark-ups in Islamic banks increase, as these rates influence profits. Engaging in debt selling to reduce risk exposure can amplify earnings, overall bank value and manage asset-liability mismatch. Adopting such practice of conventional banks is a means to address flow of deposit collecting business model. Islamic financial principles are designed to prevent moral hazard for both lenders and borrowers, ensuring that finance serves the greater good. While finance is necessary for progress, Islamic principles guard against exploitation by either party. This balance is why Islam endorses ethical financing but strictly prohibits *riba, gharar*, and *maysir*.

In the context of CAPEX financing for assets such as machinery, Islamic finance advocates the use of the ijara contract. Ijara has served as a fundamental contract in

Islamic law for centuries. It has been adapted to offer financing and benefits through various fiqh solutions. Despite the existence of different forms of ijara, it is significant to note that the ijara contract has historically been utilized to provide financing (Yilmaz, 2023). Given the necessity for a longer tenor, this contract enables banks to continuously accrue profit for the duration of the borrower's asset utilization. Moreover, the bank's ownership of the asset renders ijara contracts favorable for the secondary market, thereby facilitating capital markets (Cakmak, 2024). However, this raises the issue of moral hazard. Banks amalgamate syndicated loans and deposits for such financing activities. Yet, in the event of a bank's insolvency, syndicated lenders and depositors may be precluded from accessing these ijara assets if they have been transacted in the secondary market (Gundogdu, 2019). This predicament suggests that developing equitable and Shari'ah-compliant capital markets is unattainable within the prevailing deposit banking business model.

Islamic banks can be considered within the same framework as conventional banks in the current structure. They are similar to conventional banks in terms of resource mobilization and lending. Consequently, Islamic banks may face the same systematic risks and financial stability issues. For instance, the factors that led to the 2008 crisis could have also caused significant shocks to Islamic banks. Global financing, the credit boom, the housing price bubble, shadow banking, securitization, expansive monetary policy, low interest rates, and leverage are some of the factors that impacted Islamic banks in their relationship with central banks. This is not only due to their relationship with central banks but also because they share the same systematic risks and financial stability concerns.

Islamic finance introduces two additional lending contracts: istisna' and salam. Istisna' is particularly suited for greenfield projects, such as establishing a production facility or infrastructure development, which entail extensive civil work necessitating cash payments to contractors upon achieving milestones. Clearly, such assets cannot be financed through murabaha or ijara, but rather through istisna' (Diallo and Gundogdu, 2021). It can be asserted that the istisna' contract method held significant promise for Islamic banks towards the end of the 20th century. Given that Rajhi Bank is a major Islamic bank in Saudi Arabia and continues its active banking services in many countries, the development of istisna' can be examined through the decisions of the Rajhi Bank Shari'ah Board. Numerous examples of this can be found in the Shari'ah Board's decisions. For instance, the istisna' contract was applied in a project to construct a building on land owned by a company, in an aircraft manufacturing contract, in the construction of a shopping center building, and in providing housing for university academics (Qarārāt al-Rājiḥī, 2010). However, over time, the resemblance of Islamic banks to conventional banking, both in terms of legislation and products, has begun to diminish the significance and applicability of some of the unique contracts of Islamic finance.

Similarly, in agricultural financing, beyond the provision of inputs, there are ancillary civil works required for land leveling and water supply systems, which also demand

cash payments to service providers. For these purposes, Islamic finance recommends the salam contract (Muhammad and Chong, 2007). The limited number of references to salam in the decisions of the Shari'ah Board of Rajhi Bank may suggest that Islamic banks have not extensively utilized this contract from the outset. However, it is noteworthy that this contract is mentioned, particularly in the decisions from the early period (Qarārāt al-Rājiḥī, 2010).

Regrettably, the industry has begun to increasingly rely on Service ijara contracts for immediate cash payments for civil works, rather than fostering the development of istisna' and salam practices. It should be noted that Service ijara is deemed an impermissible practice for financing civil works within the Islamic jurisprudence due to the prohibition of selling what one does not own (Diallo and Gundogdu, 2021). Under this product, an Islamic banking customer applies to an Islamic bank for financing a predetermined service from a supplier. The bank, upon accepting the financing request, purchases the predetermined service directly from the service provider and appoints the customer as an agent. The Islamic bank then provides the predetermined service at the agreed time in accordance with the customer's request. Ultimately, the customer pays the Islamic bank a predetermined fee for the service provided (Mohamed et al., 2024). Today, Service ijara has become a significant instrument for Islamic banks in many countries, including United Arab Emirates, Malaysia, Oman, Bahrain, Maldives, Bangladesh, Nigeria, and Tanzania (Mohamed et al., 2024). This product provides financing in numerous other areas such as health, travel, marriage, and religious pilgrimages like Hajj and Umrah ((Mohamed et al., 2024).

It is evident that Islamic finance encompasses essential contracts to support economic activities. Among these, the murabaha contract stands out as a dominant lending arrangement. Considering that Islamic finance mirrors the real economy, where approximately 90% of household and corporate activities involve short-term trade finance, murabaha serves as a crucial mechanism (Gundogdu, 2016). Additionally, contracts such as ijara, istisna', and salam address other financial needs (Watkins, J.S., 2020). Criticisms leveled against Islamic finance in relation to these contracts lack a solid basis. In reality, Islamic finance offers a robust framework with ample contracts to facilitate economic activities, obviating the need for creative solutions that could jeopardize the economy. Risk management practices in the field of Islamic banking, along with regulatory arrangements related to the deposit-collecting banking model, have led to a convergence with the conventional banking system.

All these traditional financial contracts impose debt obligations on borrowers. However, the financial system should strive for fairness. The question of whether profit-loss-sharing is relevant during the lending phase in Islamic finance warrants consideration. Those who benefit from financing facilities should also shoulder the associated responsibilities. What remains unfair is the enrichment of certain individuals through leveraging and bank bailouts when systemic risks arise within the current financial architecture. Rather than imposing the burden on the general public, it is more appropriate for those who have leveraged from and invested in

banks to bear the consequences in the event of bank failures. The main objective of this paper is to propose structural reforms that align Islamic finance practices with the fundamental principles of Shari'ah. These reforms aim to promote risk sharing, enhance social impact, and prevent systemic risks. In the subsequent section, the Islamic finance perspective on profit-loss-sharing is refined.

1. Existing Financial Framework

Within the existing financial framework, banks engage in lending, money creation, and resource mobilization to facilitate further lending and, consequently, expand the money supply (Banke and Yitayaw, 2022). As depicted in Graph 1, banks mobilize resources from depositors, other financial institutions, and capital markets. However, significant mismatches arise, particularly concerning currency and tenor, between Phase 1 (lending) and Phase 2 (resource mobilization). To address these mismatches, banks employ intricate risk management tools and mathematical formulas. Notably, the formula within the Critical Box draws inspiration from quantum physics—it is the Schrödinger equation. The formulas and structures used by banks to manage this critical box are even more intricate than quantum physics. The current financial structure relies on resource pooling. It is important to note that the mismatches between resource mobilization and lending can lead to vulnerabilities, financial instability, and unfair risk sharing. Reforming both stages is crucial for reducing risks and ensuring fairer risk sharing. Consequently, improving financial stability becomes possible.

Graph 1. Financial Framework
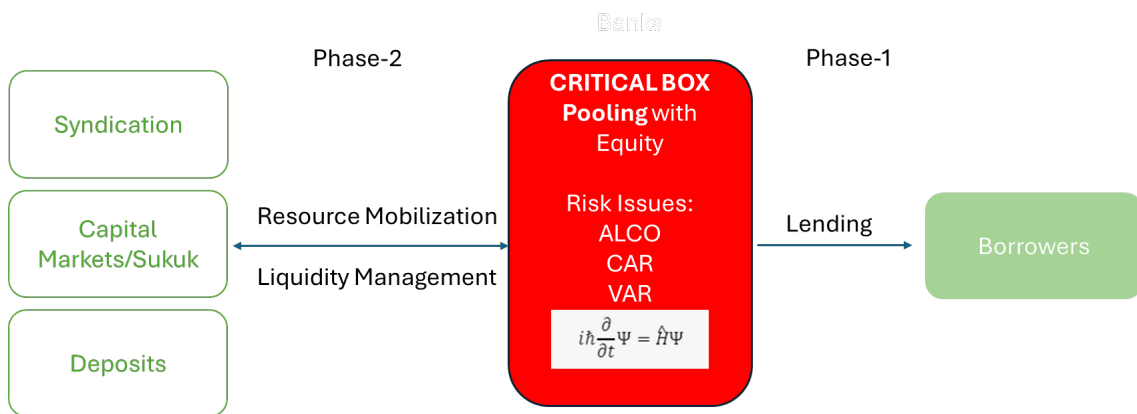
Source: The Authors

The incongruities between resource mobilization and lending, alongside deficiencies in asset and liability management, are emblematic of financial crises and contribute to persistent recurrence of financial crisis. This is attributable to the reliance on formulas and structures such as the Asset-Liability Committee (ALCO), Value-at-Risk (VaR), and Capital Adequacy Ratio (CAR), which banks employ for risk management. These mechanisms operate based on assumptions and historical data

that are susceptible to invalidation by unpredictable, high-impact 'black swan' events. According to Kayhan (2023), the global financial crisis of 2008 intensified the debate on Value at Risk (VaR) models, with widespread criticism regarding their inadequacy. However, with the introduction of new market risk standards by the Basel Committee in January 2016—initially planned for implementation in 2019, then postponed to early 2022, and subsequently to 2023—the VaR measurement model was replaced by the Expected Shortfall (ES) model. Despite these developments, Kayhan noted that VaR has significant limitations. Nevertheless, VaR continued to be used persistently (Kayhan, 2023). Traditionally, Islamic banks have engaged in a banking business model centered on deposit collection, thereby subjecting themselves to risks analogous to those faced by conventional banking institutions (Hassan and Mollah, 20018). It can be argued that there are two primary reasons for this phenomenon. The first reason is the transfer of management policies and managerial practices from conventional banking to Islamic banking. The second reason is the similar regulations and legislations to which both Islamic banking and conventional banks are subject (Gundogdu, 2019).

Islamic banks engage in resource mobilization similar to conventional banks. This practice emerged at the outset the establishment of Islamic banks, primarily due to the limited availability of Information and Communication Technology (ICT) during that period. As in conventional finance, lending and resource mobilization are not directly intertwined. Consequently, a complex interplay of activities occurs within this financial framework. To address the challenges posed by mismatches between Phase 1 (lending) and Phase 2 (resource mobilization), Islamic banks found it necessary to adopt resource mobilization and risk management practices akin to those of conventional banks. Over time, this convergence has led to the financialization of assets within the Islamic banking system.

In recent years, risk management practices have increasingly been incorporated into the regulatory framework of Islamic banking. For instance, the Central Bank of Bahrain's regulatory volume on Islamic banking includes a dedicated chapter on the credit risk associated with Islamic banking products. Similarly, in the United Arab Emirates, the Standardized Risk Management Requirements for Islamic Banks have been integrated into the legislation. Additionally, the Standard Re Liquidity Directive for Islamic Banks in the UAE outlines principles related to the liquidity management of Islamic banks. This standard, issued by the Central Bank, provides guidance on the Shari'ah-compliant management of liquidity risks, addressing both qualitative and quantitative requirements, as well as reporting obligations. While risks such as credit risk, market risk, and capital risk are discussed in detail, a significant section is devoted to the risk of Shari'ah non-compliance (CBUAE 2022). A similar situation exists in Kuwait. For Islamic banks in Kuwait, the instructions issued by the Central Bank are of considerable importance. The Central Bank has issued directives on various topics, including the risk system center, electronic payment funds, sustainable development, and sustainable finance, demonstrating its influence on Islamic banking comparable to that on conventional banking. The critical point here is that central banks exert as much influence on Islamic banking as they do on

conventional banking, directly applying the management practices and legislation of conventional banking to Islamic banks.[1]

The primary purpose of both bonds and sukuk is to finance projects, and they are securities that can be bought and sold. Both instruments can be utilized to manage cash flow and finance various objectives. However, there are theoretical differences between sukuk and bonds. The return on investment for sukuk is based on the income generated from the performance of the underlying asset, whereas the return on investment for bonds is fixed as interest and does not depend on any underlying asset. In sukuk, the investor receives a return on ownership rather than interest. Additionally, sukuk represent the sale of assets in theory, whereas bonds represent the sale of debt (Abalkhil, 2018). Many of the financial instruments currently presented as sukuk are, in fact, securitized bonds. Hence, a persistent shortage of assets to meet demand has prompted industry-wide discussions. It is because focus is not on genuine economic transactions but financialization of existing assets unlike Islamic finance promotes. The phrase 'Where are the assets? We do not have enough assets resonates throughout the Islamic finance sector. Lahsasna, Kabir Hassan, and Ahmad (2018) proposed forward lease sukuk as a highly viable and dynamic Shari'ah-compliant instrument for the Islamic capital markets. Forward lease sukuk aims to raise funds based on non-existent assets, whose subject matter does not yet exist at the time of issuance. They explore the key features of forward lease sukuk and highlights its essential role in project construction and manufacturing within the growing field of Islamic finance. Gundogdu (2019) posit that assets should be generated through istisna' contracts for infrastructure development and project finance by banks. Following asset creation, ijara-based sukuk should be introduced in capital markets. Banks should bear the risk associated with asset production to prevent adverse consequences in capital markets in the event of asset deficiencies. This proposal assigns a pivotal role to Islamic banks in underpinning capital markets and contributing to society by fulfilling a critical function of asset creation. Despite the proposed alternatives, several Islamic finance institutions have turned to non-compliant financial products, including:

- Bai' al-'inah based sukuk (sale and lease-back): Originally from the conventional banking system, this practice has spread from bank sukuk to company sukuk.
- Commodity murabaha syndications and sukuk: Initially associated with bank syndications/sukuk, this approach has extended to lending to companies and households, also often underpinning so-called Islamic hedging instruments.
- Bai' al-dayn: Involving debt trading, receivable discounting, and factoring.

Abalkhil (2018) stated that sukuk, as it is known today, was redefined as *mugarasa* bonds during the fourth session of the Islamic Fiqh Academy in 1988. In 1990, Malaysia issued sukuk, followed by Bahrain in 2001, and the Islamic Development Bank and Qatar issued millions of dollars' worth of sukuk in 2003 (Abalkhil, 2018). This development in the sukuk market extended to the fatwa dimension with the publication of the sukuk standard by AAOIFI in 2004. Before discussing the fatwa

dimension, it is important to note that sukuk plays a crucial role in liquidity management for Islamic financial institutions and banks. Sukuk can be viewed as a key instrument in the context of liquidity. Consequently, sukuk issuance has become a significant objective in Islamic banking. Sukuk provides an effective method for liquidity management; institutions with excess liquidity can purchase these instruments, and when liquidity decreases, sukuk can be sold in the secondary market (Abalkhil, 2018). [2]

Within the realm of Islamic finance, tensions have arisen among academicians and Shari'ah scholars. On one side, some scholars have embraced the maslahah approach as a means to foster industry growth. Mubarak and Osmani (2010), citing Dusuki and Abozaid, argue that attention should be paid to *Maqasid al-Shari'ah* in the creation of financial products. Otherwise, Islamic banks will not differ from conventional ones. Conversely, some academicians advocate for constructive criticism and emphasize the importance of exploring alternative perspectives. It is imperative to recognize that specific financial instruments have engendered considerable debate. Nonetheless, industry bodies responsible for setting industry standards have promulgated guidelines and some Shari'ah Boards have issued fatwas endorsing these instruments. Notwithstanding these developments, it is noteworthy that the entities formulating industry standards are constituted by members of the banking sector, and the remuneration of Shari'ah Board members is furnished by the banks themselves. These circumstances have precipitated deliberations within the Islamic Fiqh Academy. The Academy has unequivocally classified such cases as instances of Shari'ah circumvention and deceit (Gundogdu, 2019). Regrettably, market-driven dynamics have even allowed non-compliant practices from Phase-2 to infiltrate Phase-1. For instance:

- Commodity murabaha for household and corporate lending: Originally designed for inter-bank liquidity management, commodity murabaha has become a prevalent practice in household and corporate lending for Islamic banks. Contrary to its name, a commodity murabaha transaction is not a murabaha transaction but rather an impermissible organized tavarruq.
- Bai' al-'inah sukuk (sale and lease-back) for corporate lending: Despite its non-compliance with Islamic principles, bai' al-'inah sukuk has gained traction as a financing tool for companies.
- Qard al-hasan imitating conventional overdraft facilities: Islamic banks have increasingly adopted qard al-hasan to mimic conventional overdraft facilities.

The reliance on these practices reflects the industry's struggle to strike a balance between growth and adherence to Shari'ah principles. Unfortunately, this approach has delayed the development of genuinely Shari'ah-compliant alternatives (Gundogdu, 2018). Consequently, Islamic finance has become embedded in the conventional system, diverging from its original principles. Presently, the prevailing practice of Islamic finance perpetuates an inequitable economic and financial system. A minority enjoys the benefits, while the broader public bears the repercussions when risks escalate beyond manageable levels within the existing framework. The pooling of resources for lending remains a shared critical flaw in

both conventional and Islamic finance. To address the existing challenges, structural reforms are essential. These reforms should aim to realign Islamic finance with its fundamental principles and promote the broader public interest. In the following section, specific adjustments and proposed immediate actions are outlined to unlock the full potential of Islamic finance.

2. Novel Islamic Financial Architecture

While the issue of Central Bank intervention and the monetary system lies outside the scope of this paper, a more significant flaw warrants attention. The creation of money based on debt contracts is incompatible with Islamic principles. According to Islamic perspective, money should originate from the collective efforts of people—rewarding their productive work. As long as individuals can produce goods and services demanded by others, they, rather than central banks, should be creating money (Gundogdu, 2019). Consequently, in an Islamic economic and financial system, Central Banks should play no role with their as-is business model, while banks and organized exchanges are expected to serve as pivotal institutions for the prosperity of society.

In the present day, Information and Communication Technology (ICT) capabilities allow to design a business model that effectively addresses the requirements of Islamic finance. Rather than solely focusing on deposit collection, Islamic banks can gradually transition toward linking people's savings with lending opportunities through investment accounts. The ideal model would resemble crowdfunding, although this transition should occur incrementally. Banks can mobilize resources for lending opportunities via investment accounts, allowing individuals to choose from a list of lending options while sharing the associated risks. In this context, banks play a crucial role by providing due diligence, risk assessment, categorization of offers, and legal arrangements, including security packages and documentation. Furthermore, it is advisable to discontinue sukuk issuance for companies as an alternative to traditional lending contracts, given their frequent use for window dressing and other purposes (Gundogdu, 2019). Instead, sukuk should be exclusively issued for infrastructure projects and large-scale project finance.

Graph 2. Profit-Loss Sharing
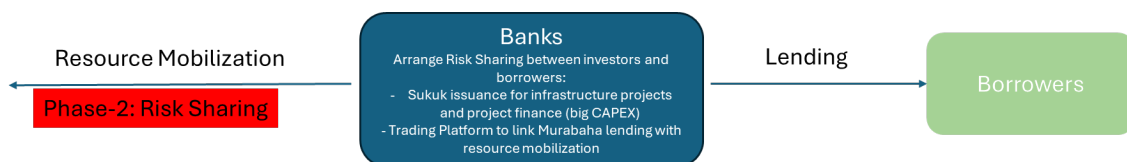
Source: The Authors

Graph 2 illustrates the critical connection between Phase 2 (resource mobilization) and Phase 1 (lending). By establishing this link, a profit-loss sharing mechanism can be ensured. Importantly, individuals who are not directly involved in these transactions would be shielded from liability for any erroneous investment decisions made by banks and investors. This alignment promotes transparency, accountability, and equitable risk distribution within the financial system.

Table 1. To-dos and Not-to-dos for Phase 1 and Phase 2

Phase 2	Phase 1
Not-to-dos	*Not-to-dos*
- Commodity murabaha syndication - Sukuk (Bai' al-'inah and commodity murabaha based) - Bai' al-dayn	- Commodity murabaha: Non-compliant - Bai' al-dayn - Sukuk - Musharaka - Mudaraba
To-dos	*To-dos*
- 2-Step Murabaha - Mudaraba - Musharaka - Sukuk (not based on bai' al-'inah and commodity murabaha)	- Murabaha - Ijara - Salam for agricultural finance - Istisna' for project finance and infrastructure development

Source: The Authors

Upon reviewing Table 1, it becomes evident that not only Shari'ah non-compliant products but also mudaraba, musharaka, and sukuk should be excluded from Phase 1 (lending to companies and households). These contracts primarily serve as resource mobilization mechanisms rather than lending contracts. To ensure alignment with Islamic principles, it is advisable to restrict the use of standard Islamic lending contracts for Phase 1, such as murabaha and ijara. The profit-loss sharing principle of Islamic finance is not intended to relieve borrowers of their responsibilities. Instead, it ensures that investors, rather than the general public, share both the profits and the risks. By appropriately linking resource mobilization and lending contracts (as outlined in the provided to-dos within Table 1), we can mitigate systematic risks for the industry and countries. To further elaborate on Table 1, Phase 2, i.e. sukuk based on commodity murabaha, bai' al-dayn and bai' al-'inah should not be employed in resource mobilization/liquidity management. Instead, the proper methods for Phase 2 are 2-step murabaha, mudaraba, musharaka and Shari'ah-compliant sukuk different from the ones above. These methods will contribute to fair risk sharing and play an effective role in mitigating systematic risks. Because they are based on actual Islamic financial contracts. Similarly, in Phase 1, in addition to the three methods mentioned above, mudaraba and musharaka are not appropriate. Instead, murabaha, ijara, salam and istisna' are proposed as methods of social welfare and actual financing. In fact, this can be interpreted as the purpose of Islamic banks when they first emerged. As a matter of fact, it is seen in some of the first Islamic banks' Shari'ah board decisions that such decisions were taken first. The improvement of the profit-loss sharing mechanism and the adoption of platforms such as crowdfunding can enable a direct link

between resource mobilization and lending. This could lead to a more shared and participatory financial ecosystem with fairer risk-sharing.

Indeed, the focus on murabaha holds merit, especially given that approximately 90% of business and lending activities are short-term trade-related. This alignment with real economic transactions underscores the practical relevance of murabaha within Islamic finance. While sukuk play a role, emphasizing murabaha as a cornerstone can enhance the system's effectiveness (Gundogdu, 2016).

To establish a seamless linkage between resource mobilization and lending, concerted efforts are necessary. The key lies in avoiding pooling and directly connecting these components. An organized exchange can play a pivotal role in facilitating resource mobilization through instruments like sukuk (for project finance), mudaraba, musharaka, and 2-Step murabaha (Gundogdu, 2016). By leveraging the existing capabilities of organized exchanges, we can effectively match resource mobilization contracts within Islamic finance to corresponding lending contracts, ensuring a more efficient and transparent system.

Conclusion

Islamic banks predominantly follow a deposit-collecting business model, primarily due to the limited capabilities of information and communication technologies during the outset of the establishment of Islamic banks. However, with the advancements in technology and the development of well-organized exchanges equipped with robust clearing house mechanisms, there is an opportunity for transformation. By shifting the business model and adhering to Shari'ah compliance, Islamic finance holds promise as a potential solution to address global dissatisfaction with the conventional finance industry.

In conclusion, the transformation of Islamic finance necessitates structural changes that align with its core principles. By linking resource mobilization and lending without pooling, a more transparent and equitable system can be created. The focus on murabaha, as a reflection of real economic transactions, holds promise. Additionally, leveraging organized exchanges to match resource mobilization contracts with lending contracts can enhance the industry's effectiveness. Ultimately, these steps can harness the potential of Islamic finance for the benefit of society at large. This evidence supports the assertion that central banks, with their current business model, have no place within an Islamic economic and financial framework. Indeed, central banks have imposed agendas that have led to the convergence of Islamic banking with conventional banking practices. Instead, organized exchanges and crowdfunding banks, serving as intermediaries, are poised to assume a pivotal role.

Notes

1 Although there are separate instructions sent by Central Banks to Islamic banks, it should be noted that they are still subject to the same legislation in some aspects and are part of this management system. However, in terms of Shari'ah governance, Islamic banks are subject to a separate department. This is the case with legislation such as Central Bank laws or risk management instructions in some GCC member countries, but this issue is beyond the scope of this paper and will be discussed in detail in a separate study.

2 It should be noted that only asset-backed sukuk are tradable in the secondary market.

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NMV Tabanlı TOPSIS Yöntemi ile İslam İşbirliği Teşkilatı Ülkelerinde İslami Bankaların Finansal Performans Analizi

Financial Performance Analysis of Islamic Banks in OIC Countries Using NMV-Based TOPSIS Method

Öz

Bu çalışma, İslam İşbirliği Teşkilatı'na (OIC- Organization of Islamic Cooperation) üye 13 ülkede faaliyet gösteren İslami bankacılık sektörlerinin finansal performansını analiz etmektedir. Çalışmada, bankacılık literatüründe yaygın olarak kullanılan göstergeler aracılığıyla İslami bankaların finansal performansı incelenmiştir. Analiz sürecinde, çok kriterli karar verme tekniklerinden yararlanılmıştır. Öncelikle, Normalized Maximum Values Method (NMV) yöntemi ile belirlenen 8 finansal göstergenin ağırlıkları hesaplanmış, ardından Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) yöntemi kullanılarak performans analizi gerçekleştirilmiştir. Elde edilen bulgular; sermaye yeterlilik oranının genellikle en önemli finansal performans göstergesi olduğunu ortaya koymuştur. Ayrıca, yıllara göre değişiklik göstermekle birlikte, Suudi Arabistan ve Irak'ın en yüksek finansal performansa sahip ülkeler olduğu tespit edilmiştir. Bu bulgular, İslami bankacılık sektörünün güçlü ve zayıf yönlerini daha derinlemesine analiz etmeye yönelik bir temel sunmaktadır. Özellikle sermaye yeterlilik oranının önemi, İslami bankaların risk yönetimi stratejilerinin yeniden değerlendirilmesine ve sermaye yapılarını daha verimli bir şekilde analiz etmelerine imkân tanımaktadır. Ülkeler bazında gerçekleştirilen performans analizi ise, finansal başarıdaki farklılıkları ortaya koyarak politika yapıcılara ve düzenleyici otoritelere ülkeler arası iyi uygulamaların paylaşılmasını teşvik edecek stratejik fırsatlar sunabilmektedir. Ayrıca, düşük performans sergileyen ülkelerde faaliyet gösteren İslami bankalar için hedefe yönelik iyileştirme politikalarının geliştirilmesine katkı sağlamanın yanı sıra, sektör genelinde sürdürülebilir büyüme hedeflerinin gerçekleştirilmesi adına rehberlik edebilecek bir kaynak niteliği taşımaktadır. Çalışmanın, İslami bankacılık sektörünün finansal istikrarını güçlendirmeye yönelik olarak hem sektörel uygulamalara hem de akademik literatüre katkı sağlaması amaçlanmaktadır.

Jel Sınıflandırması: G20, G21, G29
Anahtar Kelimeler: İslami Finans, İslami Bankacılık, Finansal Performans, İslam İşbirliği Teşkilatı, NMV ve TOPSIS Yöntemleri

Abstract

This study analyzes the financial performance of Islamic banking sectors operating in 13 member countries of the Organization of Islamic Cooperation (OIC). In this study, the financial performance of Islamic banks was examined through indicators commonly used in the banking literature. In the analysis process, multi-criteria decision-making techniques were used. First, the weights of 8 financial indicators determined by the NMV method were calculated, and then performance analysis was performed using the TOPSIS method. According to the findings; the capital adequacy ratio is often the most important indicator of financial performance. In addition, although it varies according to the years, it has been determined that Saudi Arabia and Iraq are the countries with the highest financial performance. These findings provide a solid foundation for a deeper analysis of the strengths and weaknesses of the Islamic banking sector. In particular, the significance of the capital adequacy ratio enables Islamic banks to reassess their risk management strategies and evaluate their capital structures more effectively. The country-specific performance analysis highlights disparities in financial success, offering strategic opportunities for policymakers and regulatory authorities to foster the exchange of best practices among nations. Furthermore, it is anticipated that these findings will contribute to the development of targeted improvement policies for Islamic banks operating in underperforming countries. Additionally, the study serves as a valuable resource for guiding efforts toward achieving sustainable growth objectives across the sector. This research contributes to both practical applications and academic literature, ultimately strengthening the financial stability of the Islamic banking industry.

Jel Classification: G20, G21, G29
Keywords: Islamic Finance, Islamic Banking, Financial performance, Organization of the Islamic Cooperation (OIC), NMV and TOPSIS Methods

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Giriş

İslami bankacılık sistemi geleneksel bankacılık sisteminden farklı olarak faizi yasaklayan, bunun yerine kâr ve zarar paylaşımı ilkesini esas alan ve İslâm hukuku prensiplerini dikkate alan bir bankacılık sistemidir (Ariff, 1988). Bu sistemde prensiplerdeki farklılıklara rağmen, İslami bankalar da geleneksel bankalarda olduğu gibi kârlarını yüksek tutmayı hedeflemektedir. Bu nedenle, İslami bankaların finansal performanslarının analizi hem akademik hem de sektörel anlamda önem taşımaktadır.

Finansal performans, bir bankanın kaynaklarını ne kadar etkin ve verimli kullandığını ortaya koyan önemli bir ölçüttür. Literatürde, bankaların finansal performansını değerlendirmek için sıklıkla sermaye yeterlilik oranı (CAR), özkaynak kârlılığı (ROE) ve aktif kârlılığı (ROA) gibi göstergeler kullanılmaktadır (Samad & Hassan, 1999). İslami bankaların bu göstergeler çerçevesindeki ele alınan finansal performansı ortaklar, müşteriler, yatırımcılar ve diğer paydaşlar için önem taşımaktadır. Bu öneme binaen son yıllarda İslami bankacılık sektörünün hızlı bir şekilde büyümesiyle birlikte, bu bankaların finansal performanslarına yönelik çalışmalar da artış göstermiştir. İslami bankacılığın yoğun faaliyet gösterdiği ülkeler ise İslam İşbirliği Teşkilatı (OIC) üyelerinden oluşmaktadır.

OIC, 57 üye ülkeyi kapsayan geniş bir coğrafyada faaliyet göstermektedir (OIC, 2024). İslami bankacılık, OIC üyesi ülkelerin finansal sistemlerinde hem bölgesel hem de küresel düzeyde dikkat çekmektedir (Kamalu & Wan Ibrahim, 2021). Bu ülkelerdeki finansal performans; ekonomik gelişmişlik düzeyi, finansal altyapı ve hukuki düzenlemeler gibi faktörlere bağlı olarak değişiklik göstermektedir. Bu bağlamda, İslami bankaların finansal performanslarının karşılaştırmalı olarak incelenmesi, sektörel dinamiklerin daha iyi anlaşılmasına katkı sağlayacaktır.

Bankacılık sektörünün finansal sistemin ayrılmaz bir parçası olduğu gerçeği, 1990'lı yıllardan itibaren finansal kurumların etkinliğine odaklanan araştırmaların artmasına neden olmuştur (Berger & Humphrey, 1997). Günümüzde ise bankaların finansal performansını değerlendiren çalışmalar arasında, çok kriterli karar verme yöntemlerinin kullanımı dikkat çekmektedir (Matousek vd., 2015). Bu bağlamda, bu çalışma, TOPSIS yöntemi ile OIC üyesi ülkelerde faaliyet gösteren İslami bankaların finansal performansını analiz etmeyi amaçlamaktadır.

Bu çalışma, İslami bankaların finansal performanslarını NMV tabanlı TOPSIS yöntemiyle analiz ederek literatüre özgün bir katkı sunmayı hedeflemektedir. Çalışmanın özgün değeri, çok kriterli karar verme yöntemlerinin OIC üyesi ülkeler özelinde uygulanması ve İslami bankaların verimliliğine dair derinlemesine bir değerlendirme sunmasıdır. Ayrıca bu araştırma, İslami bankaların performansını etkileyen faktörlerin belirlenmesi konusunda yeni bir perspektif kazandırmayı amaçlamaktadır.

Yapılan çalışma 5 kısımdan oluşmaktadır. Öncelikle konuyla ilgili kavramlar giriş bölümünde açıklanmıştır. İkinci kısımda araştırmayla ilgili literatürdeki çalışmalar özetlenmiştir. Üçüncü kısımda araştırmada kullanılan teknikler hakkında bilgi verilmiştir. Dördüncü kısımda araştırmadan elde edilen bulgular ortaya konulmuştur. Beşinci ve son kısımda hem çalışmanın önemi hem de bulguların yorumu ve değerlendirilmesiyle beraber öneriler verilerek çalışma sona erdirilmiştir.

1. Literatür Çalışmaları

Bankacılık sektörünün verimliliğine yönelik birçok akademik çalışma bulunmaktadır. Gelişmekte olan piyasalarda bankacılık verimliliğinin incelenmesine yönelik artan eğilime rağmen, çalışmaların çoğu odak grubu olarak gelişmiş ekonomileri ele almıştır (Kenjegalieva & Simper, 2011). Matousek vd. (2015), bankacılık verimliliği üzerine kapsamlı bir literatür taraması ile Avrupa Birliği'ndeki (AB) 400 bankanın finansal performansını analiz etmiştir. Rezvanian ve Mehdian (2024), Amerika Birleşik Devletleri'ndeki (ABD) 732 bankanın global finansal krizdeki finansal performansını Veri Zarflama Analizi (VZA) yöntemi ile ele almışlardır. Mirović vd. (2024), AB'deki bankaların kârlılıklarını GMM yöntemi ile analiz etmişlerdir. Bankacılık yanında tüm finansal kuruluşların verimliliği hususunda çalışmalar da bulunmaktadır (Azad vd., 2014). Bunun yanı sıra ülke ve bölge bazında çalışmalar da bulunmaktadır. Olson & Zoubi (2011), Orta Doğu ve Kuzey Afrika (MENA) ülkelerindeki bankaların muhasebe tabanlı ve ekonomi tabanlı verimlilik ve kârlılık ölçümlerini karşılaştırmıştır. Sufian (2009), 1997 Doğu Asya krizinden bir yıl sonra Malezya bankacılık sektöründeki yüksek derecedeki verimsizliği VZA analizi ile ortaya koymuştur.

Son yıllarda, İslami bankacılığın geleneksel bankacılık sistemine kıyasla görece yeni bir yapı olması nedeniyle, bu alandaki verimliliği araştırmaya yönelik yoğun akademik çalışmaların gerçekleştirildiği dikkat çekmektedir. Çalışmaların bir kısmı krizler, Covid-19 ve risk durumlarında bankacılık verimliliğinin İslami bankalar üzerindeki etkisine odaklanmıştır (Alexakis vd., 2019; Alqahtani & Mayes, 2018; Boumediene & Caby, 2009; Chapra, 2007, 2008, 2011; Chazi vd., 2024; Ededjo, 2023; Fajri vd., 2022; Mirzaei vd., 2024; Pappas vd., 2016; Sarıdoğan, 2020). Bazı çalışmalar ise İslami bankaların kârlılığı üzerine yoğunlaşmıştır (Hossain, 2024; Safdar vd., 2024; Salem, 2022).

Öte yandan, Körfez İşbirliği Konseyi (GCC) ülkelerinde yer alan bankacılık sektörlerine ilişkin ampirik kanıtlar nispeten sınırlıdır. Bugüne kadar Olson & Zoubi (2008), Zeitun vd. (2013), Maghyereh & Awartani (2014), Belanès vd. (2015), Kamarudin vd. (2016) ve Alqahtani vd. (2017), GCC ülkelerinde bankacılık sektörünün etkinliğini incelemek amacıyla gerçekleştirilen en dikkat çekici ampirik araştırmalar arasında yer almaktadır.

Olson ve Zoubi (2008), kârlılık, verimlilik, kredi riski, likidite ve risk oranları olmak üzere beş farklı oranı kullanarak GCC ülkelerindeki İslami ve geleneksel bankaların performansını incelemişlerdir. İslami bankaların geleneksel bankalardan daha kârlı olduğu sonucuna ulaşmışlardır.

Zeitun ve diğerleri (2013), VZA yöntemini kullanarak 2002-2010 döneminde GCC'deki 65 geleneksel ve İslami bankanın verimliliğini araştırmışlardır. Analizde ele aldıkları bazı modellere göre İslami bankaların geleneksel bankalara göre daha az verimli olduğunu tespit etmişken bazı modellere göre önemli bir verimlilik farkının olmadığını bulmuşlardır.

Maghyereh ve Awartani (2014), VZA yöntemini kullanarak 2000-2009 yılları arasında GCC'deki 70 bankanın verimliliğini incelemişlerdir. Verimliliğin piyasa yapısı, düzenleyici ortam ve bankalar tarafından gerçekleştirilen riskli faaliyetlerden bağımsız olmadığını tespit etmişlerdir. Güçlü sermaye yapısının, piyasa disiplininin ve denetim gücünün banka verimliliğine katkıda bulunduğunu; piyasa gücünün ise daha düşük banka verimliliğine yol açtığını bulmuşlardır.

Belanès vd. (2015), 2005-2011 dönemi için VZA yöntemini kullanarak GCC bölgesindeki İslami bankaların verimliliği üzerinde 2008 krizinin etkisini araştırmışlardır. Ampirik bulgularında; 2008 krizi sonrasında İslami bankaların verimliliğinde, dünyadaki çoğu geleneksel bankalarda olduğu gibi hafif bir düşüş olduğunu bulmuşlardır.

Kamarudin vd. (2016), 2007-2011 döneminde GCC ülkeleri bankacılık sektörlerinde faaliyet gösteren İslami ve geleneksel bankaların gelir verimliliklerini VZA ile analiz etmişlerdir. Ampirik bulgular; hesap verebilirliğin, hükümet etkinliğinin ve hukukun üstünlüğünün hem İslami hem de geleneksel bankaların gelir verimliliğini artırdığını göstermiştir.

Birçok ülkede faaliyet gösteren İslami bankaların verimliliği üzerine akademik çalışmalar da literatürde yer almaya başlamıştır.

Wanke vd. (2016), Malezya'daki İslami bankaların etkinliğini TOPSIS yöntemi ile değerlendirmişlerdir. Sonuçlar maliyet yapısının en önemli verimlilik etkenini oluşturduğunu ortaya koymuştur. Wasiaturrahma vd. (2020) ile Hamidi & Rusydiana (2019), Endonezya'daki İslami bankalar ile geleneksel bankaların verimliliklerini VZA ile analiz etmişlerdir. Öner (2022), Covid-19 döneminde katılım bankalarının finansal performansını TOPSIS yöntemi ile araştırmıştır. Boubaker vd. (2023), tarafından yapılan çalışmada İslami bankacılık sektörününün performansını VZA yöntemi ile analiz edilmiştir. Analiz sonuçlarına göre İslami bankaların Covid-19 döneminde, işletme gelirleri ve kazanç varlıkları gibi çıktılarını artırmada veya sürdürmede zorluklarla karşılaştığını savunmaktadırlar. Mai vd. (2023), 6 ülkedeki (2005-2020) 79 İslami bankanın genel verimliliğini değerlendirmek için VZA analizini kullanmışlardır.

İncelenen literatür, İslami bankacılık sektörüne ilişkin mevcut çalışmaların belirli eksikliklerini gidermeyi amaçlamaktadır. Birincisi, literatürde gelişmekte olan ülkelerdeki İslami bankacılık sektörüne ilişkin çalışmalar, konvansiyonel bankacılık sektörü ile karşılaştırıldığında oldukça sınırlıdır. Mevcut çalışmaların büyük bir kısmı, gelişmiş ülkelerdeki bankacılık sektörünü analiz etmeye odaklanmıştır. İkincisi, bu çalışmalar genellikle benzer değişkenler ve sınırlı ülke örneklemleri üzerinden yürütülmüştür. Bu durum farklı değişkenler ile daha geniş coğrafi bölgelerin etkilerini anlamayı zorlaştırmaktadır. Üçüncüsü, literatürün büyük bölümü kriz dönemlerinde yalnızca kısa vadeli etkiler üzerinde durmuştur; oysa uzun dönemli etkiler büyük ölçüde göz ardı edilmiştir. Bu bağlamda, bu çalışma, İslam İşbirliği Teşkilatı (OIC) seçilmiş ülkelerin finansal verilerini kullanarak daha kapsamlı bir performans analizi yapmayı amaçlamaktadır. Yapılan çalışma ise geniş bir ülke örneklemi üzerinden gerçekleştirilen analizlerle, literatürdeki bu boşlukları doldurarak İslami bankacılık sektörüne dair önemli yeni bulgular sunmayı hedeflemektedir.

2. Yöntem

Araştırmanın yöntem bölümünde; araştırmada kullanılan veri seti, veri setini oluşturan göstergeler ve araştırmada kullanılan teknikler hakkında bilgi verilmiştir.

2.1. Araştırmanın Örneklemi

İslami Finansal Hizmetler Kurulu (IFSB) tarafından yayınlanan verilere göre İslam İşbirliği Teşkilatı'na üye ülkelerin 2018-2023 yılları arası finansal göstergeler yardımıyla İslami bankacılık sektörünün finansal performans ölçümü yapılmıştır. Bu ölçüm

yapılırken verilerine erişilebilen 13 ülkeye ait 8 göstergeden yararlanılmıştır. Araştırmanın örneklemi Tablo 1'de yer almaktadır.

Tablo 1: Veri Seti

Ülkeler	Göstergeler
Türkiye	X1: Sermaye yeterlilik oranı (SYO)
Bangladeş	X2: Aktif kârlılığı (ROA)
Brunei	X3: Özsermaye kârlılığı (ROE)
Endonezya	X4: Cari oran (CO)
Ürdün	X5: İslami banka sayısı (İBS)
Irak	X6: Ulusal şube sayısı (UŞS)
Kuveyt	X7: ATM sayısı (ATM)
Umman	X8: Personel sayısı (PS)
Pakistan	
Filistin	
Katar	
Suudi Arabistan	
Birleşik Arap Emirlikleri (BAE)	

Tablo 1'de görülen araştırma örnekleminde; 2018-2023 yılları arasını kapsayan 6 yıla ait yıllık veriler, 13 OIC ülkesi ve 8 finansal gösterge kullanılmıştır. Örneklemin bu şekilde seçilmesi; son yıllarda OIC üyesi ülkelerin finansal performans gelişimini görmek ve verilere ulaşmada yaşanılan sorunlardan dolayı örneklemin sınırlandırılması gibi gerekçelerden kaynaklanmaktadır. Aslında hedeflenen OIC ülkelerinde bankacılık sektörünün hangi finansal performans göstergesine önem verdiğini tespit ederek, ülkeleri bankacılık sektörü açısından finansal performans göstergelerine göre sıralamaktır. Örneklemi oluşturan göstergeler, literatürde finansal performans göstergesi olarak kullanılan ve literatüre göre seçilen göstergelerdir. Finansal performans ölçümünde ulaşılan verilere göre farklı göstergeler kullanılabilir. Ayrıca örneklemdeki ülke grubu seçiminde ise verilerine ulaşılabilen ülkeler seçilmiştir. Bahreyn ve Malezya gibi İslami finansın geliştiği ülkelerin veri yetersizliğinden ötürü bu ülkeler, örneklem dışı bırakılmıştır. Araştırmada kullanılan göstergeler Tablo 2'de açıklanmıştır.

Tablo 2: Araştırmanın Kriterleri

X1: Sermaye yeterlilik oranı veya rasyosu olarak ifade edilen bu oran bankaların özkaynaklarının, kredi, piyasa ve operasyonel risklerin tümünün toplamına oranlanmasıyla hesaplanmaktadır. Bu oranın Basel anlaşmalarına göre % 8'den az olmaması gereklidir (Joseph, 2013: 246). Sermaye yeterliliğiyle beraber risk ölçümü, iç denetim ve güçlü risk yönetimine sahip bir sisteme sahip olunmalıdır (Van Gestel & Baesens, 2009: 418). Dolayısıyla bu oran, kriz vb. olağan dışı durumlara karşı temkinli bir yapı oluşturmaktadır. Diğer bir ifadeyle bankaları karşılaşılabilecek risklere ve finansal şoklara karşı koruyan risk göstergelerindendir.
X2: Aktif kârlılığı (ROA); net kârın aktif toplamına oranlanmasıyla hesaplanmakta ve mevcut varlıkların ne kadar verimli kullanıldığını göstermektedir. ROA değerindeki yükseliş arttıkça yapılan yatırımların kâra dönüştüğü görülmektedir (Akgül, 2020: 994-995).
X3: Özsermaye kârlılığı (ROE); net kârın özsermayeye oranlanmasıyla hesaplanmakta ve özsermaye üzerinden elde edilen kârı göstermektedir. ROE'nin yüksekliği başarılı bir özsermaye yönetimi yapıldığını ve kârın arttığını belirtmesine rağmen, aşırı artışı ise yüksek riske katlanıldığı anlamına geldiği için dikkatli analiz edilmesi son derece önemlidir (Sanalan Bilici, 2019: 43).
X4: Cari oran; dönen varlıkların kısa vadeli yabancı kaynaklara oranlanmasıyla bulunmakta ve kısa vadeli borç ödeme gücü ile net işletme sermayesinin yeterliliğini göstermektedir (Sümer & Perek, 2013: 48).
X5: İslami banka sayısı; bir ülkede faizsiz bankacılık modeline göre faaliyetlerini sürdüren bankaların sayısıdır. Türkiye'de katılım bankacılığı olarak adlandırılan bu sistem, diğer ülkelerde İslami bankacılık ismiyle kullanılmaktadır.
X6: Ulusal (yurtiçi) şube sayısı; bir ülkede faizsiz bankacılık sistemine göre kurulan bankaların ulusal şube sayılarını göstermektedir.
X7: ATM sayısı; bir ülkedeki bankamatik olarak çalışan otomatik vezne makinelerinin sayısını göstermektedir.
X8: Personel sayısı; faizsiz bankacılık sisteminde istihdam edilen personel sayısını göstermektedir.

2.2. Araştırmanın Metodu

Araştırmada iki çok kriterli karar verme tekniğinden yararlanılmıştır. İlk teknik, değişkenlerin ağırlığını hesaplamak için kullanılan "Normalize Edilmiş Maksimum Değerler" yöntemidir. Hesaplanan ağırlıklara göre performans sıralaması yapmak için ise "TOPSIS" yöntemi kullanılmıştır.

2.2.1. NMV

2017 yılında Tevfik Bulut tarafından geliştirilen, kısa ve anlaşılır bir tekniktir. 4 aşamadan oluşmaktadır. Birinci aşamada karar matrisi oluşturulmaktadır. İkinci aşamada veriler 0-1 arasına indirgenerek oransal değerlere dönüştürülmektedir. Üçüncü aşamada maksimum kriter baz alınarak normalizasyon matrisi oluşturulmaktadır. Son aşamada ise kriter ağırlıkları hesaplanmaktadır (Bulut, 2017).

2.2.2. TOPSIS

Technique for Order Preference by Similarity to an Ideal Solution olarak adlandırılan TOPSIS yöntemi, benzer ideal çözümler arasından en iyi tercihi seçme tekniğidir. Hwang ve Yoon (1981) tarafından geliştirilmiş yöntemin amacı; pozitif çözüme en yakın, negatif çözüme en uzak alternatifi tespit etmektir (Cristobal, 2012: 752; Nan & Tian, 2011, 1141; Cheng, Chang & Huang, 2003: 550). TOPSIS yönteminde 6 aşama yer almaktadır (Mahmoodzadeh vd., 2007: 336-337).

1. aşama: çok kriterli karar verme tekniklerinin hemen hemen hepsinde yer alan karar matrisi oluşturma kısmıdır.

2. aşama: karar matrisinin normalize edilmesi aşamasıdır. 1 numaralı formülle hesaplanmaktadır.

$$r_{ij} = \frac{a_{ij}}{\sqrt{\sum_{k=1}^{m} a_{kj}^2}}$$

3. aşama: daha önceden belirlenen ağırlıklar yardımıyla ağırlıklı standart karar matrisi oluşturulmasıdır. Ağırlıkların tümünün toplamının 1'e eşit olması zorunluluktur. Aksi durumda yöntemin uygulanması hatalı sonuçlar verecektir. Bu aşamada ağırlıklar ile normalize edilmiş matris değerleri çarpılmaktadır.

4. aşama: ideal ve negatif ideal çözümlerin oluşturulmasıdır. Bu adımda kullanılan kriterin pozitif veya negatif nitelik taşıması önceden tespit edilerek çözüm oluşturulmaktadır. Kriter pozitif yönlüyse ideal çözüm, negatif yönlüyse negatif ideal çözüm hesaplanmaktadır.

5. aşama: ayırım ölçülerinin hesaplanmasıdır. Bu aşamada bir önceki aşamada belirlenen pozitif ve negatif ideal çözümler dikkate alınmaktadır. Hesaplanış biçimi 2 numarada yer alan formüllerle yapılmaktadır.

$$S_i^* = \sqrt{\sum_{j=1}^{n} (v_{ij} - v_j^*)^2} \quad S_i^- = \sqrt{\sum_{j=1}^{n} (v_{ij} - v_j^-)^2}$$

Pozitif ideal ayırım (S_i^*) ve negatif ideal ayırım (S_i^-) sembolleriyle gösterilmektedir.

6. aşama: ideal çözüme göre yakınlığın hesaplanmasıdır. İdeal çözümden kastedilen pozitif çözüme en yakın değerin bulunmasıdır. İdeal çözüme göreli yakınlık C_i^* ile gösterilmekte ve 3 numaralı formülle hesaplanmaktadır.

$$C_i^* = \frac{S_i^-}{S_i^- + S_i^*}$$

$0 \le C_i^* \le 1$ eğer $C_i^* = 1$ çıkarsa sonuç pozitif ideal çözüme yakın iken, $C_i^* = 0$ çıkarsa sonuç negatif ideal çözüme yakındır. Son olarak elde edilen C puanlarına göre büyükten küçüğe sıralama yapılarak en uygun ve en iyi alternatif tespit edilmektedir.

3. Bulgular

Araştırmada kullanılan ilk yöntem olan NMV yöntemiyle OIC ülkelerinin finansal performans göstergelerinin ağırlığı tespit edilmiştir. Bu tespit IFSB tarafından yayınlanan veriler yardımıyla 2018-2023 yılları arası 6 yıl için yapılmıştır. Sonuçlar Tablo 3'de yer almaktadır.

Tablo 3: NMV Puanları

Göstergeler / Yıllar	2018	2019	2020	2021	2022	2023	Ortalama
SYO	8,956653	9,286917	17,11303	16,72828	15,72791	15,69702	13,9183
ROA	13,34989	5,405338	7,616887	9,611621	10,99544	10,29548	9,545776
ROE	12,10346	12,10879	12,26457	13,09697	11,12052	13,23531	12,3216
CO	10,18064	12,38422	9,021762	9,959296	9,466596	8,463348	9,912644
İBS	14,28275	14,82985	14,9273	15,19335	14,36456	14,18737	14,63086
UŞS	11,17841	12,84044	11,1006	10,21726	12,05952	13,65814	11,8424
ATM	16,22258	18,32334	15,44158	13,97674	13,21468	12,67312	14,97534
PS	13,72562	14,82111	12,51427	11,21647	13,05078	11,79022	12,85308
Toplam	% 100	% 100	% 100	% 100	% 100	% 100	% 100

Tablo 3'te yer alan NMV puanlarına göre;

- 2018 yılı için en önemli finansal performans göstergesi % 16,22 ile ATM sayısıdır. En az önem verilen gösterge ise % 8,95 ile sermaye yeterlilik oranıdır.
- 2019 yılı için en önemli finansal performans göstergesi % 18,32 ile ATM sayısıdır. En az önem verilen gösterge ise % 5,40 ile ROA'dır.
- 2020 yılı için en önemli finansal performans göstergesi % 17,11 ile sermaye yeterlilik oranıdır. En az önem verilen gösterge ise % 9,02 ile cari orandır.
- 2021 yılı için en önemli finansal performans göstergesi % 16,72 ile sermaye yeterlilik oranıdır. En az önem verilen gösterge ise % 9,61 ile ROA'dır.
- 2022 yılı için en önemli finansal performans göstergesi % 15,72 ile sermaye yeterlilik oranıdır. En az önem verilen gösterge ise % 9,46 ile cari orandır.
- 2023 yılı için en önemli finansal performans göstergesi % 15,69 ile sermaye yeterlilik oranıdır. En az önem verilen gösterge ise % 8,46 ile cari orandır.

Elde edilen bulgular ışığında NMV puanları bütünüyle yorumlandığında; 4 yılda en önemli finansal performans göstergesinin ATM sayısı, İslami banka sayısı ve sermaye yeterlilik oranı olduğu görülmüştür. ATM sayısının önemi; OIC ülkelerinde yaşayan insanların nakit ihtiyacı olduğunda sıkıntı çekmeyecekleri hatta dijital bankacılığa geçiş sürecinde ilerleme gösterdikleri ve şubeye erişime gerek duymadan insanların nakit ihtiyaçlarını giderecekleri şeklinde yorumlanabilir. İslami banka sayısının yüksek olması ise; OIC ülkelerinde faizsiz bankacılık sistemi dolayısıyla mevduat bankaları yerine katılım bankalarının ya da İslami bankaların tercih edilmesi İslami banka sayısının yüksek olmasına neden olmaktadır. Sermaye yeterlilik oranının yüksek olması; OIC ülkelerindeki bankacılık sektörünün finansal performansında Basel Kriterleri'nin önem arz ettiğini ortaya koymaktadır. Çünkü Basel Kriterleri sonucu doğan sermaye yeterlilik oranının İslami bankacılığın gelişmesinde rolü büyüktür. Hatta bu oran bankaların etkin risk yönetim sistemine sahip olmalarına yardımcı olmaktadır. Finansal performans göstergelerinden önemi en düşük olanlar ise ROA ve cari orandır. Bu bulgular ışığında; bankacılık sektörünün kısa vadeli nakit ihtiyacı sıkıntısı yaşadığı ve aktif kârlılığının düşük olduğu çünkü sahip olduğu varlıklardan yeterince kâr üretemediği veya üst yöneticilerin varlıkları verimli kullanamadığı şeklinde ifade edilebilir. Önem düzeyleri

belirlenen finansal performans göstergelerine göre OIC ülkelerinin finansal performansını ölçmek için ise TOPSIS tekniği kullanılmıştır. 2018 ve 2019 yılına ait TOPSIS sonuçları Tablo 4'de görülmektedir.

Tablo 4: TOPSIS Skorları (2018 & 2019 yılları)

2018			2019		
Ülkeler	**Puanlar**	**Sıralama**	**Ülkeler**	**Puanlar**	**Sıralama**
Suudi Arabistan	0,65175446	1	Suudi Arabistan	0,65500658	1
Endonezya	0,5213619	2	Endonezya	0,50760773	2
Bangladeş	0,38592754	3	Pakistan	0,42213296	3
Pakistan	0,35450911	4	Bangladeş	0,41097836	4
Türkiye	0,34320641	5	Türkiye	0,38010425	5
BAE	0,24691008	6	BAE	0,26516535	6
Ürdün	0,15201437	7	Ürdün	0,21391045	7
Kuveyt	0,14032246	8	Kuveyt	0,19263965	8
Katar	0,1400234	9	Brunei	0,1911156	9
Brunei	0,12879667	10	Katar	0,18294918	10
Filistin	0,06718521	11	Filistin	0,14253443	11
Umman	0,02209128	12	Umman	0,01009321	12

Tablo 4 incelendiğinde; 2018 yılında finansal performansı en iyi ülke Suudi Arabistan iken, Umman yetersiz performansa sahiptir. 2019 yılında da benzer biçimde Suudi Arabistan en yüksek, Umman en düşük performansa sahiptir. Bunun gerekçesi olarak; Suudi Arabistan'ın İslami Finans endüstrisinde zirvede yer alması söylenebilir. 2020 ve 2021 yılına ait TOPSIS sonuçları Tablo 5'te verilmiştir.

Tablo 5: TOPSIS Skorları (2020 & 2021 yılları)

2020			2021		
Ülkeler	**Puanlar**	**Sıralama**	**Ülkeler**	**Puanlar**	**Sıralama**
Irak	0,48382155	1	Irak	0,54217651	1
Suudi Arabistan	0,46989001	2	Suudi Arabistan	0,40600971	2
Endonezya	0,39736352	3	Endonezya	0,37276641	3
Pakistan	0,37589816	4	Bangladeş	0,36196311	4
Bangladeş	0,36478352	5	Pakistan	0,33665715	5
Türkiye	0,30360401	6	Türkiye	0,2835969	6
Ürdün	0,1908605	7	BAE	0,16952451	7
BAE	0,19018233	8	Ürdün	0,15150738	8
Katar	0,17579729	9	Kuveyt	0,12148003	9
Brunei	0,17009874	10	Katar	0,11896051	10
Kuveyt	0,15848965	11	Brunei	0,10996756	11
Filistin	0,117885	12	Filistin	0,09742632	12
Umman	0,00799215	13	Umman	0,04237487	13

Tablo 5 incelendiğinde; 2020 yılında finansal performansı en iyi ülke Irak iken, Umman en düşük performansa sahiptir. 2021 yılında aynı şekilde Irak'ın finansal performansı en yüksek, Umman ise en düşük performansa sahiptir. Irak finansal açıdan İslami finans endüstrisinin öncü ülkelerinden olduğu için zirvede yer almaktadır. 2022 ve 2023 yılına ait TOPSIS sonuçları Tablo 6'da verilmiştir.

Tablo 6: TOPSIS Skorları (2022 & 2023 yılları)

2022			2023		
Ülkeler	**Puanlar**	**Sıralama**	**Ülkeler**	**Puanlar**	**Sıralama**
Irak	0,47249764	1	Pakistan	0,544511	1
Endonezya	0,44343054	2	Irak	0,443248	2
Pakistan	0,42819793	3	Türkiye	0,39722	3
Suudi Arabistan	0,4103394	4	Endonezya	0,383037	4
Türkiye	0,38209731	5	Suudi Arabistan	0,368826	5
BAE	0,15235273	6	Kuveyt	0,113092	6
Ürdün	0,1209681	7	Ürdün	0,110101	7
Kuveyt	0,10902554	8	Brunei	0,098064	8
Brunei	0,08636286	9	Filistin	0,037529	9
Filistin	0,07400011	10	Umman	0,034761	10
Umman	0,02114641	11			

Tablo 6 incelendiğinde; 2022 yılında finansal performansı en iyi ülke Irak iken, Umman en düşük performansa sahiptir. 2023 yılında Pakistan'ın finansal performansı en yüksek, Umman ise en düşük performansa sahiptir. Pakistan'ın bankacılık sektörü Covid-19 pandemisinin etkilerinden kurtulmaya başlayarak finansal performansta büyük bir atılım göstermiştir. TOPSIS sonuçlarının bir bütün olarak grafiğe dökülmüş hâli Şekil 1'de görülmektedir.

Şekil 1: TOPSIS Skorları (2018 - 2023 yılları arası)
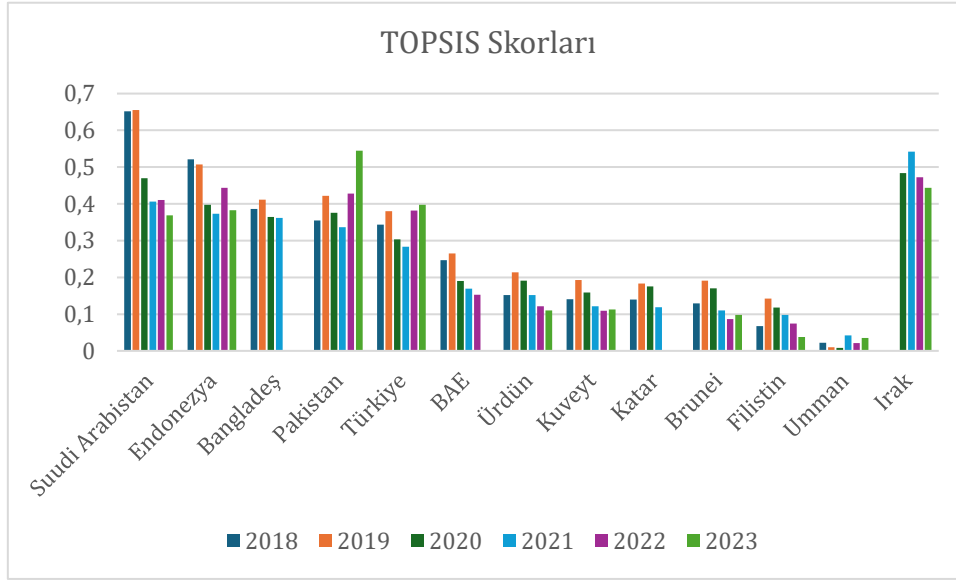
Şekil 1'e göre; tüm yıllara ait ülkelerin finansal performansları ve hangi yılda hangi ülkenin daha iyi performansa sahip olduğu görülmektedir. Tüm yılların ortalamalarına göre Suudi Arabistan, Irak ve Endonezya'nın finansal performansa göre zirvede oldukları görülmektedir. Bu üç ülkenin zirvede yer almasının; İslami banka sayısının ve ATM sayısının fazla olması, İslami finans sektörünün ticari bankalara göre daha baskın olması, faizsiz finans sisteminin ülke geneline yayılması gibi gerekçeleri sunulabilir.

Sonuç

Faizsiz bankacılık sistemi olarak ifade edilebilen İslami bankacılık, sistem olarak geleneksel bankacılıktan farklı olsa da temelinde yüksek kâr hedefi bulunmaktadır. Bu hedefi gerçekleştirmek için istikrarlı ve sürekli gelişim gösteren finansal performans son derece önem arz etmektedir. Finansal performans ölçümüyle beraber bankaların mevcut kaynaklarını etkin ve verimli kullanma ölçüsü tespit edilmektedir. Bu tespiti gerçekleştirmek için literatürde kullanılan finansal performans göstergelerinden yararlanılmıştır. Bu göstergeler; sermaye yeterlilik oranı, ROA, ROE, cari oran, İslami banka sayısı, ulusal şube sayısı, ATM sayısı ve personel sayısıdır. Sermaye yeterlilik oranı Wasiaturrahma vd. (2020), ROA ve ROE Rezvanian ve Mehdian (2024), şube sayısı ve ATM sayısı Aycin & Orçun (2019); Gençtürk vd. (2021), personel sayısı Hamidi & Rusydiana (2019); Matousek vd. (2015) olmak üzere literatürdeki araştırmalardan derlenmiştir.

Çalışmada finansal performans göstergesi olarak belirlenen 9 göstergenin 2018-2023 yılları arasını kapsayan 6 yıllık analizi OIC'e üye 13 ülke için gerçekleştirilmiştir. OIC üyesi ülkelerde İslami bankacılık faaliyetleri yoğun bir biçimde devam etmektedir. OIC'e üye 57 ülke olmasına rağmen, çalışmanın örneklemi belirlenen finansal performans göstergeleriyle ilgili verilerine ulaşılabilen 13 ülkeden oluşmaktadır. Ayrıca örneklem

olarak bu ülkelerin seçilmesinin nedeni; OIC üyesi ülkelerin finansal performans durumunu görebilmek ve kıyaslamaktır.

Bu çalışmada NMV tabanlı TOPSIS yöntemi kullanılmıştır. Bu iki yöntem, hem göstergelerin ağırlığını bulmak hem de performans sıralaması yapmak için tercih edilmiştir. NMV skorlarına göre; İslami banka sayısı, ATM sayısı ve sermaye yeterlilik oranı en önemli göstergeler olarak saptanmıştır. ATM sayısına verilen önem, insanların nakit ihtiyacı olduklarında şubeye gereksinim duymaksızın nakit sorununu ortadan kaldıracaklarına işaret etmektedir. İslami banka sayısının yüksek olması, faizsiz bankacılık sisteminin daha baskın olduğunu göstermektedir. Sermaye yeterlilik oranına verilen önem ise Basel Kriterleri'nin ortaya koyduğu asgari sermaye yeterlilik oranı gereği bir zorunluluktur. ROA ve cari orana verilen önemin düşük olması; bankacılık sektöründe yaşanılan likidite sıkıntısına ve varlıklarından yeterince kâr elde edilmediğine işaret etmektedir.

TOPSIS skorlarına göre ise; Irak ve Suudi Arabistan'ın finansal performansı en yüksek seviyededir. Bu sonuç, İslami Finans endüstrisinin zirvesinde yer alan 2 ülke için olası bir senaryodur. Çünkü bu ülkelerde İslami banka sayısı ve ATM sayısı fazladır. Öte yandan bu ülkelerde İslami finans sektörü daha dominant olup, faizsiz finansa dayalı bir bankacılık sistemleri bulunmaktadır.

Gerçekleştirilen bu çalışmanın literatüre OIC üyesi ülkeler özelinde katkı sunacağı ve İslami bankacılık sektörünün ülke bazında karşılaştırılması yapılarak öneri sunacağı düşünülmektedir. Çalışmanın ülke grubu, zaman grubu ve değişken sayısı farklılaştırılarak yapılması hem bu çalışmayla kıyası hem literatüre katkı sunması açısından önerilebilir.

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Dynamic Interconnectedness Between Islamic and Conventional Stocks in GCC Economies: Application of TVP-VAR Analysis

Körfez İş birliği Konseyi Ekonomilerinde İslami ve Geleneksel Hisse Senetleri Arasındaki Dinamik Bağlantı: TVP-VAR Analizi Uygulaması

Abstract

Islamic finance has become one of the most important sources of the global financial system, and its growth potential has necessitated a detailed market analysis. In this study, Islamic markets are analyzed by comparing them with conventional markets to find out whether they act differently from other financial products in crisis and protect their investors, that is, whether they act as a safe haven. The extent to which Islamic and conventional stocks experience connectedness during crisis periods, their aggregate dynamic connectedness structure, and which markets transmit or receive the most shocks have prompted this research. This study examines the dynamic connectedness structure between Islamic and conventional stocks in Gulf Cooperation Council (GCC) economies by using daily data for 23.06.2015- 8.08.2024 through the TVP-VAR model. The research includes additional analyses for investors with a short-term and long-term investment approach. The degree of short-term and long-term connectedness is analyzed to determine whether the market is a transmitter or a receiver of shocks. Short-term (frequencies in the 1-5 day period) and long-term (frequencies in the period longer than 5 days) forecast horizons are modeled. According to the findings on frequency connectedness, in both markets, short-run transmission rather than long-run transmission is found to be the main source of connectedness. The connectedness in Islamic and conventional markets has a similar structure during periods when risk decreases and increases. In general, during the 2015-2016 oil crisis period, the 2020 COVID-19 period, the February 2022 Russia-Ukraine war, and the October 2023 Israel-Palestine war, total connectedness increased and the market's receiver or transmitter positions changed. Conventional markets have a higher level of connectedness than Islamic markets. However, this level is not strong enough to support the view that Islamic markets provide protection to investors and national economies in crisis and offer a safe harbor effect.

Öz

Küresel finansal sistemin önemli kaynaklarından biri haline gelen İslami finansın ulaştığı hacim ve muhtemel büyüme potansiyeli ayrıntılı piyasa analizi gereğini doğurur. Söz konusu öneminden dolayı kriz dönemlerinde diğer finansal ürünlerden farklı davranarak yatırımcısını koruma özelliği yani güvenli liman görevi görüp görmediğini tespit etmek amacıyla bu çalışmada İslami piyasalar, geleneksel piyasalar ile kıyaslanarak incelenmiştir. İslami ve konvansiyonel hisse senetlerinin kriz dönemlerinde ne ölçüde bağlantılılık yaşadıkları, toplam dinamik bağlantılılık yapıları ve hangi piyasaların daha fazla şok yaydığı veya aldığı bu araştırmayı yapmaya teşvik etmiştir. Bu çalışmada Körfez İş birliği Konseyi (KİK) ekonomilerinde İslami ve geleneksel hisse senetleri arasındaki dinamik bağlantılılık yapısı 23.06.2015- 8.08.2024 dönemine ait günlük veriler kullanılarak TVP-VAR modeli ile incelenmiştir. Araştırma ayrıca kısa vadeli ve uzun vadeli yatırım yaklaşımına sahip yatırımcılar için ek analizler de içermektedir. İncelenen piyasalar için kısa vadeli ve uzun vadeli bağlantılılık derecesi analiz edilerek piyasanın şokların alıcısı mı yoksa şokların yayıcısı mı olduğu belirlenmiştir. Bu amaçla, kısa vadeli (1-5 günlük dönemdeki frekanslar) ve uzun vadeli (5 günden uzun dönemdeki frekanslar) tahmin ufukları modellenmiştir. Frekans bağlantılılık yaklaşımı modeli kullanılan araştırma bulgularına göre, her iki piyasada da uzun dönemli bağlantılılıktan ziyade kısa dönemli bağlantılılığın temel kaynak olduğu görülmüştür. Toplam dinamik bağlantılılık sonuçlarına göre ise İslami ve konvansiyonel piyasalardaki bağlantılılık, riskin azaldığı ve arttığı dönemlerde benzer bir yapıya sahiptir. Genel olarak 2015-2016 petrol krizi dönemi, 2020 COVID-19 dönemi, Şubat 2022 Rusya-Ukrayna savaşı ve Ekim 2023 İsrail-Filistin savaşı dönemlerinde toplam bağlantılılık artmış ve piyasanın şokları alıcı veya yayıcı pozisyonları değişmiştir. Araştırma sonucunda elde edilen bir diğer önemli bulgu ise geleneksel piyasaların İslami piyasalara göre daha yüksek bir bağlantılılık düzeyine sahip olmasıdır. Ancak bu düzey, İslami piyasaların kriz dönemlerinde yatırımcılara ve ulusal ekonomilere koruma sağladığı ve güvenli liman etkisi sunduğu görüşünü destekleyecek kadar güçlü değildir.

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Introduction

The 20th-century crises and the unpredictability of the risks and uncertainties of conventional financial markets have increased financial actors' orientation toward Islamic financial markets. The value it adds to the development of countries and the real economy lies in its support for more realistic and impactful investments compared to the traditional financial system (Çetinkaya, 2023: 142), the fact that it has a structure to protect investors and the country economies from global fluctuations (Kuşat, 2014: 1), the fact that high leverage ratios and complex instruments in the conventional system lead to vulnerabilities and fragilities, causing many growth and recessions around the world (Koçak, 2018: 71-72), and the fact that Islamic finance involves lower risk than the conventional finance system with its asset-based structure (Güçlü and Kılıç; 2020: 89) can be counted among the reasons for the increasing interest in Islamic finance. Islamic finance is based on ethical banking, socially responsible investment, and community banking. Five fundamental principles govern Islamic finance: Freedom from Riba, Shari'a-Approved Activities, Risk-and-return sharing, sanctity of contract, and avoidance of Gharar. It aims to provide a domestic, equitable, and ethical financial system (Shanmugam & Zahari, 2009: 7-8). Islamic finance also allows non-Muslims to participate in the system. This contributes to market growth. According to the Islamic Financial Services Board and Islamic Development Bank Institute (2014: i), modern Islamic finance has developed more robust and better than ever in its 40-year history. Islamic finance is a $3.9 trillion industry across over eighty countries (Domat, 2024). The high development potential of Islamic finance has attracted the attention of organizations that have a say in the world economy, such as the World Bank and the IMF, as well as multinational conventional banks, and increased the interest of these institutions in Islamic finance (Güçlü and Kılıç; 2020: 89).

Determining factors affecting returns on financial assets has been one of the most researched topics in finance (Demir, 2024: 265), and it is essential to investigate Islamic financial markets in every period as much as conventional markets to guide the relevant parties. Islamic finance systems are based on Islamic beliefs; thus, all actions and deeds must be Sharia-compliant (Kuşat, 2014: 2). Islamic stocks are subject to Shariah screening to qualify as Shariah-compliant. The objectives of this study are (i) the aggregate dynamic connectedness structure of the Islamic and conventional markets of the GCC countries, (ii) the level of connectedness of Islamic and conventional stocks during crisis periods, and (iii) which markets transmitted or received the most significant shocks among Islamic and conventional markets. To answer these questions, TVP-VAR model was used. In choosing TVP-VAR over alternative econometric models, several advantages of TVP-VAR were taken into account. For instance, TVP-VAR can update its parameters according to time-varying dynamics. Traditional fixed-parameter models (DCC-GARCH, Rolling Window VAR, etc.), which could be alternative models, usually run with fixed parameters or update the parameters based on a given window length. For example, DCC-GARCH may be limited in modeling structural breaks. TVP-VAR can make more accurate forecasts in periods when markets are more dynamic and volatile. cADCC dynamic conditional correlation model, on the other hand, cannot explain which series are receivers and which series are transmitters (Benlagha et al. 2022: 2; Mishra & Ghate, 2022: 3-4; Gökgöz,

2022: 87). Moreover, TVP-VAR is faster in detecting structural changes than conventional fixed-parameter models. The study also applied the TVP-VAR model with frequency connectedness to provide guidance to investors considering short- and long-term investment plans and to test the model against each other. The TVP-VAR frequency connectedness approach makes it possible for the decomposition of volatility connectedness into short-run and long-run components when taking into account the time-varying coefficient and variance-covariance structure simultaneously without losing observations as no arbitrary rolling-window is employed, and meanwhile there is no need for the concern of outliers or erratic parameters (Huang et al.2023: 2). It is important to adapt to changing conditions in Islamic and conventional markets. In this study, TVP-VAR model is chosen because of its ability to detect changes in market structure, risks and uncertainties and to make fast and accurate forecasts. In addition to the advantages of the model, it has some limitations. These are as follows: a large and high-frequency data set is required to make accurate forecasts; the forecasting ability is weakened when low-frequency data or small data sets are involved. If we find answers to our questions, we will shed light on (i) whether Islamic and conventional equity markets offer diversification for investors, especially during crises, and (ii) whether the market's position as a shock receiver/transmitter should be taken into account when making investment decisions. The findings show that the level of dynamic connectedness between Islamic and conventional markets increased to a similar degree during the period of political, economic and policy events. In addition, there was a change in the receiver or transmitter positions of the markets. This result does not support the view that Islamic markets are safe havens.

1.Literature Review

Islamic finance, which has become one of the significant sources of the global financial system, has become an important research topic in the literature. The volume it has reached, its probability of growth and its relatively low level of risk compared to other financial products have led to the need for a detailed market analysis. If we briefly mention these study topics, Najeeb, et al. (2017) and Pirgaip et al. (2021) highlighted that Islamic financial markets offer risk management and portfolio diversification to investors, especially for conventional bond investors; Kontesa (2023) pointed out in terms of risk management, Sharia-compliant debt financing will provide advantages in stock price collapse risk management. Moreover, the effects of Islamic events (such as Ramadan Meelad ul Nabi, Ashura and Eid al-Adha) on Islamic and conventional stock markets have been investigated by various studies (Almaida et al., 2024; Shah et al., 2017; Wasiuzzaman, 2018). The impact of the market on macroeconomic factors such as economic growth (Abduh & Omar, 2012; Johnson, 2013; Nawaz et al. 2019), interest rate (Nahar & Sarker, 2016; Nursyamsiah, 2018), sustainable development (Hassan, 2014), risk factors (Shahzad et al., 2017), exchange rate, and inflation (Rifai et al., 2017; Widarjono, 2018; Abusharbeh, 2020) have been assessed, and it has been declared that these examinations should be taken into account when making investment decisions.

The interconnectedness/interaction between conventional and Islamic equity markets is a hot topic in the literature. These studies are detailed in this section as the basis per this study. Abu Bakar and Masih (2014) tested the link between the six major international stock markets:

Europe, the United States, Japan, the United Kingdom, Malaysia, and China and international Islamic stock using wavelet time-scale decomposition analysis. This study finds that volatility and co-movement among stock indices are higher and more volatile during financial crises and that there is bidirectional causality between the Islamic index and other international indices. In a similar study, Saiti et al. (2016) tested the extent of contagion for 18 indices of conventional and Shari'ah-compliant stocks using wavelet analysis, specifically observing crisis periods. The results show that Sharia-compliant indices mostly show no evidence of contagion (except during crisis periods). Umar and Suleman (2017) analyzed the interdependence between Islamic and conventional stocks in the US, Japan, and the UK using multivariate VAR-EGARCH. They found support for the divergence hypothesis in the post-crisis period. Shahzad et al. (2017) - similar to Umar and Suleman (2017)-examined the global Islamic stock market, including three main conventional national stock markets (the US, Japan, and the UK), using a VAR-based spillover index approach. Strong interconnectedness is observed between the global Islamic and conventional stock markets. Majdoub and Sassi (2017) examined the volatility spillovers between Asian (India, Thailand, Malaysia, Korea and Indonesia) and China Islamic stock markets using the VARMA-BEKK-AGARCH model. Significant negative and positive return spillovers from China to the Asian Islamic equity market and bidirectional volatility spillovers between China, Korea, and Thailand. It is concluded that the long-term volatility spillover effect from China to India, Indonesia, and Korea's Islamic stock markets is not persistent. Anas et al. (2020) examined region-wise (the Americas, Europe, Asia and Africa) the divergence and integration between emerging markets' Islamic and conventional stock returns. They developed using the daily wavelet and ADCC-based model. This study finds that all regions developed and emerging conventional and Islamic equity markets are highly positively correlated, and the divergence hypothesis is rejected. Using the TVP-VAR method, Mandaci and Cagli (2021) examined the interconnectedness of Middle East and North Africa (MENA) countries with Islamic and conventional markets. They supported the hypothesis of separating Islamic equity markets from conventional equity markets. Examining the interconnectedness between Islamic markets and country stock markets using the TVP-VAR model, Bossman et al. (2022) sampled 17 Islamic country stock market indices (Bahrain, India, Bangladesh, Malaysia, Kazakhstan, Indonesia, Pakistan, Iraq, Egypt, Kuwait, Jordan, Oman, Qatar, Palestine, United Arab Emirates (UAE), Morocco and Saudi Arabia) and stock market indices of G7 countries (Canada, France, Germany, Italy, Japan, UK, and the USA). The study found that Islamic markets are less (more) correlated with conventional markets during normal (stressed) trading periods. Smolo et al. (2022) investigated the dynamic interconnectedness and volatility spillovers between Islamic and conventional stock markets in the BRICS and Türkiye, utilizing the Diebold&Yilmaz Connectedness Index and the Barunik&Krehlik Frequency Connectedness Indexes. This study found that Islamic equities are more likely to be in the "transmitter" position and relatively less likely to be in the "receiver" position than conventional equities. The study also observed that the co-movement between BRICS+T countries increased during the COVID-19 and Global Financial Crisis, but this effect was weaker for Islamic stocks. Mensi et al. (2023) examined the multiscale spillovers between BRICS country stock markets, the Dow Jones Sukuk index and the Dow Jones Islamic stock index using multivariate and bivariate wavelet approaches. This study concludes that, in the long run, the Islamic stock market is integrated with the BRICS

stock markets, reducing hedging gains. Sahabuddin et al. (2023) utilized multivariate GARCH multiscale maximal overlap discrete wavelet transform (MODWT) approaches to investigate the dynamic conditional correlation and volatility spillovers between Islamic and conventional equity markets in developed (US, UK and Japan) and emerging (Malaysia, Indonesia and China) countries. This study finds that Islamic and conventional markets move together in the long run and exhibit time-varying volatility and dynamic conditional correlation. In contrast, volatility movements change due to financial crises. Naeem et al. (2024), on which we base our study, examined the dynamic interconnectedness between conventional and Islamic stock markets in the GCC economies using the TVP-VAR method. This study finds that the interconnectedness of conventional and Islamic equities increased during the crisis period, that both markets behaved similarly, and that they did not offer diversification for hedging.

To encapsulate previous studies, dynamic connectedness in both markets varies by country, except during crisis periods; as a common conclusion: COVID-19 (Smolo et al., 2022; Bossman et al., 2022) and financial crises (Abu Bakar & Masih, 2014; Saiti et al., 2016; Umar & Suleman, 2017; Smolo et al., 2022; Sahabuddin et al., 2023). As a result of these results, this study has emerged to guide investors in determining whether Islamic markets act similarly to conventional markets and whether they are related or not. Different from the literature, for the GCC countries, the study aims to determine the level of dynamic connectedness between the markets and to evaluate the findings in the context of political, economic and policy events that took place during the period of increased connectedness. To this purpose, the advantages of the TVP-VAR model can be used to identify the behavior of both markets during crisis periods.

2. Methodology

This section provides an explanation of the methodology and data set used in the study, along with a statement on ethics.

2.1. Time-Varying Parameter (TVP-VAR) Model

The TVP-VAR model was first introduced in macroeconometrics by Primiceri (2005). Diebold and Yilmaz (2012, 2014) developed the connectedness approach using variance decompositions to dynamically measure spillovers. Antonakakis and Gabauer (2017, 2020) extended the TVP-VAR connectedness methodology by incorporating Kalman filter estimation to allow for time-varying variance-covariance matrices. Diebold and Yilmaz (2009) used a Cholesky-type VAR method to investigate whether the ordering of variables changes the results and the interrelationship of variables. The authors also presented the concept of connectedness and ways of measuring connectedness in their 2014 study (Antonakakis et al., 2020: 2).

The proposed method extends the connectedness approach by varying the variance-covariance matrix through Kalman filter estimation with forgetting factors. The TVP-VAR model is expressed by the following equations (Antonakakis et al., 2020: 3-7):

$$y_t = K_t z_{t-1} + \varepsilon_t \qquad \varepsilon_t \mid \Omega_{t-1} \sim N(0, \Sigma_t). \tag{1}$$

$$vec(K_t) = vec(K_{t-1}) + \xi_t \quad \xi_t \mid \Omega_{t-1} \sim N(0, \Xi_t), \tag{2}$$

$$z_{t-1} = \begin{pmatrix} y_{t-1} \\ y_{t-2} \\ \vdots \\ y_{t-p} \end{pmatrix} \qquad K_t' = \begin{pmatrix} K_{1t} \\ K_{2t} \\ \vdots \\ K_{pt} \end{pmatrix}$$

n the equation, Ω_{t-1} represents the information up to t-1, while y_t and z_{t-1} describe the m × 1 and mp × 1 vectors. K_t and K_{it} represent m × mp and m × m dimensional matrices, respectively. ε_t and ξ_t are m × 1 vector and m^2p × 1 dimensional matrix, respectively, and time-varying variance-covariance matrices Σ_t and Ξ_t are m × m and m^2p × m^2p dimensional matrices. Vec (K_t) is the vector form of K_t, which is a vector of dimension m^2p × 1. Koop et al. (1996) used time-varying coefficients and time-varying variance-covariance matrices based on generalized impulse-response functions (GIRF) and generalized forecast error variance decompositions (GFEVD), according to Pesaran and Shin (1998). For this purpose, the TVP-VAR model is transformed into a vector moving average (VMA) in accordance with Wold's representation theorem.

$$y_t = J'(D_t(z_{t-2} + \eta_{t-1}) + \eta_t \tag{3}$$

$$= J'(D_t \, (D \, (z_{t-3} + \eta_{t-2}) + \eta_{t-1}) + \eta_t \tag{4}$$

$$\vdots$$

$$= J'[D_t^{k-1} z_{t-k-1} + \sum_{j=0}^{k} D_t^j \, \eta_{t-j}] \tag{5}$$

$$D_t = \begin{pmatrix} K_t \\ I_{m(p-1)} & 0_{m(p-1) \times m} \end{pmatrix} \tag{6}$$

In the equations above, Dt is an mp × mp dimensional matrix, ηt is an mp × 1 dimensional vector, and J represents an mp × m dimensional matrix.

The process of taking the limit when approaching k is formulated as follows:

$$y_t = \lim_{k \to \infty} J' \, (D_t^{k-1} z_{t-k-1} + \sum_{j=0}^{k} D_t^j \, \eta_{t-j}) = \sum_{j=0}^{\infty} J' \, D_t^j \eta_{t-j} , \tag{7}$$

$$y_t = \sum_{j=0}^{\infty} J' \, D_t^j J \varepsilon_{-j} \qquad B_{jt} = J' D_t^j J, \quad j{=}0,1,\dots \tag{8}$$

B_{jt} denotes an m × m dimensional matrix.

Rs $\Psi_{ij,t}$ (F) represent responses of all j variables following a shock to the variable i. Because it is not a structural model, it calculates the differences between an H-step-ahead forecast when variable i is and is not a shock. The resulting difference is attributed to the shock in variable i, and the process proceeds as follows:

$$GIRF_t \, (F, \delta_{j,t}, \Omega_{t-1}) = E \, (y_t + F | e_j = \delta_{j,t}, \Omega_{t-1}) - E(y_t + J | \Omega_{t-1}) \tag{9}$$

$$\Psi_{j,t}(F) = \frac{B_{F,t} \, \Sigma_t \, e_j}{\sqrt{\Sigma_{jj,t}}} \frac{\delta_{j,t}}{\sqrt{\Sigma_{jj,t}}} \qquad \delta_{j,t} = \sqrt{\Sigma_{jj,t}} \tag{10}$$

$$\Psi_{j,t}(F) = \Sigma_{jj,t}^{-\frac{1}{2}} B_{F,t} \, \Sigma_t \, e_j \tag{11}$$

In the equation, e_j is an m × 1 selection vector, which is unity at position E and zero otherwise. In turn, it calculates the GFEVD'yi ($\widetilde{\varphi_{ij,t}}$ (F)), which expresses the pairwise dependence from j to i and shows the effect of variable j on variable i in terms of the estimation error variance share, using the following equation:

$$\widetilde{\varphi_{ij,t}} \ (F) = \frac{\Sigma_{t-1}^{F-1} \psi_{ij,t}^2}{\Sigma_{j=1}^m \Sigma_{t-1}^{F-1} \psi_{ij,t}^2} \tag{12}$$

When $\Sigma_{i,j=1,i\neq j}^m \ \widetilde{\varphi_{ij,t}}(F)=1 \ and \ \Sigma_{i,j=1}^m \ \widetilde{\varphi_{ij,t}}(F)= m$, the denominator represents the cumulative effect of all shocks, and the numerator explains the cumulative effect of one shock on variable i. Using the GFEVD, the total connectedness index is expressed by the following equation:

$$C_t \ (F) = \frac{\Sigma_{i,j=1,i\neq j}^m \ \widetilde{\varphi_{ij,t}(F)}}{\Sigma_{i,j=1}^m \ \widetilde{\varphi_{ij,t}}(F)} * 100 = \frac{\Sigma_{i,j=1,i\neq j}^m \ \widetilde{\varphi_{ij,t}} \ (F)}{m} * 100 \tag{13}$$

Connectedness is defined as the propagation of a shock from one variable to another variable. First, the variable i transmits its shock to all other j variables called aggregate directional connectedness, which is represented by the following formula:

$$C_{i\rightarrow j,t} \ (F) = \frac{\Sigma_{i,j=1,i\neq j}^m \ \widetilde{\varphi_{ij,t}} \ (F)}{\Sigma_{i,j=1}^m \ \widetilde{\varphi_{ij,t}} \ (F)} * 100 \tag{14}$$

Second, the directional connectedness variable from j variables, which is the total directional connectedness from the others, is defined as follows:

$$C_{i\rightarrow j,t} \ (F) = \frac{\Sigma_{i,j=1,i\neq j}^m \ \widetilde{\varphi_{ij,t}} \ (F)}{\Sigma_{i,j=1}^m \ \widetilde{\varphi_{ij,t}} \ (F)} * 100 \tag{15}$$

Finally, the net total directional connectedness is obtained by subtracting the total directional connectedness to others from the total directional connectedness analyzed. This is explained as the impact variable of the variable "i" in the analysis.

$$C_{i,t} = C_{i\rightarrow j,t} \ (F) - C_{i\rightarrow j,t}(F) \tag{16}$$

If $C_{i,t}$ is positive, then variable i is influenced more than the others in the network. If $C_{i,t}$ is negative, then variable i is driven by the network.

By combining the TVP-VAR connectivity framework with the spectral representation of variance decompositions offered by the BK-18 model, we can explore the connectedness between variables of variables of interest in the frequency domain. Moreover, this analysis further extends the analysis to capture connectedness from both short-term and medium-to-long-term horizons by using the frequency response function function $\varsigma(e^{-ns}) = \sum_{f=0}^{\infty} \varepsilon^{-nsf} \varsigma_f$. In the equation, n is defined as the square root of $\sqrt{-1}$, representing the complex unit, and s symbolizes the frequency. This provides the basis for analyzing the spectral density of r_t at a given frequency v. The approach allows the spectral density of r_t to be assessed at various frequencies, facilitating the computation of frequency-based GFEVDs. These are normalized for a refined analysis of spillover effects in specific frequency ranges (Dammak et al., 2024: 10-12). r_t spectral density at frequency s is conceptualized as the Fourier transform of an infinite order Time-Varying Parameter Vector Moving Average model ($TVP - VMA(\infty)$):

$$Q_r(s) = \sum_{f=-\infty}^{\infty} E(r_t r_{t-f}') e^{-nsf} = \varsigma(e^{-nsf}) \sum_t \varsigma'(e^{+nsf}) \tag{17}$$

Then, the frequency-based GFEVD is calculated. To ensure correct interpretation, this requires normalization, which results from applying the following equation:

$$\phi_{npt}(s) = \frac{(\Sigma_t)_{pp}^{-1} \left| \sum_{f=0}^{\infty} \left(\varsigma(e^{-nsf}) \Sigma_t \right)_{npt} \right|^2}{\sum_{f=0}^{\infty} \left(\varsigma(e^{-nsf}) \Sigma_t \varsigma(e^{nsf})\right)_{np}} \tag{18}$$

$$\tilde{\phi}_{ijt}(\omega) = \frac{\phi_{npt}(s)}{\sum_{i=1}^{K} \phi_{npt}(s)} \tag{19}$$

The term $\tilde{\phi}_{npt}(s)$ stands for the section of the spectrum of variable n's at a given frequency s that can be attributed to the shocks originating from variable p. For this study, data is collected on all frequencies within a given range to assess short- and medium-long term connectedness effects and aggregate them to provide a comprehensive assessment.

$$w = (a, b): a, b \in (-\pi, \pi), \quad a < b \tag{20}$$

$$\tilde{\phi}_{npt}(w) = \int_a^b \tilde{\phi}_{npt}(s) ws \tag{21}$$

Finally, within this analysis, we calculate a couple of key indices: the net connectedness index (NET) and the total connectedness index (TOTAL). These calculations are crucial for studying the degree of connectedness in a given frequency range, denoted z.

$$NET_{nt}(w) = TO_{nt}(w) - FROM_{nt}(w) \tag{22}$$

$$\text{TCI}_t(w) = K^{-1} \sum_{n=1}^{K} TO_{nt}(w) = K^{-1} \sum_{n=1}^{K} FROM_{nt}(w) \tag{23}$$

2.2. Data Set

By conducting this study, Islamic and conventional stocks of Gulf Cooperation Council (GCC) economies (Bahrain, Oman, Kuwait, Saudi Arabia, Qatar and the UAE) are the indices calculated by S&P. 23.06.2015- 8.08.2024 period daily data were used, and all variables were converted into return series with the following formula:

$r_t = \ln(P_t / P_{t-1})$ formula was used.

In this formula, r_t is the return of the series at the time, the closing price of the index at the time P_t, the closing price of the index at the time of P_{t-1} denotes t = 1..., T.

The descriptions of the variables transformed into return series are presented in Table 1, and time path graphs are presented in Figure 1. All data were synchronized to ensure date unity.

Table 1: Descriptions of the Variables

Islamic			Conventional		
	BAHSH	S&P Bahrain Shariah Domestic price index		BAH	S&P Bahrain BMI
	QATARSH	S&P Qatar Shariah Domestic price index		QATAR	S&P Qatar BMI

KU WSH	S&P Kuwait Shariah Domestic price index		KU W	S&P Kuwait BMI	
OMS H	S&P Oman BMI Shariah		OM AN	S&P Oman BMI	
SAA RSH	S&P Saudi Arabia Shariah Domestic price index		SAA R	S&P Saudi Arabia BMI	
UAE SH	S&P U.A.E. Shariah Domestic price index		UAE	S&P UAE Domestic Index	

Note(s): The variables were obtained from www.spglobal.com.

Figure 1: Time Series of Variables

Source(s): Authors' calculations.

When the time path graphs of the logarithmized return series are examined, all variables experienced intense waves in March 2020 with the declaration of COVID-19 as a pandemic by the World Health Organization. Fluctuations indicate that the global health crisis has caused turbulence in Islamic and conventional equity markets. A similar situation occurred during the Russian-Ukrainian war in February 2022 and the Israeli-Palestinian war in October 2023. Fluctuations in such periods make it necessary to examine the existence of dynamic connectedness between series.

3. Research Findings

The study focuses on assessing the aggregate dynamic connectedness and spillover relationship between Islamic and conventional stocks in GCC countries through the TVP-VAR model. The results derived from the analysis are outlined in this section. The descriptive statistics of the variables are presented in Table 2, and the correlation matrix is presented in Table 3.

Table 2: Descriptive Statistics

		Mean	Std.Dev.	Skewness	Ex. Kur.	JB	ERS	Q(10)	Q² (10)
Islamic	**BAHSH**	0.000204	0.014443	-0.125**	14.279***	19197.515 ***	-17.59***	19.441***	147.973***
	QATARSH	-0.00012	0.010254	-1.133***	14.346***	19855.153 ***	-18.60***	22.951***	43.113***
	KUWSH	0.000254	0.010231	-5.216***	101.566***	981213.61 9***	-8.326***	73.861***	185.393***
	OMANSH	-0.00031	0.007637	-0.770***	12.391***	14675.305 ***	-14.57***	14.739***	43.624***
	SAARSH	0.000123	0.010879	-1.493***	18.780***	34037.395 ***	-18.04***	24.302***	286.078***
	UAESH	0.000082	0.010943	-1.927***	35.690***	121292.98 2***	-2.209**	18.709***	538.800***
Conventional	**BAH**	0.000319	0.008332	-2.357***	50.662***	243678.23 7***	-10.33***	40.367***	71.696***
	QATAR	-0.00011	0.010340	-1.421***	19.060***	34954.278 ***	-20.11***	19.366***	51.500***
	KUW	0.000174	0.009604	-5.839***	124.187***	1464470.4 2***	-12.59***	64.917***	123.228***
	OMAN	-0.00005	0.006354	-1.626***	31.201***	92626.960 ***	-18.00***	53.452***	12.787**
	SAAR	0.000116	0.011378	-2.393***	33.280***	106403.47 8***	-17.33***	46.019***	107.306***
	UAE	0.000031	0.010928	-2.020***	35.884***	122735.03 6***	-4.580***	17.691***	605.816***

Note(s): The number of observations for each stock market is 2,260. *** indicates significance at 1%, ** indicates significance at 5%; Skewness test: D'Agostino (1970); Kurtosis test: Anscombe & Glynn (1983); JB normality test: Jarque & Bera (1980); ERS unit-root test: Elliott et al. (1996); Q (10) and Q^2 (10) weighted Portmanteau test statistics: Fisher & Gallagher (2012).

Based on the descriptive statistics results in Table 2, it is determined that all of the series are not normally distributed (skewness≠0; kurtosis≠3). There is a multicollinearity (autocorrelation) problem in the standard errors (Q) and squares of the standard errors (Q2) of all series. The presence of autocorrelation in the squares of the errors of the series indicates that the variance is changing. The results of the ERS test indicate that the existence of a unit root is rejected.

Table 3: Correlation Matrix

		BAHSH	QATARSH	KUWSH	OMANSH	SAARSH	UAESH
Islamic	**BAHSH**	1	0.23477	0.34076	0.14459	0.21728	0.40643
		-	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
	QATARSH	0.23477	1	0.33289	0.22178	0.29447	0.41000
		(0.0000)	-	(0.0000)	(0.0000)	(0.0000)	(0.0000)
	KUWSH	0.34076	0.33289	1	0.20534	0.26780	0.43770
		(0.0000)	(0.0000)	-	(0.0000)	(0.0000)	(0.0000)
	OMANSH	0.14459	0.22178	0.20534	1	0.11180	0.18961
		(0.0000)	(0.0000)	(0.0000)	-	(0.0000)	(0.0000)
	SAARSH	0.21728	0.29447	0.26780	0.11180	1	0.29528
		(0.0000)	(0.0000)	(0.0000)	(0.0000)	-	(0.0000)
	UAESH	0.40643	0.41000	0.43770	0.18961	0.29328	1
		(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	-

		BAH	QATAR	KUW	OMAN	SAAR	UAE
Conventional	**BAH**	1	0.22956	0.45291	0.21175	0.27763	0.35249
		-	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
	QATAR	0.22956	1	0.33649	0.27517	0.44365	0.48329
		(0.0000)	-	(0.0000)	(0.0000)	(0.0000)	(0.0000)
	KUW	0.45291	0.33649	1	0.30350	0.42023	0.45557
		(0.0000)	(0.0000)	-	(0.0000)	(0.0000)	(0.0000)
	OMAN	0.21175	0.27517	0.30350	1	0.25413	0.28758
		(0.0000)	(0.0000)	(0.0000)	-	(0.0000)	(0.0000)
	SAAR	0.27763	0.44365	0.42023	0.25413	1	0.51326
		(0.0000)	(0.0000)	(0.0000)	(0.0000)	-	(0.0000)
	UAE	0.35249	0.48329	0.45557	0.28758	0.51326	1
		(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	-

Table 3 presents the correlation matrix between the series. All series are positively correlated. The UAE Islamic market is highly correlated with other Islamic markets, except OMANSH. In the conventional markets, Bah has a higher correlation with QATAR, SAAR, and UAE with BAH, SAAR, and UAE with KUW. In comparison, OMAN has a higher correlation with SAAR, QATAR, KUW, and UAE with KUW.

Table 4 presents the average dynamic connectedness among the series. In this table, the series in the row is the affected value, and the series in the column is the influencing value.

Table 4: Average Dynamic Connectedness

Islamic							
	BAHSH	**QATARSH**	**KUWSH**	**OMANSH**	**SAARSH**	**UAESH**	**FROM**
BAHSH	71.99	4.58	6.59	2.97	4.17	9.69	28.01
QATARSH	4.43	67.68	7.02	3.84	6.15	10.88	32.32
KUWSH	6.61	7.27	69.36	3.01	5.85	7.89	30.64
OMANSH	3.36	4.8	3.23	82.4	2.62	3.59	17.6
SAARSH	5.41	9.61	6.93	2.38	66.3	9.37	33.7
UAESH	8.94	10.29	7.21	2.93	5.73	64.91	35.09
TO	28.74	36.55	30.98	15.13	24.52	41.43	177.36
							TCI
NET	0.73	4.22	0.34	-2.47	-9.17	6.34	29.56
NPT	3	4	2	0	1	5	
Conventional							
	BAH	**QATAR**	**KUW**	**OMAN**	**SAAR**	**UAE**	**FROM**
BAH	69.18	4.76	12.05	3.34	4.79	5.87	30.82
QATAR	3.86	61.52	7.09	5.15	10.25	12.13	38.48
KUW	9.64	7.35	62.6	4.89	8.11	7.41	37.4
OMAN	3.53	6.39	5.4	76.56	4.25	3.87	23.44
SAAR	3.43	10.42	7.06	3.03	64	12.06	36
UAE	4.32	11.72	6.86	3.15	12.5	61.45	38.55
TO	24.78	40.65	38.46	19.56	39.91	41.34	204.69
							TCI
NET	-6.03	2.17	1.06	-3.89	3.91	2.79	34.12
NPT	1	4	2	0	4	4	

The total connectedness among all variables in terms of return variation in the Islamic markets of the GCC countries is 29.56%. Of the variation in BAHSH returns, 71.99% is explained by itself and 28.01% is explained by other indicators. In terms of influence percentages, 9.69% is explained by UAESH, 6.59% by KUWSH, 4.58% by QATARSH, 4.17% by SAARSH, and 2.97% by OMANSH.

Of the variation in QATARSH returns, 67.68% is explained by itself and 32.32% is explained by other indicators. According to the percentage of influence; 10.88% is explained by UAESH, 7.02% by KUWSH, 6.15% by SAARSH, 4.43% by BAHSH, and 3.84% by OMANSH.

While 69.36% of the change in KUWSH returns is explained by itself, 30.64% is explained by other indicators. In terms of influence percentages, 7.89% is explained by UAESH, 7.27% by QATARSH, 6.61% by BAHSH, 5.85% by SAARSH, and 3.01% by OMANSH.

While 82.4% of the change in OMANSH returns can be explained by itself, 17.6% can be explained by other indicators. In terms of influence percentages, 4.8% is explained by QATARSH, 3.59% by UAESH, 3.36% by BAHSH, 3.23% by KUWSH, and 2.62% by SAARSH.

66.3% of the change in SAARSH returns is explained by itself, whereas 33.7% is explained by other indicators. In terms of percentage of influence, 9.61% is explained by QATARSH, 9.37% by UAESH, 6.93% by KUWSH, 5.41% by BAHSH, and 2.38% by OMANSH.

Although 64.91% of the change in UAESH returns is explained by itself, 35.09% is explained by other indicators. In terms of influence percentages; 10.29% is explained by QATARSH, 8.94% by BAHSH, 7.21% by KUWSH, 5.73% by SAARSH, and 2.93% by OMANSH.

The total interconnectedness among all variables in terms of return variation in the conventional markets of the GCC countries is 34.12%. 69.18% of the variation in BAH returns are explained by itself, and 30.82% are explained by other indicators. In terms of influence percentages, 12.05% is explained by KUW, 5.87% by the UAE, 4.79% by SAAR, 4.76% by QATAR, and 3.34% by OMAN.

61.52% of the change in QATAR returns can be explained by itself, whereas 38.48% can be explained by other indicators. According to the percentage of influence; 12.13% is explained by the UAE, 10.25% by SAAR, 7.09% by KUW, 5.15% by OMAN, and 3.86% by BAH.

62.6% of the change in KUW returns can be explained by itself, and 37.4% can be explained by other indicators. According to the percentage of influence; 9.64 per cent is explained by BAH, 8.11 per cent by SAAR, 7.41 per cent by UAE, 7.35 per cent by QATAR, and 4.89 per cent by OMAN.

While 76.56% of the change in OMAN returns is explained by itself, 23.44% is explained by other indicators. According to their influence percentages; 6.39 per cent is explained by QATAR, 5.41% by KUW, 4.25% by SAAR, 3.87% by UAE, and 3.53% by BAH.

While 64% of the change in SAAR returns is explained by itself, 36% is explained by other indicators. According to their influence percentages; 12.06 percent is explained by the UAE, 10.42 percent by QATAR, 7.06 percent by KUW, 3.43 percent by BAH, and 3.03 percent by OMAN.

61.45% of the change in UAE returns is explained by itself, and 38.55% is explained by other indicators. According to the percentage of influence; 12.5 percent is explained by SAAR, 11.72 percent by QATAR, 6.8% by KUW, 4.32% by BAH, and 3.15% by OMAN.

When the net dynamic connectedness results are analyzed: In the Islamic markets of GCC countries, the series that transmit shocks the most are UAESH (6.34), followed by QATARSH (4.22), BAHSH (0.73) and KUWSH (0.34); while the series that absorb shocks are SAARSH (-9.17), OMANSH (-2.47). In the conventional markets of GCC countries, SAAR (3.91) is the most shock-e transmitting series, followed by UAE (2.79), QATAR (2.17), and KUW (1.06); while the shock-receiving series are BAH (-6.03), OMAN (-3.89).

**Table 5:** Average Dynamic Connectedness (The Short-Run & Long Run)

Islamic											
	BAHSH	QATARSH	KUWSH	OMANSH	SAARSH	UAESH	TO			Net	NPDC
BAHSH.1-5	63,24	3,77	5,72	3,02	4,74	7,89	25,14			0,55	2
QATARSH.1-5	3,95	58,62	6,08	4,20	8,44	9,11	31,78			3,61	4
KUWSH.1-5	5,82	6,08	59,23	2,85	6,16	6,44	27,36			0,96	3
OMANSH.1-5	2,61	3,40	2,60	71,70	2,07	2,61	13,29			-2,40	0
SAARSH.1-5	3,65	5,42	5,27	2,38	56,65	5,04	21,77			-7,90	1
UAESH.1-5	8,56	9,49	6,73	3,24	8,26	57,35	36,28			5,18	5
FROM.1-5	24,59	28,17	26,40	15,69	29,67	31,10	155,62	TCI		**25,94**	
BAHSH.5-Inf	8,57	0,47	1,03	0,47	0,72	0,85	3,54			-0,07	4
QATARSH.5-Inf	0,47	8,90	1,19	0,59	1,53	1,16	4,93			0,62	3
KUWSH.5-Inf	0,90	0,86	9,14	0,44	1,16	0,76	4,12			-1,11	1
OMANSH.5-Inf	0,34	0,52	0,41	10,18	0,29	0,32	1,88			-0,55	0
SAARSH.5-Inf	0,53	0,91	1,16	0,39	8,50	0,64	3,63			-1,55	2
UAESH.5-Inf	1,36	1,55	1,45	0,55	1,49	7,82	6,39			2,66	5
FROM.5-Inf	3,61	4,32	5,23	2,43	5,18	3,73	24,49	TCI		**4,08**	
Conventional											
	BAH	QATAR	KUW	OMAN	SAAR	UAE	TO			Net	NPDC
BAH.1-5	59,93	3,15	8,23	2,86	2,99	3,81	21,04			-6,64	0
QATAR.1-5	4,19	53,23	6,36	5,49	9,22	10,39	35,65			1,71	3
KUW.1-5	10,59	6,12	53,52	4,69	6,25	6,06	33,71			0,98	2
OMAN.1-5	3,11	4,61	4,43	65,96	2,70	2,90	17,74			-2,46	1
SAAR.1-5	4,49	9,26	7,22	3,82	56,55	10,78	35,57			3,57	4
UAE.1-5	5,30	10,80	6,48	3,35	10,83	53,68	36,76			2,84	5
FROM.1-5	27,68	33,95	32,72	20,21	32,00	33,93	180,48	TCI		**30,08**	
BAH.5-Inf	8,10	0,35	1,26	0,46	0,30	0,46	2,82			-1,47	1
QATAR.5-Inf	0,67	7,88	1,07	0,93	1,18	1,56	5,41			0,46	3
KUW.5-Inf	1,57	0,75	8,01	0,69	0,78	0,77	4,55			-1,20	1
OMAN.5-Inf	0,43	0,62	0,70	10,51	0,27	0,37	2,38			-0,95	1
SAAR.5-Inf	0,75	1,47	1,40	0,65	7,57	1,43	5,71			1,84	5

UAE.5-Inf	0,86	1,76	1,32	0,60	1,35	7,82	5,89		1,32	4
FROM.5-Inf	4,29	4,95	5,75	3,33	3,87	4,58	26,76	TCI	**4,46**	

Note(s): Results are based on a TVP-VAR model based generalized forecast error variance decomposition and its frequency spectral presentation by BK-18 approach.

Tablo 5 presents the short-run (1–5 traded days) and long-run (5-infinite days) components. From a frequency decomposition perspective, the connectedness between Islamic markets is driven by short-run transmission (25.94%) rather than long-run (4.08%). From a frequency decomposition perspective, the connectedness between the conventional markets is driven by short-run transmission (30.08%) rather than long-run (4.46%).

Figure 2: Total Dynamic Connectedness Structure (Islamic- Conventionel)
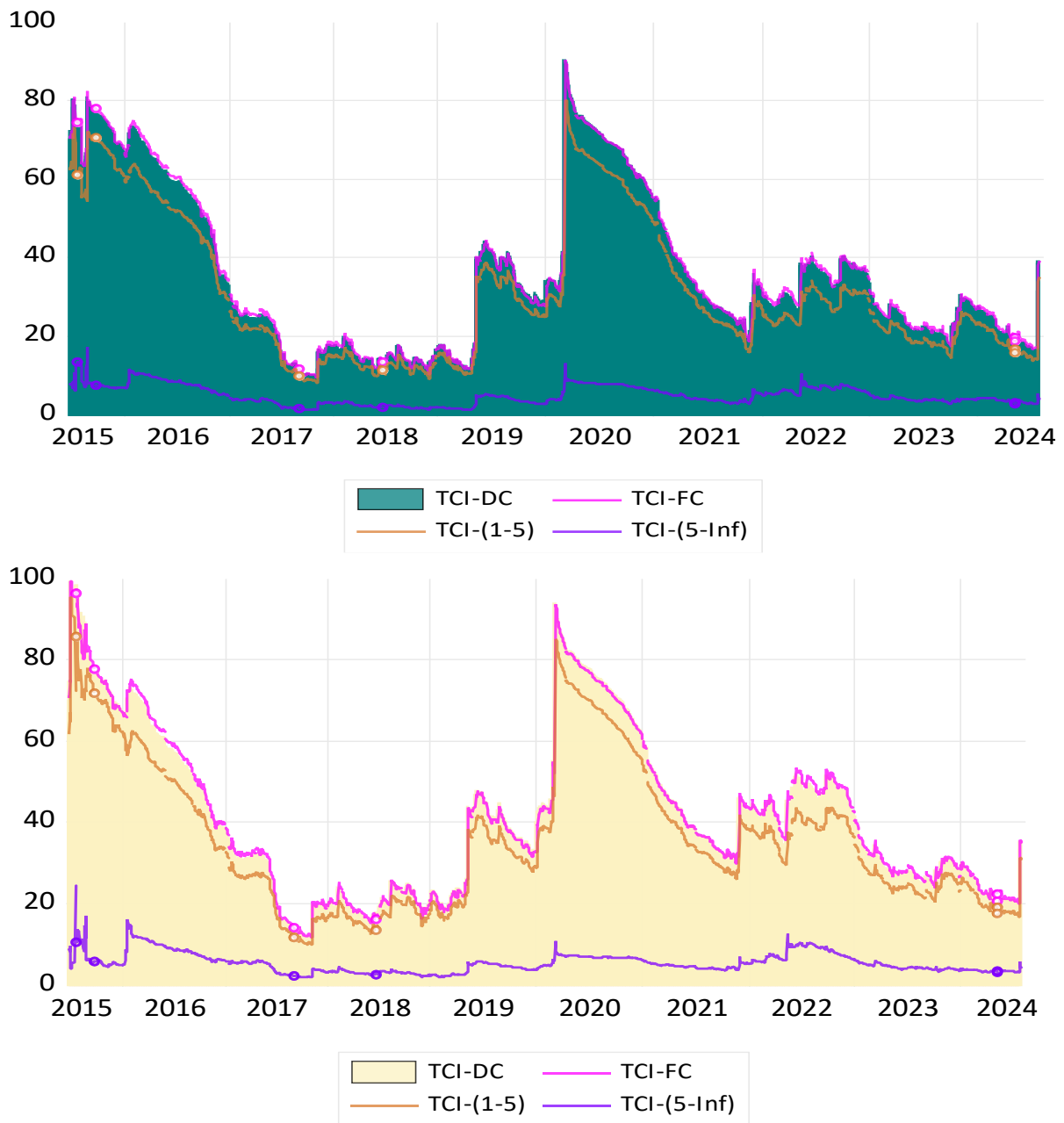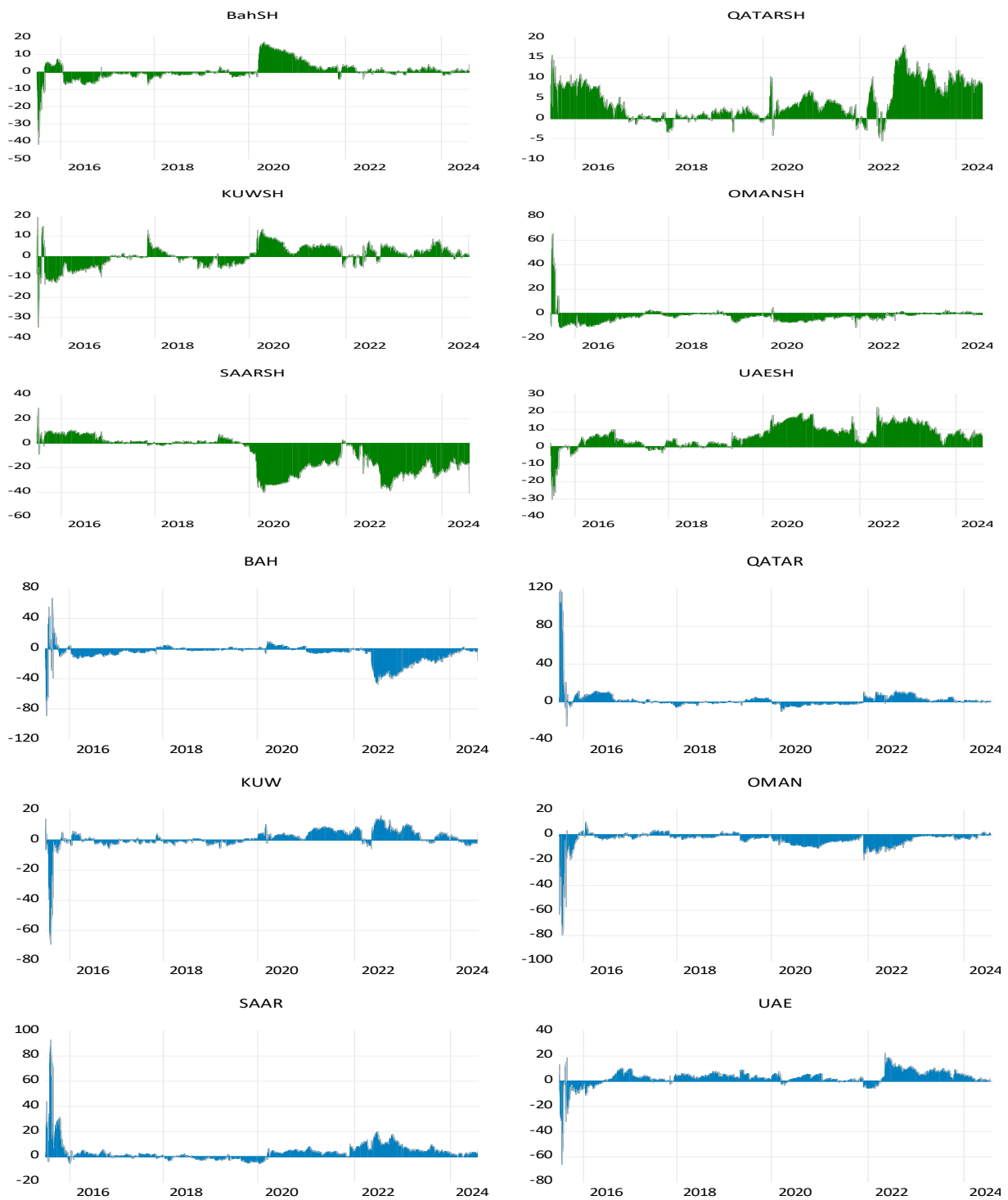

Source(s): Authors' calculations. The green graph shows the connectedness of Islamic markets and the yellow graph shows the connectedness of conventional markets.

Figure 2 illustrates the total dynamic connectedness (TCI-DC) structure of Islamic (green area and conventional markets. For investors with a short-term or long-term investment approach, it is important to know the level of connectedness in the analyzed markets. For this purpose, we also model short-term (frequencies in the period of 1-5 days (TCI-(1-5)) and long-term (frequencies in the period longer than 5 days (TCI-(5-Inf)) forecast horizons. With TCI-DC, we can observe periods when markets' total risk increases or decreases. As of the period analyzed, the average total connectedness of the Islamic markets of the GCC countries is 35.47, the lowest value is 9.27 (31.10.2017), and the highest value is 90.46 (10.03.2020). The average total

connectedness of Conventional markets is 40.93; the highest is 99.14 (2015-06-30), and the lowest is 11.09 (2017-10-31). From June 2015 to December 2016, connectedness was above average. It can be said that the oil crisis during this period increased connectedness. In this period, stock market indices declined, there was a flight to the US dollar, government expenditures decreased as oil income declined, which had a negative impact on banks' profitability and growth, and the safe-haven effect diminished. From early 2017 to April 2019, the level of connectedness was low. In May 2019, the percentage increased from 18.54 to 41.78. Four oil ships were attacked in the Strait of Hormuz during this period within 48 hours (Mengüç, 13 May 2019). The highest jump in interconnectedness levels in both markets was experienced in March 2020. Connectedness reached its highest value of 90.46 on March 10, 2020, when COVID-19 was declared a pandemic by the World Health Organization. For almost a year (between March 2020 and March 2021), Connectedness remained high due to the impact of the pandemic. During this period, Expo 2020 was postponed, schools were closed, and cases were seen in the royal family of Saudi Arabia; entrances and exits were banned in the cities of Riyadh, Mecca, and Medina, and large-scale labour migrations were experienced in these countries, where most of the workers were foreigners. Another period of increased connectedness is in February 2022. Another period of relatively high connectedness was the period of the Russian-Ukrainian war. Although there was a short fluctuation in this period due to global uncertainties, it can be said that Europe survived this period profitably as it was in search of oil and natural gas. As can be seen in the graph, the increase in connectedness lasted for a short period.

Regarding the decomposition of aggregate dynamic connectedness in the frequency domain, it shows that aggregate connectedness during the outbreak of the pandemic was mainly driven by the short-term component. This can be interpreted as shocks are realized and transmitted in a shorter period of time and investors' expectations can change instantaneously.

Figure 3: Net Total Directional Connectedness

Note(s): Lags = 1 (BIC). Forecast horizon of 10 days.

Source(s): Authors' calculations.

The Net Total Directional Connectedness illustrates how the positions of the series in receiving and spreading shocks change over time in response to shifting circumstances. When we look at the total over the period analyzed; in the Islamic markets of GCC countries, the series that

transmit shocks are UAES, QATARSH, BAHSH and KUWSH, while the series that receive shocks are SAARSH and OMANSH. In the conventional markets of GCC countries, the series that transmit shocks are SAAR, UAE, QATAR, and KUW, whereas the series that receive shocks are BAH and OMAN.

Figure 4: Net Pairwise Directional Connectedness
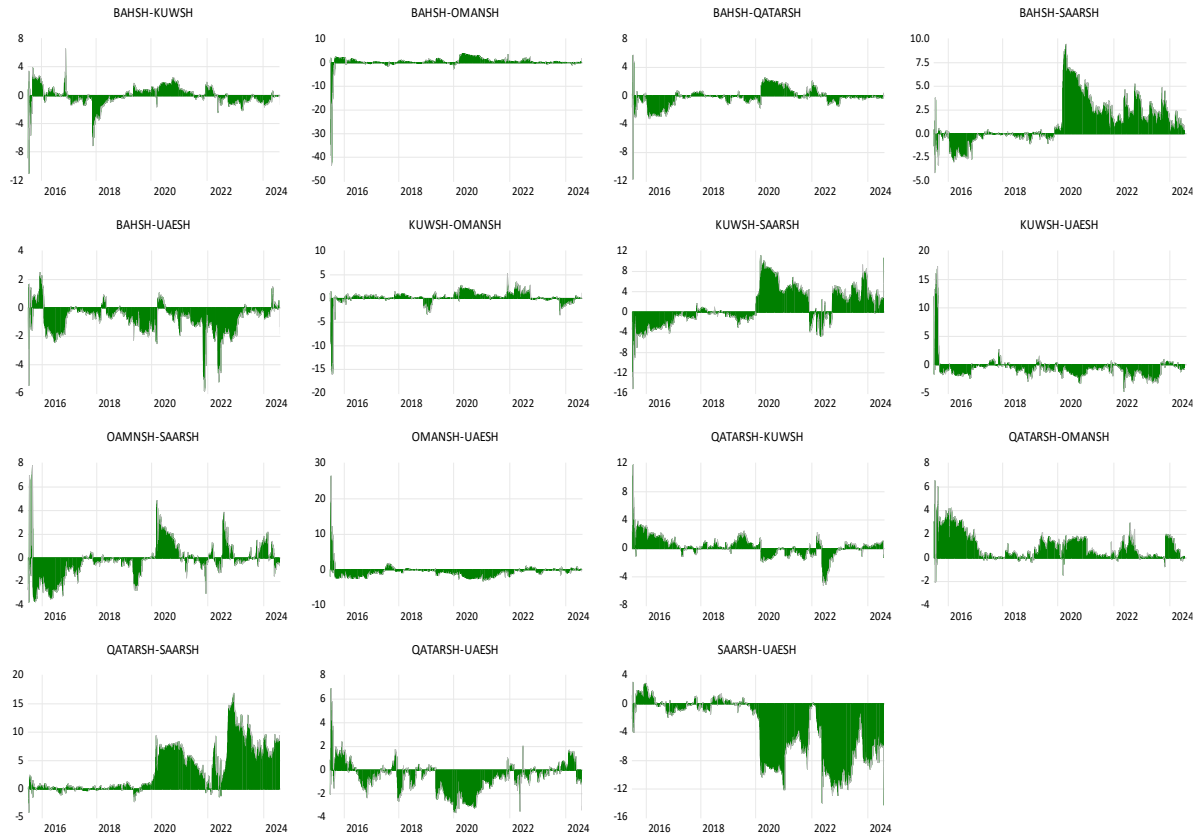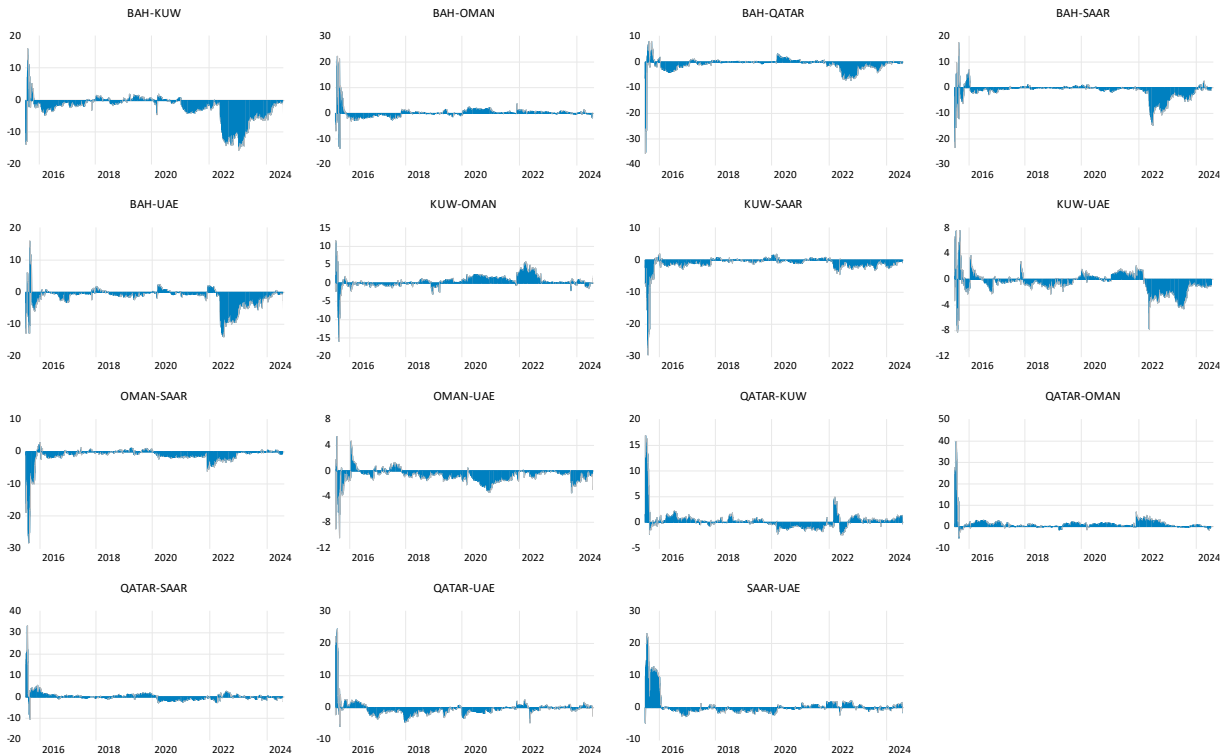
Figure 4 depicts the time-varying net total pair-wise connectedness between Islamic and conventional markets. A positive and negative y-axis value denote a transmitter and a negative y-axis value implies a receiver. Within the scope of the analysis period, the status of the bilateral series as shock recipients or transmitters changes over time. In general, the roles change during the 2015-2016 oil crisis period, the 2020 COVID-19 period, the February 2022 Russia-Ukraine war, and the October 2023 Israel-Palestine war period.

Figure 5: Net- Connectedness Network
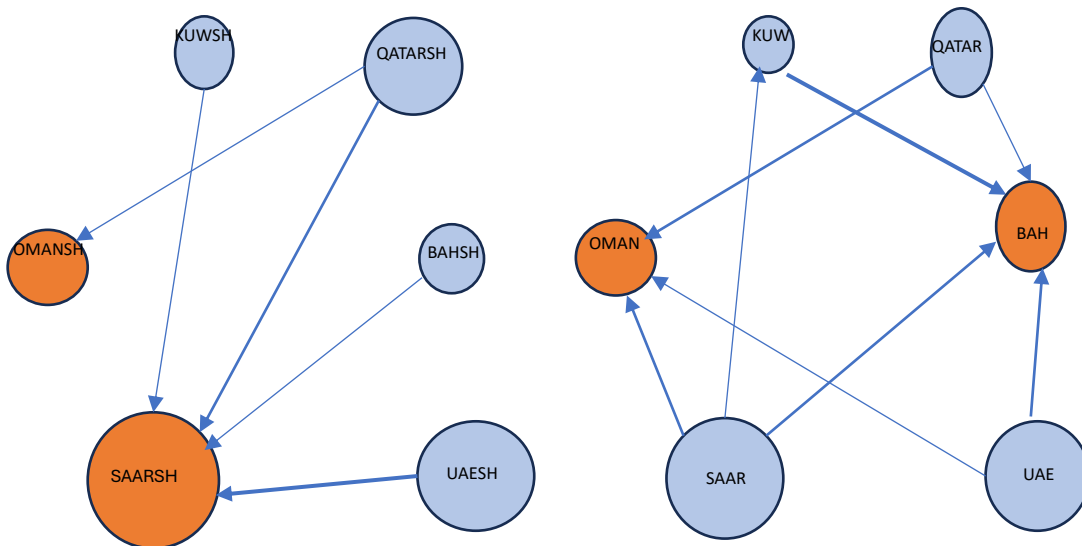
Note: Forecast horizon of 10 days; Lag = 1 (BIC)

Source (s): Authors'calculations.

Figure 5 shows the network connectedness among the series. In this figure, orange represents the net receivers, and blue represents the net transmitters in the series. In addition, while the thickness of the arrow indicates the link intensity, its direction is from the net transmitter to the net receiver. As a result of the analysis, OMANSH and SAARSH are net receivers, whereas UASH, BAHSH, QATARSH, and KUWSH are net transmitters in Islamic markets. In conventional markets, OMAN and BAH are net receivers, whereas SAAR, UAE, KUW, and QATAR are net transmitters.

Conclusion

This study analyzed the dynamic connectedness of the Islamic and conventional stock markets in the Gulf Cooperation Council (GCC) economies using the TVP-VAR model. The analysis determined the overall structure of dynamic connectedness. It also examined the connectedness levels of the markets during crisis periods and explored the events that occurred during these periods. Additionally, it identified the markets that received and transmitted shocks during the examined periods. The study also conducted additional analysis for investors with short-term and long-term investment approaches. In the analyzed markets, the degree of connectedness in the short and long term was analyzed to determine whether the market is a transmitter or a receiver of shocks. For this purpose, in this part of the study, the short-term (frequencies in the period of 1-5 days) and long-term (frequencies in the period longer than 5 days) forecast horizons were modeled. This procedure also allowed to observe whether the results are consistent across different model specifications. The average dynamic connectedness results showed that the Saudi Arabia Islamic market had the highest impact on the Bahrain and Qatar Islamic markets. The Saudi Arabia and Qatar Islamic markets had the highest impact on the Kuwait Islamic market. The Qatar Islamic market had the highest impact on the Oman and UAE Islamic markets. Finally, the UAE and Qatar Islamic markets had the highest impact on the Saudi Arabia Islamic market. The highest impact on Bahrain's conventional market is from Kuwait's conventional market, the highest impact on Qatar's conventional market is from the UAE and Saudi Arabian conventional markets, the highest impact on Kuwait's conventional market is from Bahrain conventional market, The highest impact on the Oman conventional market is observed from the Qatar conventional market, the highest impact on the Saudi Arabian conventional market is observed from the UAE and Qatar conventional markets, and the highest impact on the UAE conventional market is observed from the Saudi Arabian and Qatar conventional markets. Regarding the decomposition of aggregate dynamic connectedness in the frequency domain, it shows that aggregate connectedness during the outbreak of the pandemic was mainly driven by the short-term component. This can be interpreted as shocks are realized and transmitted in a shorter period of time and investors' expectations can change instantaneously.

According to the Net Connectedness Network Between Series results, the Oman and Saudi Arabia Islamic markets are net receivers of shocks. In conventional markets, the Oman and Bahrain markets are net shock receivers. The transmission of shocks to these markets from other markets may be because these markets have larger economies than other markets and are more dominant in the region. In general, during the 2015-2016 oil crisis period, the 2020 COVID-19 period, the February 2022 Russia-Ukraine war, and the October 2023 Israel-Palestine war periods, total connectedness increased, and there was a change in the receiver or transmitter positions of the market.

The aggregate dynamic connectedness results showed that the connectedness in Islamic and conventional markets, similar to Abu Bakar & Masih (2014), was the same during both decreasing and increasing risk periods. Conventional markets have a higher level of connectedness than Islamic markets (similar to the study of Smolo et al., 2022). However, this

level is not strong enough to support the argument that Islamic markets provide protection to investors and national economies in times of crisis and act as a safe haven (Kuşat, 2014; Şahin, 2018; Güçlü and Kılıç, 2020). The GCC stock markets are heavily dependent on the oil and gas sector, market liquidity and diversity are relatively low, global integration is high, and the interest-free structure is perceived as a risk by some investors, which may result in investors shifting to alternative safe havens. As a conclusion of the results, investors can invest in other financial instruments such as gold, silver, oil, foreign currency, Government Domestic Debt Securities, which are widely believed in the literature to act as safe havens and protect investors in times of crisis. Investors who want to invest in Shariah-compliant instruments can invest in sukuk, Islamic ETFs or defensive sectors.

The findings will help decision-makers understand how markets behave, particularly in times of crisis, and where market shocks originate or spread.

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Appendix

Robustness Test

Figure 6: Total Dynamic Connectedness Structure
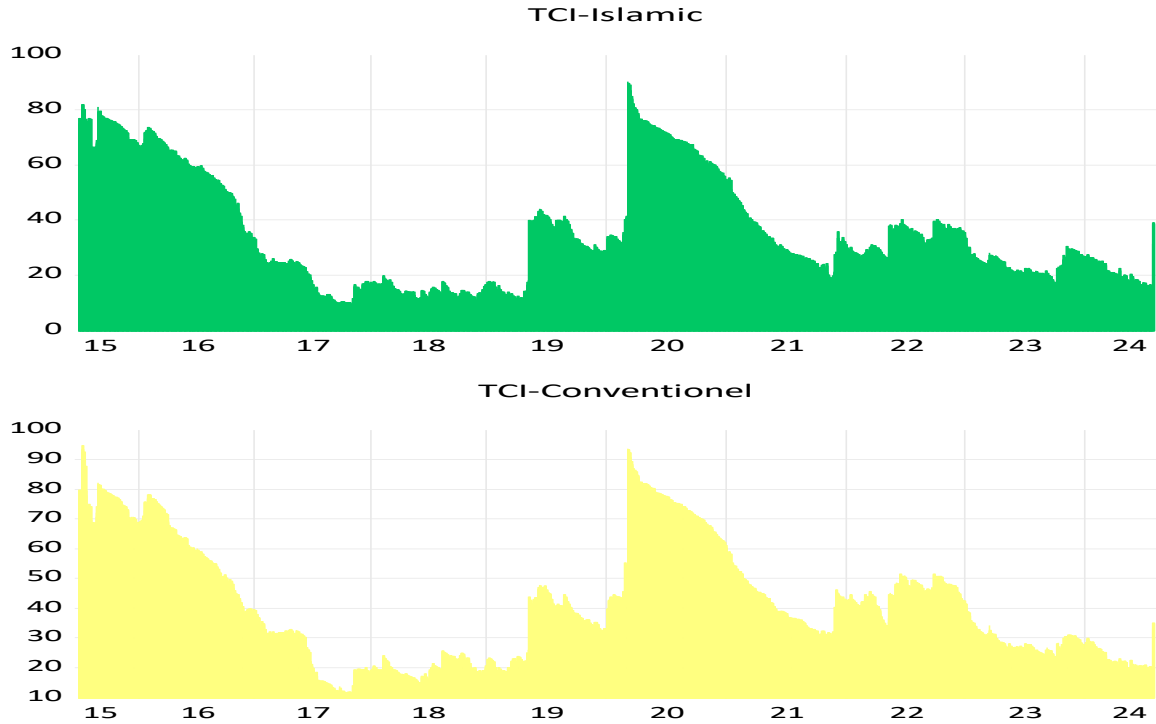
Note: Results are based on a TVP-VAR model with lag length of order one (BIC-3) and a 150-step-ahead generalized forecast error variance decomposition.

Figure 7: Net Total Directional Connectedness
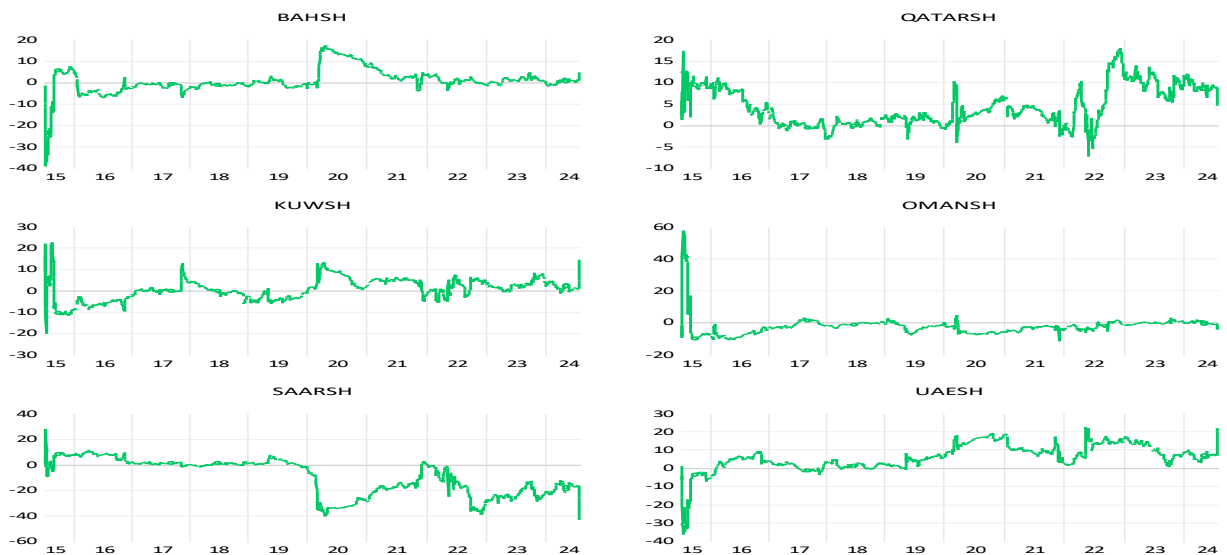
Note: Results are based on a TVP-VAR model with lag length of order one (BIC-3) and a 150-step-ahead generalized forecast error variance decomposition.

Figure 8: Net Pairwise Directional Connectedness
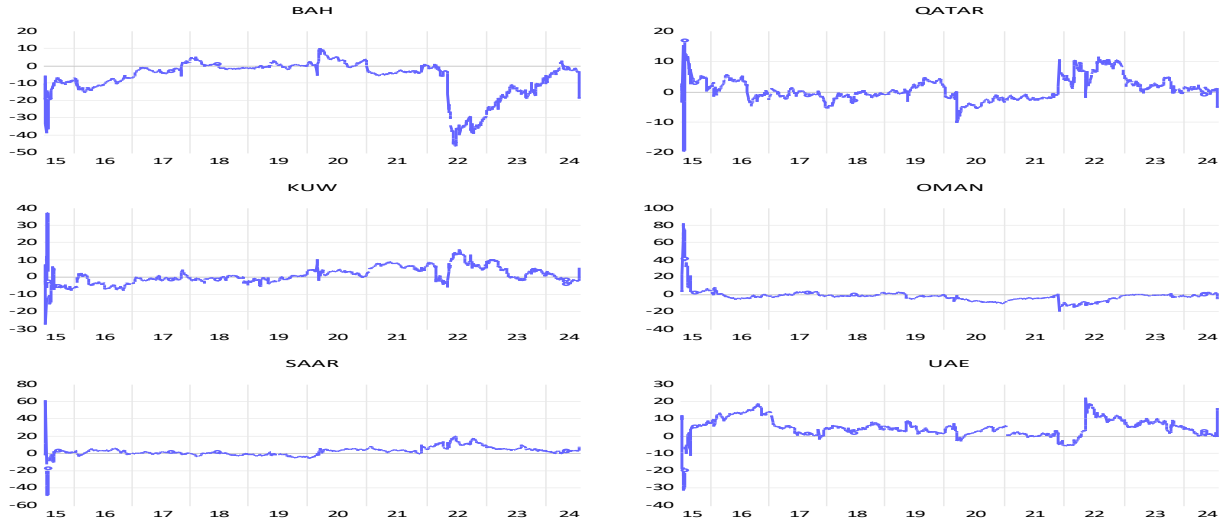
Note: Results are based on a TVP-VAR model with lag length of order one (BIC-3) and a 150-step-ahead generalized forecast error variance decomposition.
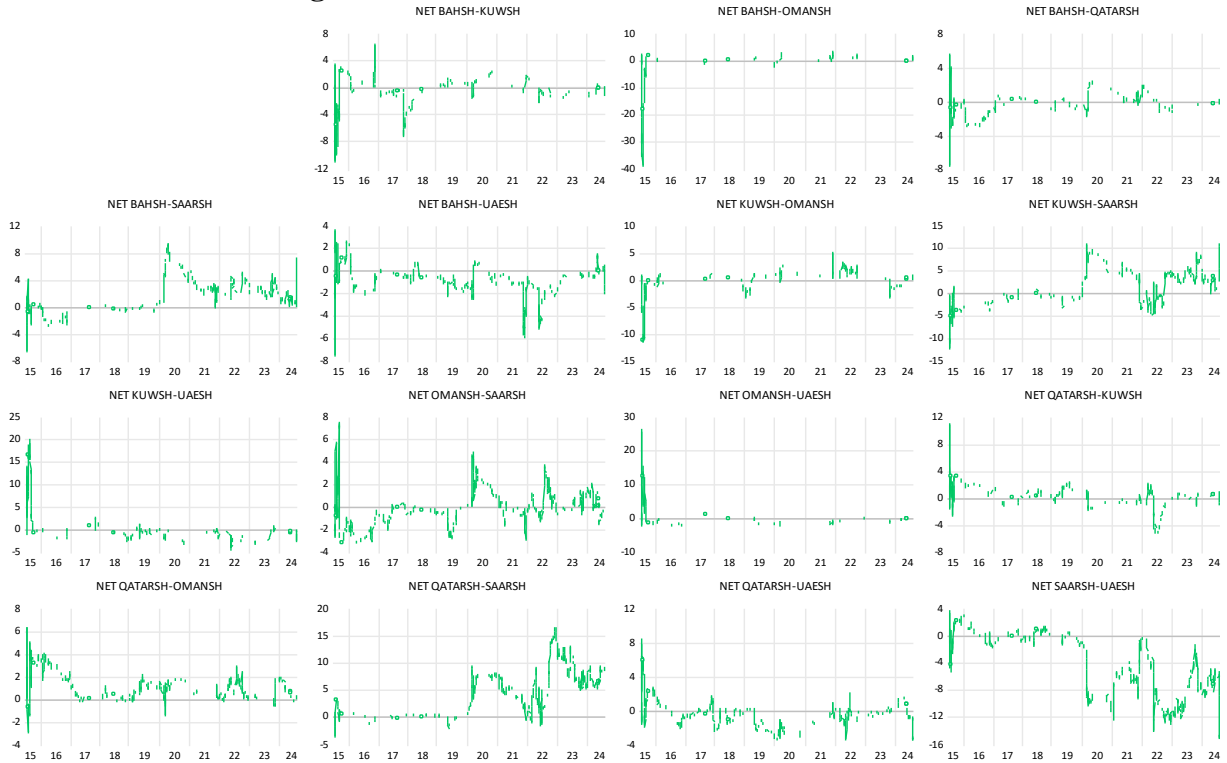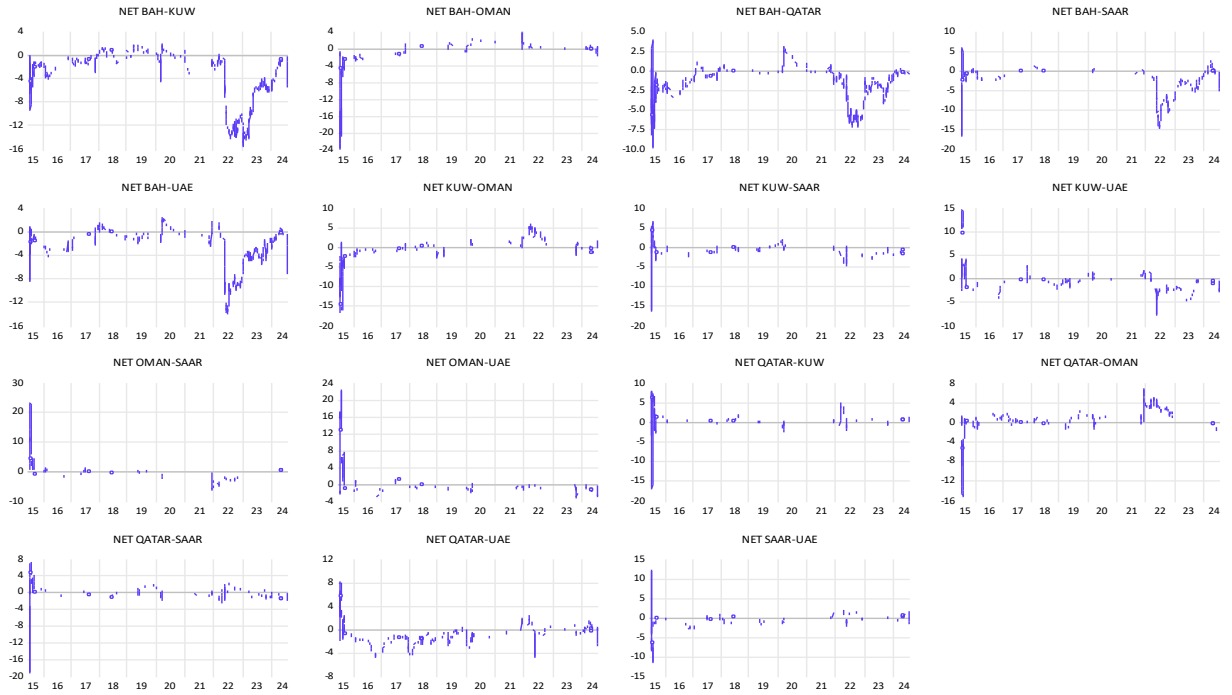
Cyprus Cash Waqfs Established Under Early British Rule (1878-1914)

Erken İngiliz İdaresinde (1878-1914) Kurulan Kıbrıs Para Vakıfları

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Abstract

This study examines the establishment and economic dimensions of cash waqfs in Cyprus during the early period of British administration. It focuses on the years between June 4, 1878, when the Ottoman Empire transferred the administration of Cyprus to the United Kingdom, and November 5, 1914, when the island was officially annexed by the British. The general approach of the article is to analyze economic and institutional aspects of cash waqfs established during the early British administration in Cyprus. By utilizing Cyprus archives and incorporating secondary sources, the research examines key trends, including the number of waqfs, endowed cash amounts, interest rates, and the transition from Ottoman to British currencies in waqf transactions. A comparative framework sheds light on the findings within the Ottoman-Cyprus and broader context, by highlighting historical and regional variations in waqf practices. The results demonstrate a significant increase in the establishment of cash waqfs during the British period compared to previous Ottoman rule, with approximately one-third of all waqfs being cash-based. The analysis identifies fluctuations in the amounts endowed and emphasizes the growing use of British currency over time, reflecting a shift in economic practices. In this regard, the Pound Substitution in Cyprus through waqfs has been illustrated by presenting monetary data in tabular form. Additionally, the study examines the ribḥ rates used as part of the operational mechanisms of waqfs. Accordingly, the ribḥ rates applied in Cyprus' cash waqfs were found to be lower compared to those observed in other Ottoman territories during the same period. This article contributes to the literature on Ottoman cash waqfs by providing an in-depth examination of their evolution and economic significance in Cyprus during a transformative historical period. The findings enhance our understanding of waqfs as financial instruments and their role in adapting to changing economic and administrative environments.

Jel Classifications: G21, G23, N25
Keywords: Cyprus, Cash Waqf, Interest, United Kingdom, British Rule

Öz

Bu çalışma, erken İngiliz yönetimi döneminde Kıbrıs'ta kurulan para vakıflarının kuruluş süreçlerini ve ekonomik boyutlarını incelemektedir. Araştırma, Osmanlı Devleti'nin 4 Haziran 1878'de Kıbrıs'ın idaresini Birleşik Krallık'a devretmesi ile başlayan ve 5 Kasım 1914'te adanın resmen Britanya tarafından ilhak edilmesiyle sona eren döneme odaklanmaktadır. Makalenin genel yaklaşımı, erken İngiliz yönetimi altında kurulan para vakıflarının ekonomik ve kurumsal yönlerini analiz etmeye dayanmaktadır. Kıbrıs arşivleri ile ikincil kaynakları kullanarak gerçekleştirilen bu çalışma, vakıf sayıları, vakfedilen nakit miktarları, ribḥ oranları ve vakıf işlemlerinde Osmanlı parasından İngiliz parasına geçiş gibi temel eğilimleri incelemektedir. Çalışmada karşılaştırmalı bir çerçeve sunularak, Osmanlı dönemi Kıbrıs'ı bağlamında ve daha farklı coğrafyalardaki perspektifte vakıf uygulamalarındaki tarihsel ve bölgesel farklılıklar vurgulanmaktadır. Elde edilen bulgular, Osmanlı yönetimiyle kıyaslandığında İngiliz döneminde para vakfı kurulma oranında bir artış yaşandığını ve toplam vakıfların yaklaşık üçte birinin para vakfı olduğunu ortaya koymaktadır. Analiz, vakfedilen miktarlarda dalgalanmalar olduğunu ve zaman içinde İngiliz para biriminin artan kullanımının iktisadi pratiklerdeki değişimi yansıttığını göstermektedir. Bu bağlamda, vakıflar aracılığıyla Kıbrıs'a yaşanan Pound İkamesi, parasal verilerin tablo halinde sunulmasıyla gösterilmiştir. Ayrıca, vakıfların işletim mekanizmalarının bir parçası olarak kullanılan ribḥ oranları da çalışmada incelenmektedir. Buna göre, Kıbrıs'taki para vakıflarında uygulanan ribḥ oranlarının, aynı dönemde Osmanlı'nın diğer bölgelerinde görülen oranlara kıyasla daha düşük olduğu tespit edilmiştir. Bu makale, Osmanlı para vakıfları literatürüne katkı sağlayarak, Kıbrıs'ta yaşanan dönüşüm süreci içerisinde vakıfların gelişimi ve ekonomik önemine dair derinlemesine bir inceleme sunmaktadır. Elde edilen bulgular, vakıfların finansal araçlar olarak işleyişini ve değişen ekonomik ve idari koşullara uyum sağlama rollerini daha iyi anlamamıza katkı sağlamaktadır.

Jel Sınıflandırmaları: G21, G23, N25
Anahtar Kelimeler: Kıbrıs, Para Vakfı, Ribḥ, Birleşik Krallık, İngiliz İdaresi

Introduction

The first emergence of the waqf institution was essentially in the form of the endowment and operation of real estate[1]. However, since the early Islamic history, it has been observed that movables[2] have been used in waqfs and have entered the *fiqh* (Islamic jurisprudence) literature. This issue -particularly concerning the endowment of money— has sparked debates in *fiqh* and emerged as a significant historical milestone in waqf studies. The definition of what a waqf is, made by Ömer Hilmi Efendi (1889: 2), is to leave an **'ayn**[3] as the property of Allah, the benefit of which belongs to his servants, and to prevent the relevant ***'ayn*** from being transferred and appropriated. If the 'ayn/goods/endowed that are the subject of the waqf action are fully or partially endowed as movable/money, then there is a movable waqf or cash waqf. The word we refer to as money today used to refer to one of the types of money (such as sikke, akçe and ḳuruş), that is, a unit. Instead of money, the word we know today as ***nakit***/***nukud*** (means cash literally) was used as a general expression. Instead of money, the word we know today as ***nakit***/***nukud*** was used as a general expression. Therefore, in the sources, cash waqfs were called nukud waqfs in the old term, while the money that was endowed was called ***nukud-ı mevkufe*** (Berki, 1966: 45). Since the term ***nukud waqf*** is not used in academic writing today, the term ***cash waqf*** was preferred in this section. It will be seen both in our Cyprus research and in studies examining other geographies and periods of the Ottoman Empire that most of the movable waqfs are cash waqfs. Therefore, when movable waqfs are mentioned, the general inclusion of cash waqfs does not create an anomaly in academic expression.

Building on this conceptual foundation, it is essential to outline the methodological framework that underpins the present study. This study adopts a mixed-methods approach to investigate the economic characteristics and trends of cash waqfs in Cyprus during the early British rule (1878–1914). The methodology aims to emphasize the quantitative trends and economic features of these institutions, while maintaining a historical and contextual perspective. Primary sources form the backbone of this research, including archival documents from The Cyprus Waqf Administration (EVKAF), TRNC National Archives and Research Department (MAAD), and other historical documents that detail the establishment, cash amounts, and ribḥ (interest) rates of waqfs. These documents were systematically analyzed to extract empirical data regarding the cash waqfs throughout the study period. Secondary sources, including historical analyses and economic studies on Ottoman waqfs, were used to contextualize the findings and provide a comparative framework.

1.Method

The study employs quantitative methods to analyze trends in the establishment and operation of cash waqfs. Key variables include the annual number of waqfs established, the amounts of endowed cash, and the ribḥ rates applied. Statistical tools were utilized to calculate averages, identify fluctuations, and interpret trends over time. Data visualization

tools such as graphs and tables were employed to present these trends clearly and concisely. To assess the distinctiveness of cash waqfs in Cyprus, the findings were compared with data from other Ottoman regions. This comparative analysis provides insights into the relative frequency, size, and financial practices of Cypriot waqfs, offering a broader understanding of their economic role within the Ottoman and British administrative systems. This methodology emphasizes the economic dimensions of cash waqfs, including their role as financial instruments and their adaptation to changing monetary and administrative environments. By focusing on quantitative metrics and economic trends, the study aims to contribute to a deeper understanding of the financial features of waqfs during this transitional period. This integrated approach ensures a robust analysis of the economic aspects of cash waqfs, contextualized within the broader historical and administrative changes occurring in Cyprus under British rule. Now, before proceeding with the identification and interpretation of cash waqfs established during the British period, it is essential to first examine the status of these waqfs within the Ottoman Empire and in Cyprus prior to British rule.

2.Ottoman Cash Waqfs

It is not possible to give a date for when cash waqfs were first established in the Turkish-Islamic tradition. According to Çizakça (2017: 53), the approvals given by the Ottoman courts to cash waqfs can be traced back to the beginning of the 15th century, and it is seen that these waqfs spread to the Balkans, Anatolia, Palestine and Syria at the end of the 16th century.

The oldest cash waqf that Mandeville (1979: 290) could reach in Ottoman history was in Edirne and was established by Yağcı Ḥācī Muslihuddin in 1423. The waqf here consisted of a few shops and 10,000 aḳçe; the condition of the waqf was that the shops would be rented out and the cash would be used as a 10% ribḥ and the Quran would be read in the Church Mosque[4] every day for 1 aḳçe with the proceeds. Again, it is seen that cash waqfs were also used by the palace in the same century. Uzunçarşılı also narrates a waqf established by Fatih Sultan Meḥmed by endowing 24,000 gold coins and stipulating that its interest (nemā) would be used as a subsidy to protect the Janissary's meat needs from inflation (Uzunçarşılı: 254).

From the discussions that continued especially in the 16th century and mentioned above, we understand that cash waqfs also functioned as an important financier of the social order that made the Ottoman conquests in the Balkans permanent. According to the study of Barkan and Ayverdi, of the 1,268 waqfs established in Istanbul between 1520 and 1546, 508 were pure cash waqfs, while 140 were hybrid waqfs that were a mixture of cash and real estate (Barkan and Ayverdi, 1970: VIII). In other words, we see that 648 waqfs (52%) established during this period had the status of cash waqfs. It should be emphasized that the share of cash waqfs in total waqfs decreased significantly towards the end of the 16th century. Despite this, recent studies show that the ratio of cash waqfs to real estate waqfs has increasingly been in favor of cash waqfs, and this situation has continued until a period in the 19th century when cash waqfs were established more

frequently (Çizakça, 2019: 75). In this respect, it can be said that cash waqfs were a type of waqf seen between the subjects/vassal and the palace and settled in the Ottoman tradition from the early period. The best data that we will examine to see the tradition of establishing cash waqfs in the Ottoman Empire and compare with Cyprus are found in Ismail Kurt's study.

Table 1: Cash Waqfs Established in Istanbul in the Period of 1490-1928

Years	Number of Waqfs
1490-1538	8
1540-1587	196
1588-1636	365
1637-1683	651
1685-1733	197
1734-1781	315
1782-1830	886
1831-1878	1.051
1879-1928	303
TOTAL	**3.972**

Source: (Kurt, 2015: 225)

According to this data, an average of 9.04 waqfs were established each year in the 439-year history of Istanbul. When compared with the data below, it will be seen that the tendency to establish cash waqfs in Cyprus is incomparably low compared to Ottoman Istanbul.

3.Cyprus Cash Waqfs: Comparative Study
3.1.Quantitative Status and Tendency to Establish Waqfs
This cash waqf activity in Istanbul under Turkish rule remained quite low in Cyprus after 1570. In Sıddık Korkmazer's study examining the period between 1570 and 1826, 88 cash waqfs were identified (Korkmazer, 2023: 139).[5] Accordingly, when the starting and ending years are included, the rate of cash waqf establishment per year in the 257-year waqf history of Cyprus is 0.34. In fact, no cash waqf was established for approximately 40 years after the conquest of the island. According to the Presidential Ottoman Archive's report, the first cash waqf on the island was established in 1609 (Hijri 1018) by 'Abdullah's son Ali Beşe (TCCDAB, 2020: 252). This situation shows that the cash waqf habit on the island was acquired late. The Istanbul calculation in Kurt's study was started in 1490, the date of the first waqf establishment. When the same calculation is adapted to Cyprus, 218 years between 1609-1826 are taken into account and the annual waqf establishment tendency is found to be 0.40 on average. In any case, it will be seen that there is a serious difference between Istanbul and Cyprus. Of course, when compared to Istanbul, the capital of the largest empire of the period, the low waqf establishment tendency in Cyprus can be seen as normal. However, this situation followed a different course throughout the 19th century.

The number of Ottoman cash waqfs between 1827 and 1877, the period before Cyprus came under British rule, was determined as 53 in a study conducted by the Presidential Ottoman Archive (TCCDAB, 2020: 267-274).[6] In the 51 years during this period, the tendency to establish waqf is approximately 1.04 per year. As can be seen, the tendency to establish cash waqfs between 1570 and 1826 has almost doubled. This increasing interest in cash waqfs continued during the British administration.

The number of cash waqfs established under British rule (June 4, 1878 / 3 Cumādi el-Āhir 1295 to November 5, 1914 / 16 Ẕü'l- Ḥicce 1332) was determined as 67 as a result of our archive study.[7] When we include the start and end years, the 67 cash waqfs established in approximately 37 years give us an annual average rate of 1.81. This shows that the trend of establishing cash waqfs, which continued in the 19th century, showed a significant increase under British rule. The list of cash waqfs we have identified is given below, along with their endowed amount, establishment date and ribḥ rates.

Table 2: List of Cash Waqfs in the British Period (1878-1914)

No	Name of Waqf[8]	Establishment Date	Amount of Cash	Ribḥ Rate	References
1	Waqf of Ḥasān Ḳaptān Ağa ibn Isma'il [9]	6 Rebīʿ el-Evvel 1298 6 February 1881	20,000 ḳuruş (Ottoman piastre)	10% ribḥ rate as understood from the expense table.	EVKAF, VD 2/12-14 EVKAF, TVD ?/284-288 EVKAF, VD 6/343
2	Waqf of Ḳadiriyye Şeyh Ḥāfıż Ḥācī Ḥasān Efendi ibn Ali Ağa	16 Ṣafer 1299 7 January 1882	15,000 ḳuruş	15%	MAAD, KŞS 53/106/173 EVKAF, TVD 2/134
3	Waqf of Emine Ana bint Meḥmed Ağa	6 Rebīʿ el-Āhir 1301 4 February 1884	7,000 ḳuruş	10%	MAAD, KŞS 54/11/21 EVKAF, TVD 2/137
4	Waqf of Mesʿūd Ḥasbī Efendi ibn Lütfullah Efendi	11 Receb 1301 7 May 1884	60,000 ḳuruş	10%	EVKAF, VD 2/7?(18)[10] EVKAF, TVD 5 160-166 EVKAF, TVD 5/167-168 EVKAF, TVD 5/168-169
5	Waqf of Sitti Hanım bint Ḥācī Feyżullah Ağa	25 Şevvāl 1302 7 August 1885	4,000 ḳuruş	12%	MAAD, KŞS 54/50/97 EVKAF, VD 6/264 EVKAF, TVD 2/146-150
6	Waqf of Ḥācce Penbe Molla bint Ḥācī İbrahim Efendi	6 Ẕü'l-Ḳaʿde 1302 17 August 1885	7,500 ḳuruş	Ribḥ rate is not specified.	EVKAF, VD 6/103 EVKAF, TVD 6/220 MAAD, KŞS 54/33/67

7	Waqf of Ḥacce Penbe Molla bint Ḥācī Ibrāhīm Efendi	6 Ẕü'l-Ḳaʿde 1302 17 August 1885	2,500 ḳuruş	Ribḥ rate is not specified.	EVKAF, VD 6/104 EVKAF, TVD 6/222 MAAD, KŞS 54/31/64
8	Waqf of Ḥācī Āişe Hanım bint Omar Ağa ibn Zaim Muṣṭafa	15 Ẕü'l- Hicce 1302 25 September 1885	5,000 ḳuruş	12%	MAAD, KŞS 54/94-95/173 EVKAF, TVD 2/175-179
9	Waqf of Kara Muṣṭafa ibn ʿAbdullah	11 Rebīʿ el-Āhir 1303 17 January 1886	6,000 ḳuruş	10%	EVKAF, VD 2/61 EVKAF, VD 3/78[11]
10	Waqf of Mesʿūd Ḥasbī Efendi ibn Lütfullah Efendi	1 Şaʿbān 1303 5 May 1886	2,500 ḳuruş	10%	EVKAF, VD 5/14 EVKAF, TVD 6/17
11	Waqf of Emine bint ʿAbdulmuttalib ibn ʿAbdullah	7 Şaʿbān 1303 11 May 1886	1,000 ḳuruş.	12%	MAAD, KŞS 54/79/161 EVKAF, TVD 2/164-167
12	Waqf of Hatike Ḳādin bint Ḥācī Muṣṭafa (wife of Mesʿūd Ḥasbī Efendi)	13 Şaʿbān 1303 17 May 1886	15,000 ḳuruş	12%	EVKAF, VD 2/23-25 EVKAF, TVD 5/183-188
13	Waqf of Mesʿūd Ḥasbī Efendi ibn Lütfullah Efendi	13 Şaʿbān 1303 17 May 1886	20,000 ḳuruş	12%	EVKAF, VD 2/18-22 EVKAF, TVD 5/174-182 BOA 226
14	Waqf of ʿAbdulʿaziz Efendi ibn Attar Molla Ṣāliḥ	9 Ẕü'l-Ḳaʿde 1303 9 August 1886	7,000 ḳuruş	12%	MAAD, KŞS 54/70/144 EVKAF, TVD 2/156-160
15	Waqf of Ḥācī Hüseyin Ağa ibn Ismaʿil	16 Ẕü'l-Ḳaʿde 1303 16 August 1886	3,000 ḳuruş	12%	MAAD, KŞS 54/71/145 EVKAF, TVD 2/160-163
16	Waqf of Penbe Molla bint Çekdirioğlu Ibrāhim Ağa ibn Muṣṭafa Ağa	21 Receb 1304[12] 15 April 1887	150 English liras	10%	MAAD, KŞS 54/83-84/167 EVKAF, TVD 2/167-170
17	Waqf of Āişe bint İbrahim Ağa ibn Ṣāliḥ	2 Ẕü'l-Ḳaʿde 1304 23 July 1887	4,000 ḳuruş	12%	MAAD, KŞS 54/98-99/177 EVKAF, TVD 2/181-183
18	Waqf of Sueda Hanım bint Ismaʿil	21 Ẕü'l- Hicce 1304 10 September 1887	36,000 ḳuruş	10%	MAAD, KŞS 54/106-107/187 EVKAF, TVD 2/183-187
19	Waqf of Ṣāliḥ ibn Ḥasān ibn Ṣāliḥ	1 Rebīʿ el-Evvel 1305 17 November 1887	He donated the remainder of his heritage after the	Ribḥ rate is not specified.	MAAD, MAH.S 27/64

			conditions were met.[13]		
20	Waqf of Halvaji Meḥmed Ali Efendi ibn Molla Ṣāliḥ	5 Rebīʿ el-Evvel 1305 21 November 1887	5,000 ḳuruş	12%	MAAD, KŞS 54/114/198 EVKAF-TVD 2/190-192
21	Waqf of Naḳibüleşrāf Zühdü Efendizāde Oṣmān Nūri Efendi	9 Muḥarrem 1307 5 September 1889	75 Ottoman liras	10%	EVKAF, TVD 2/201-203
22	Waqf of Muṣṭafa Fethi Efendi ibn Hüseyin Ağa	20 Cumādi el-Evvel 1307 12 January 1890	2.5 English lira from the rent (icar) will be operated (Istirbāḥ) every year.	Ribḥ rate is not specified.	EVKAF, VD 5/65 EVKAF, TVD 6/54 EVKAF, VD 6/326 EVKAF, TVD 6/276
23	Waqf of Ḥācī Meḥmed Ağa ibn Ḥaṣān	a.h. 9 Cumādi el-Āḥir 1308 a.d. 20 January 1891	2,000 ḳuruş	12%	MAAD, KŞS-Zabıt-7 120-119/78-79/100
24	Waqf of Āişe Hanım bint Ḥācī Meḥmed Ağa	17 Ẕü'l-Ḳaʿde 1308 24 June 1891	1,600 ḳuruş	15%	MAAD, KŞS Zabıt-7 110-109/98-99/126
25	Waqf of Meḥmed Ağa ibn Aḥmed Çavuş	2 Rebīʿ el-Evvel 1309 6 October 1891	1.5 English lira from the rent will be operated every year.	Ribḥ rate is not specified.	EVKAF, VD 5/63 EVKAF, TVD ?/??[14]
26	Waqf of Havva Ḳādin bint Ḥācī Bekir	5 Rebīʿ el-Evvel 1310 27 September 1892	1,600 ḳuruş.	12%	MAAD, KŞS-Zabıt-7 61/196/223
27	Waqf of Ḥācce Emine Ḳādin bint Pehlivān Ali	15 Rebīʿ el-Āḥir 1311 26 October 1893	7,000 ḳuruş	10%	MAAD, MAH.S 21/100
28	Waqf of Ḥācce Behiye Hanım bint Yusuf Ağa	24 Şevvāl 1311 30 April 1894	1 English lira from the rent will be operated every year.	Ribḥ rate is not specified.	EVKAF, VD 6/410 EVKAF, TVD 6/301
29	Waqf of Hawali Ḳādin bint Ḥaṣān	4 Rebīʿ el-Āḥir 1312 5 October 1894	4 English liras	Ribḥ rate is not specified.	MAAD, KVGMA 36 (4)122
30	Waqf of Ali Rıżā Efendi ibn Ḥaṣān Efendi	5 Rebīʿ el-Āḥir 1313 26 September 1895	2 English lira from the rent will be operated every year.	Ribḥ rate is not specified.	EVKAF, VD 5/66 EVKAF, TVD 6/56
31	Waqf of Mesʿūd Ḥasbī Efendi ibn Lütfullah Efendi	18 Rebīʿ el-Āḥir 1313 8 October 1895	10.000 ḳuruş	9%	EVKAF, VD 2/45-46 EVKAF, TVD 5/207
32	Waqf of Mesʿūd Ḥasbī Efendi ibn Lütfullah Efendi	18 Rebīʿ el-Āḥir 1313 8 October 1895	5.000 ḳuruş and total amount of the rent of	10%	EVKAF, VD 2/47 EVKAF, TVD 5/212

			mill and store		
33	Waqf of Havva Hanım bint Yusuf Ağa	20 Cumādi el-Āhir 1313[15] 8 December 1895	1 English lira + 15 shillings from the rent will be operated every year.	Ribḥ rate is not specified.	EVKAF, VD 5/65 EVKAF, TVD 6/55
34	Waqf of Aḥmed Remzi Efendi ibn Ḥācī Halil Ağa	28 Receb 1313 4 January 1896	30 English liras	Ribḥ rate is not specified.	MAAD, KŞS-İDS 3/9/21 EVKAF, TVD 2/243-244
35	Waqf of Muṣṭafa Ağa ibn Ya'ḳuboğlu Ḥüseyin	29 Receb 1313 15 January 1896	2,500 ḳuruş	12%	MAAD, KŞS-Zabıt-7 ??/???/364
36	Waqf of Halil ibn Ḥācī Ali	18 Rebī' el-Evvel 1314 27 August 1896	4 English liras	Ribḥ rate is not specified.	EVKAF, VD 2/64 MAAD, KŞS-VKD 4/7/64-65
37	Waqf of Sir Walter Joseph Sendall, the Governor of Cyprus	6 Cumādi el-Āhir 1315 2 November 1897	100 liras[16]	10%	MAAD, KVGMA-VD 395(106A)/151
38	Waqf of Ḥacce Emine Ḳādin wife of Ḥüseyin Ağa	17 L 1315 11 March 1898	7 English liras and 11.5 shilling	Ribḥ rate is not specified.	EVKAF, VD 2/148
39	Waqf of Ḥācī Hüseyin Ağa ibn Aḥmed	24 Receb 1316 8 December 1898	3,000 ḳuruş	12%	EVKAF, VD 2/83-84
40	Waqf of Bakkalbaşı Ḥācī Hüseyin Ağa ibn Meḥmed	18 Rebī' el-Evvel 1320[17] 25 June 1902	9,000 ḳuruş (1/3 of his heritage)	Ribḥ rate is not specified.	MAAD, KŞS-İDS 3/181-182/364 EVKAF, TVD 2/275-276 EVKAF, VD 2/94 EVKAF, TVD 5/234-235
41	Waqf of Ḥacce Sidiqa bint Ali ibn 'Abdullah	6 Ẕü'l- Ḥicce 1320 6 March 1903.	3,000 ḳuruş	Ribḥ rate is not specified.	MAAD, KŞS-İDS 3/191-192/388 EVKAF, TVD 2/278-280
42	Waqf of Öksüz Meḥmed from Mora	3 Receb 1322 13 September 1904	510 ḳuruş	Ribḥ rate is not specified.	EVKAF, VD 2/95
43	Waqf of Āişe Hanım bint Mavi Gözlü Meḥmed	28 Receb 1322 8 October 1904	2,000 ḳuruş	Ribḥ rate is not specified.	MAAD, KŞS-İDS 3/231/491 EVKAF, TVD 2/285-286 EVKAF, VD 2/291
44	Waqf of Penbe bint Nūri ibn Aḥmed	5 Receb 1323 5 September 1905	4,000 ḳuruş	12%	EVKAF, VD 2/113-114
45	Waqf of Aişe Ḳādin bint Ya'ḳūb	5 Receb 1323 5 September 1905	2,000 ḳuruş	12%	EVKAF, VD 2/115-116

	Hüseyin ibn Ḥācī Yaʿḳūb				
46	Waqf of Ḥācī Muṣṭafa ibn Aḥmed ibn Hüseyin ibn Ḥācī Yaʿḳūb	5 Şaʿbān 1323 5 October 1905	The rest of the rent after the conditions met will be operated.	Ribḥ rate is not specified.	EVKAF, VD 2/117 EVKAF, TVD 5/242
47	Waqf of Ḥācī Meḥmed Karavezir ibn Oṡmān	20 Rebīʿ el-Āhir 1324 13 June 1906	750 ḳuruş.	12%	EVKAF, VD 2/119-120 EVKAF, TVD 5/245-247
48	Waqf of Ḥācī Naʿim Efendi ibn Himmetī Efendi	16 Cumādi el-Evvel 1324 8 July 1906	100 English liras	Ribḥ rate is not specified.	MAAD, KŞS-İDS 3/267-268/571 EVKAF, TVD 3/6
49	Waqf of Ali Fāiż Efendi ibn Ḥācī Ḥaṣān Ağa	17 Receb 1324 6 September 1906	10 English liras	Ribḥ rate is not specified.	MAAD, KŞS-İDS 3/268-269/572 EVKAF, TVD 3/8
50	Waqf of Rabia Hanım bint Rashid Efendi, wife of Zuhdu Efendi	20 Rebīʿ el-Āhir 1325 2 June 1907	300 English liras	Ribḥ rate is not specified.	EVKAF, VD 2/146 EVKAF, TVD 5/257
51	Waqf of Ḥācī Muṣṭafa Şakir Efendi ibn Ḥācī Meḥmed Efendi	29 Cumādi el-Evvel 1325 10 July 1907	1 English lira from the rent will be operated every year.	Ribḥ rate is not specified.	EVKAF, VD 2/149 EVKAF, TVD 5/261
52	Waqf of Havva Hanım bint Yusuf Ağa	18 Şevvāl 1325 24 November 1907	The rest of the rent after the conditions met will be operated.	Ribḥ rate is not specified.	EVKAF, VD 5/64 EVKAF, TVD 6/52 EVKAF, VD 6/324 EVKAF, TVD 6/272
53	Waqf of Aliye Akile Hanım bint Şeyh Muṣṭafa Efendi	17 Żü'l- Ḥicce 1326 10 January 1909	30 English liras	Ribḥ rate is not specified.	MAAD, KŞS-İDS 4/20/58 EVKAF, TVD 3/25
54	Waqf of Halil Ağa ibn Muhtār Ḥaṣān Ağa	21 Receb 1327 8 August 1909	10 English liras (equal to 1,820 ḳuruş)	Investment (istirbāḥ) with the rate of 10% or 12%	MAAD, MAH.S 33/87/780
55	Waqf of Ḥācī Ḥaṣān Fehmi Efendi ibn Ḥācī Muttalib	5 Şaʿbān 1328 12 August 1910	20 English liras	Ribḥ rate is not specified.	MAAD, KŞS-İDS 4/55/153 EVKAF, TVD 3/34 EVKAF-TVD 5/92-95
56	Waqf of Ḥācī Bekir Ağa ibn Ibrāhim	12 Şaʿbān 1328 19 August 1910	1,600 ḳuruş	Ribḥ rate is not specified.	MAAD, MAH.S 33/64/849
57	Waqf of Qunduraji Meḥmed Şah Efendi ibn Ḥācī Yahya	27 Ramażān 1329 21 September 1911	75 English liras	Ribḥ rate is not specified.	MAAD, KŞS-Zabıt-108(13) 186/130

58	Waqf of Ḥācī Emirzāde ibn Muṣṭafa	10 Rebīʿ el-Evvel 1330 28 February 1912	2 English lira from the rent will be operated every year.	Ribḥ rate is not specified.	EVKAF, VD 5/66 EVKAF, TVD 6/57-58
59	Waqf of Ḥācī Emin Efendi ibn Muṣṭafa ibn Saadettin	5 Şaʿbān 1330 20 July 1912	60 English liras	10%	MAAD, KŞS-İDS 4/104/256 EVKAF, TVD 3/54
60	Waqf of Ḥüseyin Ağa ibn Ḥācī Aḥmed	5 Ẕü'l- Ḥicce 1330 15 November 1912	50 English liras	Ribḥ rate is not specified.	MAAD, MAH.S 33/37/951
61	Waqf of Ḥācī Oṣmān Ağa ibn Ḥācī Ḥaṣān	15 Ẕü'l- Ḥicce 1330 25 November 1912	11 English liras	12%	MAAD, KŞS-İDS 4/116/280 EVKAF, TVD 3/59
62	Waqf of Aişe bint Ḥācī İbrahim	16 Ẕü'l- Ḥicce 1330 26 November 1912	10 English liras	Ribḥ rate is not specified.	MAAD, MAH. S 33/37/952
63	Waqf of Muṣṭafa Ağa ibn Aḥmed Mındıḳ	8 Rebīʿ el-Evvel 1331 15 February 1913	150 English liras.	12%	MAAD, KŞS-İDS 5/461-462/638 EVKAF, TVD 3/211-212 EVKAF, TVD 5/101-103
64	Waqf of Āişe bint Ikinci Ḥüseyin and her husband Ḥācī Aḥmed Ağa ibn Meḥmed	3 Receb 1331 8 June 1913	1,800 ḳuruş	Ribḥ rate is not specified.	MAAD, MAH.S 33/25/1004-1005
65	Waqf of Ḥācī Muṣṭafa Şākir Efendi ibn Ḥācī Meḥmed Efendi	12 Rebīʿ el-Āhir 1332 10 March 1914	1 English lira from the rent will be operated every year.	Ribḥ rate is not specified.	EVKAF, VD 5/147-148 EVKAF, TVD 6/119
66	Waqf of Qunduraji Meḥmed Şah Efendi ibn Ḥācī Yahya	3 Cumādi el-Evvel 1332 30 March 1914	50 English liras	Ribḥ rate is not specified.	EVKAF-TVD 3/101-103[18]
67	Waqf of Ciğerci Ḥaṣān ibn Ciğerci Ḥüseyin	25 Receb 1332 19 June 1914	The rest of the rent after the conditions met will be operated.	Ribḥ rate is not specified.	EVKAF, VD 5/64 EVKAF, TVD ?/51

In our study of the Cyprus archives, a total of 175 waqfs were identified during the British rule until November 5, 1914. The share of the 67 cash waqfs we identified during this period in this total is approximately 38.28%. In other words, more than every third foundation was established as a cash waqf. Korkmazer's (2023: 139) study examined a total of 267 waqfs between 1570 and 1826, and 88 of these waqfs were cash waqf. Accordingly, the share of cash waqfs in the total number of waqfs during Korkmazer's period was 32.95%. This comparison shows that the tendency to establish cash waqfs increased in direct proportion to the tendency to establish waqfs. Therefore, the situation

of one in three waqfs established during the Ottoman period being a cash waqf continued during the British period.

According to the TCCDAB (2020: 275) publication, the first cash waqf under British administration is dated 7 January 1882 / 16 Safer 1299. However, in our research in the Cyprus EVKAF archive, it was seen that two shops and 20,000 ḳuruş were donated by Ḥaṣān Ḳaptān Aġa ibn Ismaʿil on 6 February 1881 (EVKAF, VD 2/12-14; EVKAF, TVD ?/284-288; EVKAF, VD 6/343). In other words, a cash waqf was identified approximately one year before the date stated by the Presidential Ottoman Archive.

The most notable of the cash waqfs established in Cyprus is the waqf established by Sir Walter Joseph Sendall, who was the High Commissioner of Cyprus between 1892-1898 (MAAD, KVGMA-VD 395(106A)/151). Sir Sendall endowed 100 liras during the fifth year of his tenure in Cyprus, stipulating that this amount be invested[19] at an annual rate of 10%. It was stipulated that the interest generated from the endowed cash be distributed annually to students who graduated with distinction from the Cyprus Islamic Rüşdiye. Accordingly, the first-place student of the final year would receive 5 liras, the first-place student of the second year would receive 2 liras, the first-place student of the third year would receive 1 lira and 10 liras, and finally, the first-place student of the fourth year would receive 1 lira. Based on the examination of the accessible documents, it is important to highlight that the only non-Muslim waqf identified within the scope of this study is the waqf established by Sir Sendall. Another noteworthy point during this period is the increase in cash waqfs established by Turks, contrasted with the complete absence of non-Muslim waqfs, except for the waqf of Sir Sendall. This could be attributed to a perceived need among Turks for protection through these cash waqfs. The transfer of administration to the British and the adoption of British currency on the island likely fostered a sense of alienation among the Turkish population. This situation suggests that the Muslim community may have sought to safeguard its economic and social position through the institution of waqfs.

3.2.Amount and Distribution of Endowed Money

It was shown above that the tendency to establish cash waqfs in Cyprus increased in direct proportion to the 300-year tendency to establish waqfs. It should be emphasized that the long-term and stable tendency shown towards cash waqfs was not observed in the amount of money endowed. Such that, during our period of study, no cash waqfs were detected in some years, while in some years, it was observed that there were higher than normal amounts of endowments. However, it can be said that cash waqfs were generally small compared to real estate. This observation was also made by Seager, who prepared a report on waqfs in 1883. According to him, although the waqf owners made big statements in their wills and resorted to prayers, they did not do much about religious purposes and in general, the trustees (*mutawallis*) were the ones who benefited from cash waqfs (Seager, 1883:13). If we take into consideration the quantitative instability and Seager's determination based on this, we can see the following numerical data:

Graph 1: Distribution of Endowed Money by Years (ḳuruş / years)
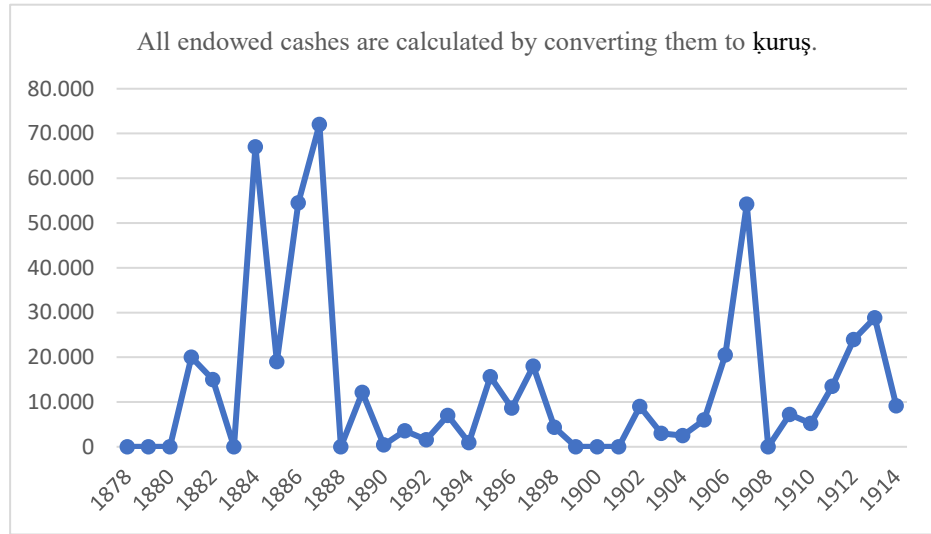
The graph was created by converting the amounts of endowed cash (*mevḳūf*) in Table 2 into ḳuruş and summing the endowments of the cash waqfs established in the same year. As seen in Table 2, the endowed cash includes various currencies such as the British pound, liras, and Ottoman lira. The following exchange rates were used in converting all of these into ḳuruş.

- 1 Turkish lira = 18 liras = 162 ḳuruş (Chalmers, 1893: 331-332)
- 1 pound = 20 liras = 180 penny/ḳuruş
  - 1 English lira = 180 penny (MAAD, MAH.S 33/87/780; Zia, 1975: 89)
  - 1 English lira = 20 liras (EVKAF, TVD 5/277; MAAD, KŞS-İDS 4/36/107)
  - 1 liras = 9 penny (Colonial Office, 1888: 284)
  - 1 penny = 40 para (Colonial Office, 1914: 165)

As seen in Graph.1, prepared in accordance with this calculation, no cash waqfs were seen in the first three years of Cyprus' transfer to British administration, 1878, 1879 and 1880. After this date, no cash waqfs were seen in the years 1883, 1888, 1899, 1900, 1901 and 1908. The year when the endowed cash amount peaked was 1887 with a total endowment value of 72,000 ḳuruş. In fact, the endowed cash average between 1884 and 1887 was much higher than the average of other years. The calculation in this graph was made by adding up the endowment amounts of the waqfs established in the same year. However, the highest endowed cash amounts in the period we examined were as follows, in order:

1. The waqf of 60,000 ḳuruş made by Mesʿūd Ḥasbī Efendi ibn Lütfullah Efendi on May 7, 1884 (EVKAF, VD 2/7?(18); EVKAF-TVD 5 160-166)
2. 300 British liras -54,000 ḳuruş- donated by Rabia Hanım bint Rashid Efendi on June 2, 1907 (EVKAF, VD 2/146; EVKAF, TVD 5/257)

3. The waqf of 36,000 ķuruş established by Sueda Hanım bint Isma'il in September 1887 (MAAD, KŞS 54/106-107/187; EVKAF, TVD 2/183-187).

Here, we should also open a parenthesis for Mes'ūd Ḥasbī Efendi. Because he is the person who established a cash waqf with the highest amount of endowment at one time and he established cash waqfs 5 times in total.[20] The total endowment amount of these waqfs is 97,500 ķuruş. In addition, there is a waqf that Mes'ūd Ḥasbī Efendi established on 8 October 1895 / 18 Rebiülahir 1313, which includes 5,000 ķuruş, a mill and a store. If we take into account that he had the mill and store here rented, the total figure will be above this (EVKAF, VD 2/47; EVKAF, TVD 5/212). In addition, Hatike Ķādin bin Ḥācī Muṣṭafa, who was the wife of Mes'ūd Ḥasbī Efendi, also established a waqf independently with 15,000 ķuruş (EVKAF, VD 2/23-25; EVKAF, TVD 5/183-188).[21] Accordingly, the total amount of the Mes'ūd Ḥasbī Efendi family's endowed cash amount reaches the total amount of 112,500 ķuruş and interests (rental *istirbāḥ*).

3.3. Dollarization in Cash Waqfs: Pound Substitution

The most obvious difference for the Cyprus cash waqfs under British rule was that the Ottoman monetary system was replaced by British currency. This situation, referred to as dollarization in modern economic terms, can also be considered as currency substitution (Giovannini and Turtelboom, 1992). Essentially, this term refers to a country using a foreign currency in its own economic transactions and in the valuation of its own currency. This monetary situation was seen in some parts of the world in the 1970s and 1980s in terms of dollars and was therefore referred to as dollarization. However, in our case, it would be more appropriate to use this term as ***Pound Substitution***.

In Cyprus Convention, it was determined by international agreement that the island's ownership remained with the Ottomans, but its administration was left to the British (İSAM, Berlin Ahidnāmesi, 1908: 61-62; İSAM, Fahreddīn Rumbeyoğlu and Meḥmed Nābi, 1919: 10). However, as soon as the British took over the administration of the island, they started to use their own currency. In other words, all payments made by the British administration on the island were made in gold and silver British coins (Zia, 1975: 89). This situation led to a currency substitution in favor of the pound in Cyprus under British rule over time, and it was observed that the British lira and liras constantly became the endowed currency in the cash waqfs. When the study period is divided into three phases, the number of cash waqfs referencing British coins can be outlined as follows:

Table 3: Cash Waqfs by Currency

Period	Ķuruş	Ottoman Lira	British Lira and Shilling[22]	Not Specified Currency[23]
1878-1890	18	1	2	1
1891-1902	9	-	9	-
1903-1914	8	-	16	3
Total	**35**	**1**	**27**	**4**

As seen in Table 2, in the first 13 years of the approximately 37-year British period (1878-1914), only 2 waqfs were established with reference to British currencies, while in the last 12 years of the same period this number increased to 16. It is noteworthy that in the

1903-1914 period, references to British currencies were 100% higher than to ḳuruş. This finding indicates that British currency became dominant in cash waqfs before 1914, the year the island was annexed. In addition, the increasing use of British currency indicates that the circulation of Turkish currency was withdrawn from daily economic transactions. In other words, these data showed that the ***Pound Substitution*** issue we wanted to emphasize was valid in waqfs.

The first reference to the British currency in cash waqfs was used in the waqf of Penbe Molla bint Çekdirioğlu Ibrāhim Ağa dated 15 April 1887 / 21 Receb 1304. Here it is stated that 150 British liras were donated (MAAD, KŞS 54/83-84/167; EVKAF, TVD 2/167-170). The British currency endowed during the period in question ranged from 4 to 300 British liras. Among the waqfs we examined between 1878 and 1914, the reference to the Ottoman lira was seen only in one waqf (EVKAF, VD?/105; EVKAF TVD 2/201-203).[24] This waqf is dated 5 September 1889 / 9 Muḥarrem 1307 and belongs to Naḳibüleşrāf Zühdü Efendizāde Oṣmān Nūri Efendi. Both before and after this waqf, many endowed moneys (*mevḳūf*) were expressed using the English lira and liras. Therefore, if the endowment document (*waqfiyya*) mentions lira, the calculation here was made by taking the English lira into account.

4. Operation of Cash Waqfs and Ribḥ Rates

In the early period of Islamic jurisprudence (fiqh) in general, and Hanafi fiqh in particular, attention was paid to the fact that the endowment (*mevḳūf*) was the property of the person who made the waqf and therefore the authority to use the right of disposition/tenure was absolute. Because there should not be any problem about ownership that would harm the legal endlessness of the waqf. In order for the waqf to be established, in addition to the conditions of the founder (*vāḳıf*) of the waqf, the estate (mevḳūf) also had to have the condition of continuity. This context, known as the permanence/eternity of the waqf, has caused different discussions about the movable waqf. That is, the permanence of the charity/service that will exist as the purpose of the waqf will be possible with the permanence of the endowed property/goods. Therefore, it has been a natural practice for the endowments to consist of real estate from the early period. Since the idea of waqfs based on real estate is related to the permanence of the waqf, whether money has this quality or not has also led to the questioning of the existence of the cash waqf. However, it was seen that movables were first approved through ***complementary goods*** (Yediyıldız, 1986: 154) and ***customary precedents*** (Serahsi, 2008: 80; Döndüren, 2016), and then it was understood that they gained continuity through the methods of operating the money. In other words, the protection and increase of the principal by operating the endowed money became a point that was considered the basis for the sustainability of the cash waqf. Thus, the sustainability of cash waqfs became possible in two ways: direct endowment of money and expanding the existing deposit by operating. For example, in a study conducted for Bursa, it was determined that 81% of 148 cash waqfs were waqfs that increased their capital (Çizakça, 1995: 325). According to this data, the waqfs that

increased their deposits by operating endowed money were more than the waqfs that achieved continuity by acquiring endowed money.

The issue of operating and growing the endowed money is a separate area of discussion in Islamic history. The most critical point here is that the methods of operating the money do not resemble riba. The operating methods that constitute a wide literature in Islamic economics today are also a natural subject of cash waqfs. Whether cash waqfs were operated with interest was also discussed in the Ottoman Empire and it cannot be said that an agreement has been reached on this issue even today.[25] Although we will not include this discussion here, which will be the subject of another study, we will try to reveal the method by which money was operated in Cyprus waqfs and the ribḥ rates of the evaluated money.

Although the method of operating the endowed money was initially expressed as mudarabah, in Çizakça's article comparing studies conducted for different regions such as Sarajevo, Bursa, and Üsküdar, it was understood that cash waqfs mostly did not prefer the mudarabah method (Çizakça, 2019: 78). Since the waqf also shares the risk in mudarabah and other partnership methods, the waqf trustees (*mutawalli*) resorted to lending methods over time (Gözübenli, 1994: 56). During our period, the method of operating with mudarabah was not seen in the documents, and there were types of operating with lending such as the direct ***mu'āmele şer'iyye*** and ***bey'*** method.

In basic Islamic sources, riba is explicitly prohibited, while trade is declared permissible (Quran, 2/275 and 4/29). Therefore, it should be stated that Islamic jurists have meticulously addressed the issue in order to remain outside the realm of riba and within the realm of trade in monetary transactions. Despite this, even today it is not clear which type of borrowing is riba and which transaction is trade profit. For these controversial transactions, which are also the case in cash waqfs, the method called hila-i mu'āmele şer'iyye has been used in the terminology. Three of these economic transactions, which legally indicate the use of fraudulent means, are particularly used. These can be listed as ***mu'āmele şer'iyye***, ***bey' bi'l-vefā*** (conditional sale with the right of repurchase) and ***bey' bi'l-istiğlāl*** (sale with the right of usufruct/exploitation).

The main method of operating cash waqfs is the mu'āmele şer'iyye. In Berki's words, the şer'iyye transaction is a transaction made "*for the elimination/silencing of interest*"[26] (Berki, 1966: 38). In this transaction, the money in question is lent to someone for a certain period of time and the interest rate corresponding to this period is calculated. Then, a waqf property is sold to the debtor party (to be donated back to the waqf) in return for the calculated interest amount. The transaction is completed when the debtor pays back the principal, he received from the waqf and donates the mentioned property. Thus, the waqf, acting as the lender, recovers both the principal amount and the interest calculated for the duration of the loan. In addition, another type of application is the transaction type in which the borrower sells a property in his possession to the lender (the cash waqf) for a certain amount and buys back this property at a higher rate when the time comes to pay

the debt to the cash waqf. In this method, the borrower sells the goods to the lender at price A and buys them from the lender by paying price A+B. Thus, he leaves the interest share in the amount of B to the lender or, in our case, to the cash waqf. In fact, the practice of muʿāmele şerʿiyye can be encountered in different ways than here; however, the common point of all of them is to include a sale transaction into the debt-purchase transaction. Thus, it will be shown that the amount of debt to be paid is a transaction originating from the sale not interest (Kaya, 2007: 20-27).

The revenue generated through this practice in Cypriot cash waqfs was referred to as ribḥ, consistent with its terminology in the Ottoman Empire, and terms such as nemā, galle, and geẕüşte were also employed alongside ribḥ (EVKAF, VD 2/12-14; EVKAF, TVD?/284-288; MAAD, KŞS 53/106/173; MAAD, KKVD 239/118. EVKAF, VD 2/61). The word ribḥ is the main expression here, and the word istirbāḥ, derived from this word, appears as a terminology expressing that the muʿāmele şerʿiyye will be applied. The ribḥ ratio of istirbāḥ and other details deemed necessary were expressed in the waqf charters as follows (first cite MAAD, MAH.S 33/87/780; second cite EVKAF, TVD 2/201-203):

> *"[…] the aforementioned ten liras shall be entrusted to the mutawalli (trustee) with solid collateral and a reliable guarantor, to be invested (istirbāḥ) at an interest rate of ten or twelve percent, and the resulting profit […]"*

> *"[…] the aforementioned amount of seventy-five Ottoman liras shall be entrusted to the mutawalli (trustee) with solid collateral or a reliable guarantor, to be continuously invested (istirbāḥ) annually at a rate of ten to eleven and a half percent in a permissible (halal) manner, and […]"*

The aforementioned expressions also make it clear what the waqf's conditions are regarding the endowments are. Here, the expression "*rehn-i kavî*" refers to a movable or immovable pledge (solid collateral) whose value corresponds to the debt, while "*kefîl-i melî*" refers to a person with wealth being shown as a reliable guarantor for an unpaid debt (Berki, 1966: 31, 46). Therefore, the endowed money could be used by the person who met these conditions through the istirbāḥ method. As mentioned above, the interest obtained from this was also called ribḥ (or galle, nemā). However, the interest (ribḥ) rates obtained by the cash waqfs were also limited by the law, and whether transactions were carried out in accordance with these rates was checked by the waqf administrative organizations (Korkmazer, 2023: 139). Indeed, Ebussuud Efendi also allowed interest-based transactions under the name of legal transactions in order to prevent usury/ribâ during the reign of Sultan Bayezid II. It was stipulated that the 15% upper limit, which was valid from Bayezid onwards, should not be exceeded (Çınar and Kaya, 2015: 82). Although it is a late period, it should be noted that the 15% ribḥ rate was not exceeded between 1878 and 1914, which is our field of study.

Graph 2: Ribḥ Rates by Year (% / Years)
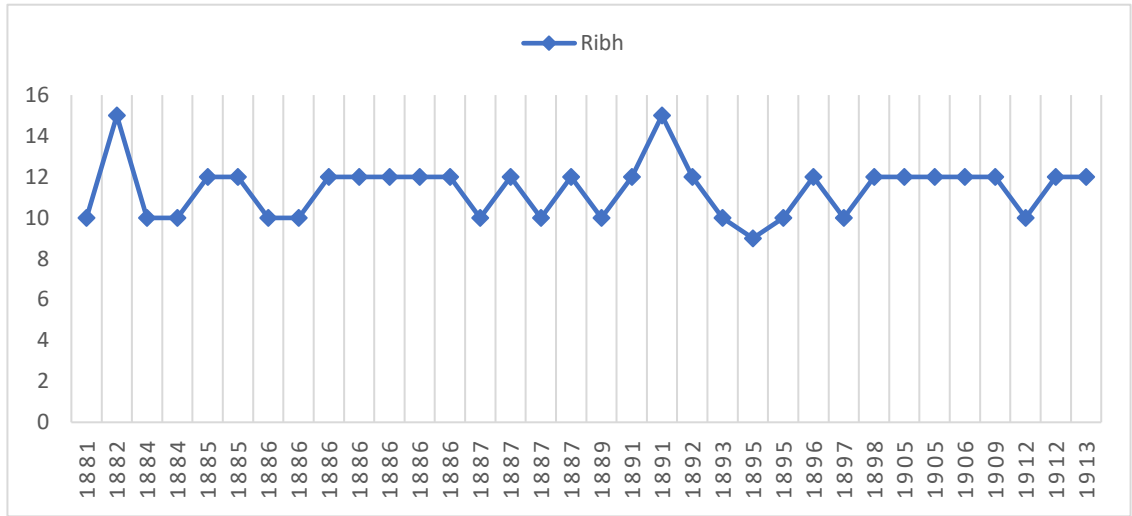
As can be seen in the graph, the ribḥ rates stated in cash waqfs show a distribution between 9% and 15%. However, it should be emphasized that most of the waqfs in this range have istirbāḥ transactions between 10-12%. Because, while there are two waqfs that set the ribḥ rate as 15%, there is only one waqf that sets it as 9%. The only waqf that sets the ribḥ rate as 9% is the waqf of Mesʿūd Ḥasbī Efendi dated 8 October 1895 / 18 Rebiülahir 1313 and amounting to 10,000 ḳuruş (EVKAF, VD 2/45-46; EVKAF, TVD 5/207). The waqfs that determined the istirbāḥ rates as 15% are the waqf of the Ḳadiriyye Şeyh Ḥāfıż Ḥācī Ḥaṣān Efendi dated 7 January 1882 / 16 Safer 1299 and amounting to 15,000 ḳuruş (MAAD, KŞS 53/106/173; EVKAF, TVD 2/134) and the waqf of Āişe Hanım bin Ḥācī Meḥmed Ağa dated 24 June 1891 / 17 Ẕü'l-Ḳaʿde 1308 and amounting to 1,600 ḳuruş (MAAD, KŞS Zabıt-7 110-109/98-99/126). Apart from this, as can be seen, almost all of the waqfs had istirbāḥ transactions carried out in the range of 10% and 12%. The ribḥ (interest) rate encountered in Cyprus, ranging between 10-12%, is considerably lower compared to other Ottoman territories. For instance, during the same period, ribḥ rates were approximately 14% in the Edirne-Kırklareli region, 15% in the Tekirdağ region, 14.6% in Macedonia, Kosovo, Albania, Serbia, and Romania, 13.7% in Bosnia and Herzegovina, 14.8% in Greece, and 14.9% in the Bulgarian region (Bulut, 2019: 78-85).

Apart from the muʿāmele şerʿiyye, one of the mentioned applications is the beyʿ (بيع) method, which is of two types: beyʿ bi'l-vefāʾ and bey ʿ bi'l-istiğlāl. The word beyʿ means exchange, and in Arabic, beyʿ is generally used for sale and şirâʾ (شراء) is used for purchase (Bardakoğlu, 1992: 13). In accordance with Arabic, its use in the terminology of waqfs is also focused on sale. The beyʿ method is seen in two forms: vefāʾ and istiğlāl.

Among these, the practice of vefāʾ is the main one, while istiğlāl is considered as a type of former (Bayındır, 1992: 20-22; Kaya, 2007: 87). In the transaction of vefāʾ, the person who takes the loan/borrower leaves a property to the lending party and when the lender returns it, he/she makes the transaction as if he/she has bought back this property. In the

transaction made with this contract, the party who takes the property as collateral does not own the property and cannot sell this property to a third party on his/her own. In other words, he/she shows loyalty to the property and expects the borrower to return his/her loan. Bey' bi'l-istiǧlāl can be summarized as sale on the condition of renting. In fact, it can also be said that it is the application of bey' bi'l-vefāʾ on the condition of renting. In this method, the party who gives the loan/loan buys the property from the borrowing party in the same way and gives the determined amount to the borrower in return. Here, unlike the sale by way of vefāʾ, the goods purchased by the lender are rented back to the original owner, that is, the borrower. Thus, the goods sold remain in the use of the same person (Bayındır, 1992: 21).

Conclusion

The number of cash waqfs established under British rule (June 4, 1878 / 3 Cumādi el-Āhir 1295 to November 5, 1914 / 16 Ẕü'l- Ḥicce 1332) was determined as 67 as a result of our archive study. First, the tendency to establish cash waqfs was comparatively examined in the study. Accordingly, while the tendency to establish cash waqfs in Ottoman Istanbul between 1490-1928 was 9.04, this rate was determined as 0.34 in Cyprus between 1571-1826. While the tendency to establish cash waqfs was 1.04 in Cyprus between 1827-1877, which was the close period before the British, it was determined as 1.81 under British rule. This shows that the trend of establishing cash waqfs, which continued in the 19th century, showed a significant increase under British rule.

A total of 175 waqfs were determined in Cyprus from the beginning of the mentioned British rule until the annexation period on November 5, 1914. The share of the 67 cash waqfs identified in the early British administration in this total is approximately 38.28%. In other words, one in every three waqfs between 1878 and 1914 was established as a cash waqf. During Korkmazer's period (1570-1826), the share of cash waqfs in the total number of waqfs was 32.95%. This comparison shows that the tendency to establish cash foundations increased in direct proportion to the tendency to establish waqfs. Therefore, the situation of one in three foundations established during the Ottoman period being a cash waqf continued during the British period.

In the TCCDAB publication, the first cash waqf under British administration is dated 7 January 1882 / 16 Safer 1299. However, in our research in the Cyprus EVKAF archive, it was seen that two stores/shops and 20,000 ḳuruş were donated by Ḥaṣān Ḳaptān Ağa ibn Isma'il on 6 February 1881. In other words, a cash waqf was identified approximately one year before the date stated by the Presidential Ottoman Archives.

During our period of study, while no cash waqfs were detected in some years, it was observed that there were higher than normal deposits in some years. No cash waqfs were established during the first three years following Cyprus's transition to British rule in 1878, 1879, and 1880. After this date, no cash waqfs were seen in the years 1883, 1888, 1899, 1900, 1901, and 1908. The peak of the deposited money amount was in 1887 with

a total endowment value of 72,000 ķuruş. In fact, the endowed money average between 1884 and 1887 was much higher than the average of other years. The most obvious difference for the cash waqfs in Cyprus during the British rule was that the Ottoman monetary system was replaced by British currency. The ribḥ rates in Cypriot cash waqfs from 1878 to 1914 varied between 9% and 15%. However, it should be emphasized that most of the waqfs in this range have made istirbāḥ transactions between 10-12%. Because, while there are two waqfs that set the ribḥ rate as 15%, only one waqf was identified that set it as 9%.

Notes

[1] This term is used instead of the word "*gayr-i menķūl*".

[2] This term is used instead of the word "*menķūl*".

[3] The word Ayn is given in two meanings in the TDV Encyclopedia of Islam as "existing, ready and determined goods" and "things that are equivalent to *deyn* (debt)" (see also Karaman, 1991).

[4] In Mandeville's article this mosque is originally written as "*Kilise Camiï*".

[5] In the Cyprus Waqfs titled work published by the Republic of Turkey Presidential State Archives–Ottoman Archive in 2020, there are 52 cash waqfs between 1570-1826 (the last waqf was listed as dated 19 Cumādi el-Evvel 1242 / 19 December 1826). While only cash waqfs were made in 43 of them, 9 of them were hybrid waqfs (see also TCCDAB, 2020: 249-266).

[6] The date range here starts with the Ayşe Molla Hatun Foundation dated 25 Ẕü'l-Ķaʿde 1242 (20 June 1827) and ends with the Hacı Ahmed Efendi ibn Hüseyin Efendi Foundation dated 25 Cumādi el-Evvel 1294 (7 June 1877).

[7] The Presidential Ottoman Archive gave the number of cash foundations as 40 for the same period (see also TCCDAB, 2020: 274-284).

[8] The Redhouse 1884 dictionary and the Encyclopedia Britannica were taken into account in the transcription (not transliteration) methods here.

[9] The date of the document itself is 12 Şaʿbān 1309 (12 March 1892), and in the study prepared by the Presidential Ottoman Archive (TCDDAB, 2020), the date of this waqf, which is included in no.250, was entered as the date of the document. In addition, 12 Şaʿbān was also entered incorrectly as 22 Şaʿbān 1309. However, this date is probably the date of the scribe's own document; the correct date is 6 February 1881 (25 Ķanun Sāni 1296), which we have provided. In other words, the date of the waqf is approximately 13 years earlier than that stated in the BOA.

[10] This code is given as VD 2/7 in TCCDAB (2020) study.

[11] This document, dated 5 Muḥarrem 1315, is probably a copy.

[12] In the TCCDAB (2020) publication, it is written as 11 Receb. However, in the archive document we have accessed, it is read as 21.

[13] Separation of 1/3 of his heritage after funeral and burial expenses and debts, if any; 2,000 ķuruş from this 1/3 was given to Ahmed Efendi ibn Hacı Ahmed, 1,000 ķuruş to the children of his deceased relatives, 500 ķuruş (1 aķçe) to his daughter, and the rest was endowed.

[14] A TVD record was sent to us in return for the requested document from the Cyprus EVKAF archive with the code VD 5/63, and it is not understood which book and number the relevant TVD record is registered with. For this reason, both codes have been added.

[15] In the document, next to this date, it says 25 Tişrīn Sāni 1895. In the TTK guide, the equivalent of 20 Cumādi el-Āhir 1313 is given as 26 Tişrīn Sāni 1311 and 8 December 1895. We based the date of 25 Tişrīn Sāni written in the document in the date section of the table. In the TCCDAB (2020) publication, the date 5 Rebīʿ el-Evvel 1313 is given for this foundation, and it is estimated that this date is written incorrectly.

[16] It is evaluated as British pound.

¹⁷ In the document from EVKAF (TVD5/234-235), this date is written as Hijri 28 Rebīʿ el-Evvel 1320 and Rumi 22 June 1318 and Gregorian July 5, 1902.

¹⁸ This record was given as TVD 5/142 in the TCDDAB (2020: 284) publication, but it was found to be incorrect.

¹⁹ This word has been used to correspond to the term 'istirbāḥ'.

²⁰ See also Tablo.2/No.4, No.10, No.13, No.30, No.31.

²¹ See also Tablo.3/No.12.

²² In the waqfs, only the expressions mentioned as lira are counted as British lira. The relevant explanation is given in the rest of the chapter.

²³ Even if the rent was operated (istirbāḥ), those whose type of rent was not specified in monetary terms were also counted here.

²⁴ Tablo.2/No.21.

²⁵ Çizakça's evaluations, which state that both economists' calling cash waqf transactions as interest and Islamic jurists' calling them as not interest is right, can be seen as a good explanation at this point. For detailed information, see also (Çizakça, 2019: 73-84).

²⁶ In Turkish: "*faiz ilzamı için*".

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- ?/??
- 2/12-14
- 2/134,
- 2/146-150,
- 2/156-160,
- 2/160-163,
- 2/164-167,
- 2/167-170,
- 2/175-179,
- 2/181-183,
- 2/183-187
- 2/190-192,
- 2/201-203,
- 2/243-244,
- 2/275-276,
- 2/278-280,
- 2/285-286,
- 3/6,
- 3/8,

- 3/25,
- 3/34,
- 3/54,
- 3/59
- 3/101-103,
- 3/137,
- 3/211-212,
- 5/92-95,
- 5/101-103,
- 5/160-166,
- 5/167-168,
- 5/168-169,
- 5/174-182,
- 5/183-188,
- 5/207,
- 5/212,
- 5/213,
- 5/234-235,
- 5/242,
- 5/245-247,
- 5/257,
- 5/261,
- 5/277,
- 6/17,
- 6/52,
- 6/54,
- 6/55,
- 6/56,
- 6/57-58,
- 6/119,
- 6/220,
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- 2/83-84,
- 2/94,
- 2/95,
- 2/113-114,
- 2/115-116,
- 2/117
- 2/119-120,
- 2/146,
- 2/148,
- 2/149,
- 2/291,
- 3/78,
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Etik İlkeler ve Yayın Politikası

Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi yazarların, derginin ve bilimin haklarını korumak adına Etik Kurallarına önem vermektedir. Bu kapsamda yayın süreçlerinde bilginin tarafsız bir şekilde, bilimsel yöntemle üretilip geliştirilmesini ve paylaşılmasını ön görmektedir. Hakemli makalelerin bilimsel yönteme dayanması, çalışmalarda mümkün olduğunca objektifliği sağlamaktadır. Bilimsel üretimin gerçekleştirilmesi noktasında yayın sürecinin bütün paydaşlarının; editör, yazar, yayıncı, hakem ve okuyucuların etik ilkelere dair standartlara uyması önem taşımaktadır. Bu çerçevede Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi'nin yayın etiği ile açık erişim politikası da "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" ve "Committee on Publication Ethics (COPE)" tarafından yayınlanan ilkeler çerçevesinde, yayın sürecinin bütün bileşenlerinin etik ilkelere uymasını gerektirmektedir. Detaylı bilgiye linkten ulaşılabilir.

Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi yazarların, derginin ve bilimin haklarını korumak adına Etik Kurallarına önem vermektedir. Bu noktada sürecin bütün paydaşlarının (yazarlar ve araştırmacılar, hakemler ve editörler) etik ilkelere yönelik standartlara uyması önem taşımaktadır. Bu çerçevede tarafların uyması gereken etik kuralları şu şekildedir:

YAZARLARIN SORUMLULUKLARI

• Tüm yazarlar önemli oranda araştırmaya katkıda bulunmalıdır.
• Dergiye gönderilen akademik çalışmalar özgün olmalı, intihal ve sahte veriye yer verilmemelidir.
• Makale aynı anda farklı dergilere gönderilmemelidir ve daha önce başka bir dergiye gönderilmiş olmamalıdır.
• Alıntı yapılan kaynaklar kaynakçaya mutlaka yazılmalıdır.
• Atıflar ve kaynakça yazım kurallarına uygun bir şekilde yazılmalıdır.
• Gönderilen çalışmanın benzerlik oranı %20'yi geçmemelidir.
• Dergiye gönderilen akademik çalışmalar yayın etiğine aykırı olmamalıdır.
• Tüm yazarlar geri çekmeyi ve hataların düzeltilmesini sağlamak zorundadır.
• Dergiye gönderilen yazılarda yazarların bu koşullara uymayı kabul ettikleri varsayılır.

YÜKSEKÖĞRETİM KURUMLARI BİLİMSEL ARAŞTIRMA VE YAYIN ETİĞİ YÖNERGESİ 4. MADDE'YE GÖRE BİLİMSEL ARAŞTIRMA VE YAYIN ETİĞİNE AYKIRI EYLEMLER ŞUNLARDIR:
• İntihal: Başkalarının özgün fikirlerini, metotlarını, verilerini veya eserlerini bilimsel kurallara uygun biçimde atıf yapmadan kısmen veya tamamen kendi eseri gibi göstermek,
• Sahtecilik: Bilimsel araştırmalarda gerçekte var olmayan veya tahrif edilmiş verileri kullanmak,
• Çarpıtma: Araştırma kayıtları veya elde edilen verileri tahrif etmek, araştırmada kullanılmayan cihaz veya materyalleri kullanılmış gibi göstermek, destek alınan kişi ve kuruluşların çıkarları doğrultusunda araştırma sonuçlarını tahrif etmek veya şekillendirmek,
• Tekrar yayım: Mükerrer yayınlarını akademik atama ve yükselmelerde ayrı yayınlar olarak sunmak,
• Dilimleme: Bir araştırmanın sonuçlarını, araştırmanın bütünlüğünü bozacak şekilde ve uygun olmayan biçimde parçalara ayırıp birden fazla sayıda yayımlayarak bu yayınları akademik atama ve yükselmelerde ayrı yayınlar olarak sunmak,
• Haksız yazarlık: Aktif katkısı olmayan kişileri yazarlar arasına dâhil etmek veya olan kişileri dâhil etmemek, yazar sıralamasını gerekçesiz ve uygun olmayan bir biçimde değiştirmek, aktif katkısı olanların isimlerini sonraki baskılarda eserden çıkartmak, aktif katkısı olmadığı halde nüfuzunu kullanarak ismini yazarlar arasına dâhil ettirmek.

Diğer etik ihlal türleri şunlardır:
• Destek alınarak yürütülen araştırmalar sonucu yapılan yayınlarda destek veren kişi, kurum veya kuruluşlar ile bunların katkılarını belirtmemek,
• Henüz sunulmamış veya savunularak kabul edilmemiş tez veya çalışmaları, sahibinin izni olmadan kaynak olarak kullanmak,
• İncelemek üzere görevlendirildiği bir eserde yer alan bilgileri eser sahibinin açık izni olmaksızın yayımlanmadan önce başkalarıyla paylaşmak,
• Bilimsel araştırma için sağlanan veya ayrılan kaynakları, mekânları, imkânları ve cihazları amaç dışı kullanmak,
• Dayanaksız, yersiz ve kasıtlı olarak etik ihlal isnadında bulunmak,
• Bilimsel bir çalışma kapsamında yapılan anket ve tutum araştırmalarında katılımcıların açık rızasını almadan ya da araştırma bir kurumda yapılacaksa ayrıca kurumun iznini almadan elde edilen verileri yayımlamak,
• Araştırma ve deneylerde, çalışmalara başlamadan önce alınması gereken izinleri yetkili birimlerden yazılı olarak almamak,
• Araştırma ve deneylerde mevzuatın veya Türkiye'nin taraf olduğu uluslararası sözleşmelerin ilgili araştırma ve deneylere dair hükümlerine aykırı çalışmalarda bulunmak,
• Bilimsel çalışmalarda, diğer kişi ve kurumlardan temin edilen veri ve bilgileri, izin verildiği ölçüde ve şekilde kullanmamak, bu bilgilerin gizliliğine riayet etmemek ve korunmasını sağlamamak,
• Akademik atama ve yükseltmelerde bilimsel araştırma ve yayınlara ilişkin yanlış veya yanıltıcı beyanda bulunmak.

HAKEMLERİN SORUMLULUKLARI
• Değerlendirdikleri makalelerin eksikliklerini ve bilimsel katkılarını mutlaka bildirmelidir.
• Hakemlik yaptıkları makalelerin gizliliğine aykırı fiiliyatta bulunmamalıdır.
• Değerlendirmelerinde tarafsız olmalıdır.
• Hakemler araştırmayla, yazarlarla ve/veya araştırma fon sağlayıcılar ile çıkar çatışması içerisinde olmamalıdır.

EDİTÖRYAL SORUMLULUKLAR
• Editörler bir makaleyi kabul etmek ya da reddetmek için tüm sorumluluğa ve yetkiye sahiptir.
• Editörler kabul ettiği ya da reddettiği makaleler ile ilgili çıkar çatışması içerisinde olmamalıdır.
• Sadece alana katkı sağlayacak makaleler kabul edilmelidir.
• Hatalar bulunduğu zaman düzeltmenin yayımlanmasını ya da geri çekilmesini desteklemelidir.
• Hakemlerin ismini saklı tutmalıdır ve intihal/sahte veriye engel olmalıdır.

Bilimsel araştırma ve yayın etiğine aykırı davranışlar için bakınız: "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi, Madde 4. Daha detaylı bilgi için ilgili yönergeye tıklayınız.

YAYIN ETİĞİNE AYKIRI DURUMUN TESPİTİ
Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi'ne gönderilen tüm akademik yazılarda yayın etiğine aykırı durumların tespiti için intihal tespit programı kullanılmakta ve yazılar, çift taraflı kör hakemlik usulü üzere en az iki hakem tarafından değerlendirilmektedir.
Okuyucu Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi'nde yayınlanan bir makalede önemli bir hata ya da yanlışlık fark ettiğinde ya da editoryal içerik ile ilgili herhangi bir şikayeti (intihal, yinelenen makaleler vb.) olduğu zaman erhanakkas@sakarya.edu.tr adresine mail atarak şikayette bulunabilir. Şikayetler derginin gelişmesi için fırsat sağlayacağından hızlı ve yapıcı bir şekilde geri dönüş yapılması amaçlanmaktadır.
Dergimize sunulan çalışmalar; kişilerden mülakat, anket, odak grup çalışması, deney vb. yollarla veri toplanmasını ve deneysel ya da diğer bilimsel amaçlarla kullanılmasını öngörüyor ise başvuru öncesinde ilgili kurumun Etik Kurulu'ndan "Etik Kurul Onay Belgesi" alınması zorunlu olup etik kurul iznine dair bilgilendirmenin makale içeriğinde belirtilmesi ya da ek olarak sunulması gerekmektedir. Etik kurul onay belgesinin alınmaması durumunda yayın ön inceleme safhasında yazara iade edilir.

Okuyucu ile İlişkiler
Editör tüm okuyucu, araştırmacı ve uygulayıcıların ihtiyaç duydukları bilgi, beceri ve deneyim beklentilerini dikkate alarak karar vermelidir. Yayınlanan çalışmaların okuyucu, araştırmacı, uygulayıcı ve bilimsel literatüre katkı sağlamasına ve özgün nitelikte olmasına dikkat etmelidir. Ayrıca editör okuyucu, araştırmacı ve uygulayıcılardan gelen geri bildirimleri dikkate almak, açıklayıcı ve bilgilendirici geri bildirim vermekle yükümlüdür.

Yazarlar ile İlişkiler
Editörün yazarlara karşı görev ve sorumlulukları aşağıdaki şekildedir:
• Editör, çalışmaların önemi, özgün değeri, geçerliliği, anlatımın açıklığı ve derginin amaç ve hedeflerine dayanarak olumlu ya da olumsuz karar vermelidir.
• Yayın kapsamına uygun olan çalışmaların ciddi problemi olmadığı sürece ön değerlendirme aşamasına almalıdır.
• Editör, çalışma ile ilgili ciddi bir sorun olmadıkça, olumlu yöndeki hakem önerilerini göz ardı etmemelidir.
• Yeni editör, çalışmalara yönelik olarak önceki editör tarafından verilen kararları ciddi bir sorun olmadıkça değiştirmemelidir.
• Yazarlara açıklayıcı ve bilgilendirici şekilde bildirim ve dönüş sağlanmalıdır.

Hakemler ile İlişkiler
Editörün hakemlere karşı görev ve sorumlulukları aşağıdaki şekildedir:
• Hakemleri çalışmanın konusuna uygun olarak belirlemelidir.
• Hakemlerin değerlendirme aşamasında ihtiyaç duyacakları bilgi ve rehberleri sağlamakla yükümlüdür.
• Yazarlar ve hakemler arasından çıkar çatışması olup olmadığını gözetmek durumundadır.
• Kör hakemlik uygulaması bağlamında hakemlerin kimlik bilgilerini gizli tutmalıdır.
• Hakem havuzunun dinamik şekilde güncellenmesi ve geniş bir yelpazeden oluşması konusunda gerekli adımları atmalıdır.
• Nezaketsiz ve bilimsel olmayan değerlendirmeleri engellemelidir.

Editöryal ve Kör Hakemlik Süreçleri
Editör; dergi yayın politikalarında yer alan Kör Hakemlik ve Değerlendirme Süreci politikalarını uygulamakla yükümlüdür. Bu bağlamda editör her çalışmanın adil, tarafsız ve zamanında değerlendirme sürecinin tamamlanmasını sağlar.

Kalite Güvencesi

Editör; dergide yayınlanan her makalenin dergi yayın politikaları ve uluslararası standartlara uygun olarak yayınlanmasından sorumludur.

Olası Suiistimal İddialarına İlişkin İlkeler ve Görevi Kötüye Kullanmaya Karşı Önlem

• Editör; olası suiistimal ve görevi kötüye kullanma işlemlerine karşı önlem almakla yükümlüdür. Editörün, bu duruma yönelik şikayetlerin belirlenmesi ve değerlendirilmesi konusunda objektif ve titiz bir soruşturma yapma sorumluluğu bulunmaktadır.

• Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi, suistimal ve kötüye kullanma durumlarına karşı, COPE'un "olası kötüye kullanım" durumlarına dair önlemlerini benimser. Bu doğrultuda; yayıncının, editörlerin, hakemlerin, yayın kurulunun ve yazarların yayın öncesi, yayın süreci ve sonrasında olası kötüye kullanım durumlarına karşı yükümlülüklerini Yayın Etiği İlkeleri'nde ayrıntılı olarak anlatır.

• Aynı çalışmanın farklı yayın organlarına gönderildiği durumlarda, farklı dergilere gönderilen aynı çalışmaların farklı versiyonlarını karşılaştırmak, gönderilen çalışmaya ilişkin yazar ve soruşturmacılardan derlenen açıklamaları karşılaştırmak, şüpheli suistimal vakalarında soruşturma için işbirliği yapmak ve çaba harcamak, soruşturmacılara/yazarlara ve/veya kurumlarına yönelik çalışmalarda birlikte hareket etmek gibi faydalar sağlamak amacını taşır.

• Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi, bilimsel yayıncılık sürecinde gizliliğin önemini göz önüne alarak, yazar, alan editörleri ve hakemlere ilişkin bilgileri, sadece araştırmaya dair şüpheli bir suistimali önlemek ve buna cevap verme yükümlülüğünü yerine getirmek amacıyla paylaşır.

• Dergi editörleri şüpheli durumlarda bilgi paylaşımı yapmadan önce ilk sorgulamaları yapmalıdır. Bilgi paylaşımı, sadece, yazarın yanıt vermediği, yanıtının yetersiz olduğu veya muhtemel suistimalden birden fazla derginin etkileneceği düşünüldüğünde söz konusu olur.

• Gerekli görüldüğünde bilgiler, yalnızca konuya ilişkin bilgi sahibi olabileceğine inanılan alan editörleriyle paylaşılır ve paylaşılan bilgiler yalnızca olgusal içerikle sınırlı tutulur.

• Editör, iletişim gizliliğini mümkün olan en geniş ölçüde korumayı taahhüt eder.

Telif Hakkı Düzenlemesi ve Çıkar Çatışması İlkesi

• Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi, paydaşları arasındaki olası çıkar çatışmalarının bilimsel yayın etiğine zarar vereceğini düşünür. Dergi, çıkar çatışmalarını tespit etmek ve önlemek amacıyla tüm paydaşları için yükümlülüklerini tanımlar.

• Yazar, Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi'ne yayın başvurusu yaparken, Telif Hakkı Devir Formu'ndaki hususları kabul ettiğini beyan etmiş olur.

Akademik Yayın Bütünlüğünü Sağlamak

Editör çalışmalarda yer alan hata, tutarsızlık ya da yanlış yönlendirme içeren yargıların hızlı bir şekilde düzeltilmesini sağlamalıdır.

Yapıcılık ve Tartışmaya Açıklık

Editör;

• Dergide yayınlanan eserlere ilişkin ikna edici eleştirileri dikkate almalı ve bu eleştirilere yönelik yapıcı bir tutum sergilemelidir.

• Eleştirilen çalışmaların yazar(lar)ına cevap hakkı tanımalıdır.

• Olumsuz sonuçlar içeren çalışmaları göz ardı etmemeli ya da dışlamamalıdır.

Şikayetler

Editör; yazar, hakem veya okuyuculardan gelen şikayetleri dikkatlice inceleyerek aydınlatıcı ve açıklayıcı bir şekilde yanıt vermekle yükümlüdür.

Politik ve Ticari Kaygılar

Dergi sahibi, yayıncı ve diğer hiçbir politik ve ticari unsur, editörlerin bağımsız karar almalarını etkilemez.

Yayın İlkeleri

1. Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi, ulusal ve uluslararası düzeyde bilimsel nitelikleri taşıyan çalışmaları yayımlayarak İslam ekonomisi alanında bilgi birikimine katkıda bulunmayı amaçlamaktadır.

2. Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi Mart, Temmuz ve Kasım ayları olmak üzere yılda üç kez çift taraflı kör hakemlik uygulamasıyla yayımlanan bir dergidir.

3. Derginin yayın dili Türkçe ve İngilizce'dir.

4. Dergide yayımlanacak makaleler, öncelikle kendi alanlarına uygun araştırma yöntemleri kullanılarak hazırlanmış özgün ve akademik çalışmalar olmalıdır. Ayrıca bilimsel alana katkı niteliğindeki kitap değerlendirmeleri de kabul edilir.

5. Dergimize yapılan gönderiler Ithenticate intihal tespit programı ile taranmaktadır. İntihal tespit edilen yazılar hakem sürecine dahil edilmeden reddedilir.

6. Dergiye gönderilen çalışmalar başka bir yerde yayımlanmış ya da yayımlanmak üzere gönderilmiş olmamalıdır.

7. Gönderilen yazılar öncelikle yazım kurallarına uygunluk açısından incelenir. Yayın ve yazım ilkelerine uyulmadığı görülen yazılar, içerik incelemesine tabi tutulmadan gerekli düzeltmelerin yapılması için yazara iade edilir.

8. Dergiye yayımlanmak üzere gönderilen yazılar, ön incelemesi yapıldıktan sonra yayın kurulu tarafından belirlenen konunun uzmanı hakemlere gönderilir. İki olumlu hakem raporu ile yazının yayımlanmasına karar verilir. İki hakemin olumsuz görüş belirtmesi halinde ise yazı yayımlanmaz. Aynı makale için olumlu ve olumsuz hakem raporları mevcut olduğunda yazı, üçüncü bir hakeme gönderilir.

9. Yayımlanmasına karar verilen yazıların hakem raporlarında "düzeltmelerden sonra yayımlanabilir" görüşü belirtilmişse yazı, gerekli düzeltmelerin yapılması için yazara iade edilir. Düzeltmelerden sonra hakem uyarılarının dikkate alınıp alınmadığı kontrol edilerek yazı yeniden değerlendirilir.

10. Hakemlerin önerileri, eleştiri ve düzeltmeleri yazara hakem adı gizlenerek yollanır; yazarlar hakem görüşüne uymayı kabul etmek yükümlülüğündedir. Yayımlanan çalışmanın bilimsel ve hukuki her türlü sorumluluğu yazarına ya da yazarlarına aittir.

11. Bir sayıda aynı yazara ait en fazla bir çalışma yayımlanabilir. Yayımlanan makaleler için yazara telif ücreti ödenmez.

Ethical Principles and Publication Policy

International Journal of Islamic Economics and Finance Studies (IJISEF) respects the Code of Ethics for protecting the rights of its authors, the journal, and science. As part of publication processes, it involves producing, developing, and sharing information scientifically. By using the scientific method, peer-reviewed articles strive for the greatest degree of objectivity. It is essential that all stakeholders of the publication process, including editors, writers, publishers, referees, and readers, adhere to ethical standards at the point of scientific production. According to the publication ethics and open access policy of the International Journal of Islamic Economics and Finance Studies, all components of the publication process must adhere to ethical principles within the framework of the "Higher Education Institutions Scientific Research and Publication Ethics Directive" and the "Committee on Publication Ethics (COPE)". Click here for detailed information.

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Author's Responsibilities:
• It has been significant that all authors contributed to the research,
• There should be no plagiarism or fraudulent data in the article; all data should be real and authentic;
• Publishing - or sending for publication - the same work in more than one journal is forbidden,
• References should be listed in the bibliography,
• It is important to follow the spelling rules when citing and bibliographing,
• A study should not have a similarity rate higher than 20%,
• It is important that academic studies do not conflict with publishing ethics,
• In the case of a mistake, all authors are obliged to retract or correct it,
• These rules are assumed to be adhered to by the authors.

IN ACCORDANCE WITH ARTICLE IV OF THE SCIENTIFIC RESEARCH AND PUBLICATION ETHICS DIRECTIVE OF HIGHER EDUCATION INSTITUTIONS, THESE ACTIONS CAN BE TAKEN:
• Plagiarism: Presenting someone else's ideas, methods, data, or works as your own, in whole or in part, without attribution according to scientific guidelines,
• Fraud: Using false or misleading data used in scientific research,
• Distortion: To falsify research records or data obtained, to present devices or materials that were not used in the research as if they were, or to alter or modify the results of the research in order to suit the interests of those who receive funds,
• Republishing: Presenting repetitive publications separately in academic appointments and promotions,
• Slicing: Publishing a research's results in more than one issue as separate publications in academic appointments and promotions, violating the integrity of research, and publishing the research in multiple journals.
• Unfair authorship: Including people who do not have active contributions among the authors or not including those who do, changing the order of authors in an unjustified and inappropriate manner, removing the names of contributors who actively contributed from subsequent editions, including their names in the authors by using their influence, even though they did not contribute actively.

Other types of ethical violations include:
• Not mentioning the individuals, institutions, or organizations that support them in publications resulting from research done with support.
• To use thesis or studies that have not yet been presented, defended and accepted as sources without permission,
• Without the author's express permission, share information from a work assigned for review with others before it is published,
• Misusing the scientific research resources, places, facilities, and devices provided or allocated,
• To allege unfounded and deliberate violations of ethical standards,
• To publish the results of surveys or attitude studies conducted within the scope of a scientific study without obtaining the explicit consent of respondents, or, if the research will take place in an institution, without the permission of the institution.
• Having failed to obtain written permissions from authorized units before conducting research or experiments,
• Conducting research or experiments in contrary to Turkey's legislation or international conventions concerning relevant research and experiments,
• To not use the data or information obtained from other persons or institutions in scientific studies to the extent and in the manner permitted, to not maintain confidentiality and not to protect this information,
• To make false or misleading statements in academic appointments or promotions regarding scientific research and publications.

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Reviewers' Responsibilities:
• Reporting the shortcomings and contributions of articles should be a priority for reviewers;
• It is important that they do not violate the confidentiality of the articles,
• It is important to make objective reviews.
• It is important for reviewers not to have any conflict of interest concerning the research, the authors, or the funders.

Editorial Responsibilities:
• Editors are responsible for rejecting or accepting articles,
• Editors should not have conflicts of interest in the articles they reject or accept,
• Accept only articles that will contribute to the field,
• They should promote the publication of a correction or retraction when errors are found,
• They should protect the anonymity of reviewers and prevent plagiarism and fraud.
For actions contrary to scientific research and publication ethics, see: "Higher Education Institutions Scientific Research and Publication Ethics Directive, Article 4 (Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi, Madde 4)". For more information, please click on the link.

Determination of the Situation Contrary to Publication Ethics
The International Journal of Islamic Economics and Finance Studies (IJISEF) uses a double-blind review process by at least two reviewers. Furthermore, all articles are checked by a program to detect publication ethics violations.
In the event that a reader notices an error or an inaccuracy in a paper published in the International Journal of Islamic Economics and Finance Studies (IJISEF) or has any other complaints about editorial content (plagiarism, duplicate papers, etc.), they should contact erhanakkas@sakarya.edu.tr. Complaints provide us with an opportunity to improve, and we aim to respond quickly and constructively.
Studies submitted to our journal include interviews, surveys, focus group work, experiments, etc. An "Ethics Committee Approval Certificate" must be obtained from the Ethics Committee of the relevant institution before the application can be submitted if the data are to be collected in different ways and used for scientific purposes, and the article content or an appendix must include information regarding ethics committee approval. If the ethics committee approval document is not received at the preliminary examination phase, the publication is returned to the author.

Relations with the Reader
Editors should consider the knowledge, skills, and experience expectations of readers, researchers, and practitioners. Published studies should contribute to the reader, researcher, practitioner, and scientific literature and be original. Furthermore, the editor is required to take into account reader, researcher, and practitioner feedback and to provide informative and explanatory responses.

Relations with Authors
Editors are responsible for the following duties towards authors:
• Editors should consider importance, originality, validity, clarity of the narrative, and the aims and objectives of the journal before making a decision.
• Studies suitable for publication should proceed to the preliminary evaluation stage unless there is a serious problem.
• Unless there are serious problems with the study, the editor should not ignore positive referee suggestions.
• Unless there is a serious problem, the new editor should not change the previous editor's decisions regarding the studies.
• The authors should be notified and returned in an informative manner.

Relations with Referees
Editor's duties and responsibilities towards referees are as follows:
• Referees should be chosen according to the study's subject.
• Providing the referees with information and guides during the evaluation process.
• It has to consider whether the authors and the referees are in conflict of interest.
• It is important to keep referees' identities confidential when using blind refereeing practices.
• Ensure that a wide range of reviews is included in the referee pool, and that this pool is dynamically updated.
• A rude and unscientific evaluation should be prevented.

Editorial and Blind Review Processes
Editor; must follow the blind refereeing and evaluation process outlined in the journal's publication policies. In this context, the editor ensures that each work is evaluated in a fair, impartial, and timely manner.

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Quality assurance

The editor is responsible for publishing all articles according to the journal's publication policies.

Principles Regarding Possible Malpractice Claims and Prevention Against Malpractice

• Editors are responsible for taking measures against potential abuse and misconduct. In order to identify and evaluate complaints regarding this situation, the editor must carry out an objective, meticulous investigation.

• The International Journal of Islamic Economics and Finance Studies adopts COPE's guidelines for handling allegations of misconduct. Consequently, the journal defines in details the responsibilities of the publisher, editors, reviewers, the Scientific Board and authors before, during, and after the publication process in Publication Ethics.

• When an article is submitted to several publishers, it is possible to compare versions of a single work submitted to numerous journals and to understand the explanations of authors and enquirers regarding the article, thereby cooperating and making an effort when there is suspected misconduct and violation, and acting in accordance with the inquiry/author's and/or the institution's policies.

• The International Journal of Islamic Economics and Finance Studies shares author and reviewer information only in order to prevent suspected misconduct and fulfill the obligation to handle such cases, given the significance of confidentiality in the scientific publication process.

• It is the responsibility of journal editors and field editors to investigate suspected cases before sharing such information with other parties. Consequently, sharing information only becomes an issue when the author fails to respond, provides an incomplete explanation, or the misconduct allegation affects more than one journal at the same time.

• When necessary, such information is only shared with editors considered knowledgeable about the subject, and the shared information is restricted to factual content only.

• The editors and field editors guarantee to protect the confidentiality of communication as much as possible.

Copyright Regulation and Conflict of Interest Policy

• The International Journal of Islamic Economics and Finance Studies considers that possible conflicts of interest among its stakeholders are detrimental to scientific publication ethics. The journal defines its obligations for all its stakeholders in order to detect and prevent conflicts of interest.

• Authors submitting to International Journal of Islamic Economics and Finance Studies agree to the copyright release terms. Ensuring Academic Publication Integrity

It is the editor's responsibility to ensure that the reviews containing errors, inconsistencies or misdirection in the studies are quickly corrected.

Constructivism and Openness to Discussion

Editor;

• He/she should take into account persuasive criticisms of the works published in the journal and adopt a constructive attitude toward them.

• Authors of criticized works should be allowed to respond.

• It is important not to ignore or exclude studies with negative results.

Complaints

Editor; The author is obliged to carefully examine the complaints from the referees or readers and respond in an enlightening and explanatory manner.

Political and Commercial Concerns

The journal owner, publisher and no other political or commercial factors affect the editors' independent decision making.

Publication Policies

1. International Journal of Islamic Economics and Finance Studies (IJISEF) aims to contribute to the knowledge of Islamic economics by publishing studies with scientific qualifications at national and international level.

2. International Journal of Islamic Economics and Finance Studies (IJISEF) is a journal that uses a double-blind peer-review and publishes three times a year, march, july and november.

3. The publication language of the journal is Turkish and English.

4. The articles to be published in the journal should be original and academic works prepared using research methods suitable for their fields. In addition, book evaluations that contribute to the scientific field are accepted.

5. Submissions sent to the journal have been scanned via a plagiarism software, Ithenticate. Then, if any plagiarism is found, the submission is rejected without sending it to referees.

6. Articles submitted to the Journal should be unpublished elsewhere or be unsent for publication.

7. Articles are examined primarily for compliance with the writing rules. Submissions that are found not to comply with the publication and writing principles are returned to the author for necessary corrections without reviewing the content.

8. The articles submitted to the Journal for publication will be sent to referees who are experts of the subject determined by the Editorial Board after the preliminary examination. With two positive referee reports, to publish the article is decided. If the two referees express negative opinion, the article will not be published. When there are positive and negative referee reports for the same article, the article will be sent to a third referee.

9. If the expression "can be published after corrections" is chosen by referees, the article will be returned to the author for necessary corrections. After the corrections, the article is re-evaluated to check whether referees' warnings are taken into consideration.

10. The recommendations, criticisms and corrections of the referees are sent to the author by hiding the name of the referee. All scientific and legal responsibilities of the published works belong to the author or authors.

11. A maximum of one work of the same author can be published in the same issue. No royalties are paid to the author for published articles.