

Investing in Islamic Stocks: A Wiser Way to Achieve Genuine Interest-Free Finance

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Abstract. A gradual convergence of Islamic finance towards interest-based conventional finance is one of the major concerns in the progress of Islamic finance. An important reason for this one-way convergence in the rates of returns of the two sectors is the dominance of Islamic banking in the composition of the Islamic financial sector. The investment account returns of Islamic banks depend heavily on interest rates. Whereas, Islamic stock markets are argued to be the essential domain to achieve true Islamic finance, since they are based on profit and loss sharing and are not directly dependent on interest rates. We in this paper investigate the relationship between the Islamic stock index and indicative interest rates in Turkey, using the daily data of Participation 30 index returns in Borsa İstanbul (BIST) and interest rates on indicative bonds between the years 2011-2015. We also include the BIST 100 index in the model as the control variable. The results of Maki cointegration test show that Participation 30 index is not cointegrated with interest rates, while the general index of Borsa İstanbul is significantly cointegrated with interest rates. Toda Yamamoto test based on Granger causality analysis shows that no causal relationship exists between interest rates and the Participation 30 Index, while the general index of Borsa İstanbul is influenced by interest rates. The findings provide evidence for the independency of returns on Islamic stock investments from interest rates. This result also proves that the Sharī'ah-compliant firms are less sensitive to interest rates due to their financial structure in which the interest bearing assets and sources are significantly limited.

Keywords: Interest-Free Finance, Dependency on Interest Rates, Islamic Stock Index, Participation Index, Interest Rates.

JEL Classification: G20; G21.

KAUJIE Classification: L41; L43.

1. Introduction

Although the most distinct characteristic of Islamic finance (IF) is its interest free nature, the dependency of Islamic financial instruments and institutions on interest rates has been a widely accepted fact, which constitutes a major controversy. There are many empirical evidences that Islamic bank rates are influenced by interest rates. (See for instance, Kaleem and Isa, 2003; Chong and Liu, 2009; Çevik and Charap, 2011; Sarac and Zeren, 2014). This can basically be explained by the fact that the IF still constitutes a very small proportion of the total financial system, so it has no power to change the rules of the game. Due to its relatively small presence, Islamic financial institutions adopt the prevailing interest rates as benchmarks for their financial instruments. This explanation, however, is not sufficient to have a complete understanding of the issue, nor to develop a sound solution. A wiser way to approach the issue is to look at the structural features of the industry: as in the conventional system, the Islamic financial industry is heavily dominated by “Islamic banks” modelled in the contemporary sense that function as conventional fractional reserve banks. *Sukuk* structures have converged to interest-bearing bonds, rather than income-sharing instruments. These developments move IF away from the risk sharing principle and, ultimately, make IF more dependent on interest rates. In the current setting of the IF industry, it seems unrealistic to make profit-loss sharing (PLS) mechanism as the mainstream practice. As long as the fractional reserve banking practice dominates the IF industry, it does not make too much sense to force Islamic banks to use more PLS instruments. Islamic banks, in the current setting, contribute to the debt accumulation process. As debt financing dominates the global system, interest rates inevitably become a major determinant. Therefore, it is necessary to move towards capital markets – particularly stock market instruments and institutions – in order to achieve true Islamic finance.

Equity financing is considered more suitable to Islamic finance due to its risk sharing feature. It establishes a direct link between capital invested and the consequence of the venture. This feature of it brings about efficiency, effectiveness and better governance in business. Thus, in essence, stock invest-

ment is argued to be ‘more Islamic’ compared to banking products. However, the characteristics of the firm that receives the investment must also be in compliance with Sharī‘ah principles.

Stock investment was not a preferred option among Muslim investors until the late 1990s mainly because of two reasons: First, the heavy manipulations and speculations in the stock exchanges caused many Muslims to think that it resembled gambling, as it involved elements of *gharar*. Therefore, it was not accepted as a desirable Islamic activity. However, this concern has been eliminated by the majority of the Islamic scholars provided that investors and firms avoid such deceptive behaviors. This permission also requires sound regulation and supervision in the capital market against such corrupt practices. Second, the operations of most of the firms traded in the stock exchanges were not Sharī‘ah-compliant. Apart from those firms that produce *harām* products such as alcohol, most firms use interest-bearing financial sources and invest their funds in interest-bearing assets.

Although a number of Sharī‘ah-compliant firms have existed in the capital markets, there were no sound mechanisms to audit, screen and compile a dynamic list of such firms and to establish indices and portfolios based on their stocks. It was 1998 when the first index that included only the stocks of Sharī‘ah-compliant firms were established through the collaboration of Kuwait Finance House and FTSE. Then, Dow Jones Islamic Index was launched in 1999. This index included only those firms whose operations were Sharī‘ah-compliant and the weight of interest-bearing debt within the liabilities was less than 33 percent. Any firm that exceeds this criteria is excluded from the index. Subsequently, other major indices including Standard and Poor’s and the Kuala Lumpur Islamic Index followed this trend. In addition, some institutions such as MSCI Barra, BSE TASIS and Global GCC have many Islamic indices. The first Islamic Index in Turkey was launched in 2011 under the name “Participation 30”. This index is composed of 30 Sharī‘ah-compliant firms traded in Borsa Istanbul. In 2014, a second Islamic index with an extended content was established under the name “Participation 50”.

As Islamic indices have become widespread, academic studies and publications on this matter have begun. Most studies compared the performance on Islamic indices with the performance of conventional counterparts while some focused on Islamic indices alone or their relationship with other indicators. There are very few studies related to the Islamic indices in Turkey due to their relatively recent appearance.

2. Previous Research on Islamic Indices

Naughton and Naughton (2000), one of the initial studies in this matter, explained the difficulties in the development process of Islamic indices.

Hassan (2002) investigated the market efficiency and the risk-return relationship of Dow Jones Islamic Market Index (DJIMI) between 1996 and 2000 using some statistical tests. He found that the DJIMI was efficient and that its returns were distributed normally.

Hakim and Rashidinan (2004) investigated how Dow Jones Islamic Market Index (DJIMI) is related with Wilshire 5000 and treasury bonds with three-year maturity. Their unit-root test showed that both DJIMI and Wilshire 5000 are efficient. In addition, they found that DJIMI is not cointegrated with W-5000 and three-month T-Bills.

Khaled A. Hussein (2004) compared the returns on FTSE Global Islamic Index (FTSEGII) and FTSE All World Index between the years 1996 and 2002. The paper showed that FTSE Global Islamic performed better than FTSE All World Index in bear market. However, it under-performed in bull market. This showed that the former had a significant positive anomaly during bull market period, while the latter outperformed during the bear market period.

In a later research, Hussein (2007) analyzed the returns on DJIMI and FTSEGII by dividing the study period into four sub-periods: introduction period, bull period-1, bear period, and bull period-2. He found that both Islamic indices outperformed their conventional counterparts in the introduction and bull-1 period, while they showed lower performance in the other two periods.

Girard (2008) analyzed the performances of FTSEGII, FTSE Asia Pasific Index, FTSE Islamic America Index and FTSE Islamic Europe Index

using various measures including Jenson, Sharpe, Treynor and Jenson & Fama, and compared the results with those of conventional counterparts. In addition, he tested the cointegration between Islamic indices and conventional ones and found that the two types were cointegrated, contrary to the findings of Hakim and Rashidinan (2004).

Abdul Rahim et al. (2009) investigated the correlation and the level of information transfer among the Islamic indices in Southeast Asia. They found a low correlation between Kuala Lumpur Syariah Index (KLSI) and Jakarta Islamic Index (JII). They also showed that there is a one-way information transfer that influences the return and volatility from KLSI to JII.

Savaşan et al. (2015) tested whether the effect of exogenous shocks on the participation index is permanent using various unit-root tests. Their study provides evidence that such effect is permanent.

3. Empirical Analysis

It is hypothesized that a portfolio that consists of Sharī'ah-compliant stocks should not be significantly influenced by the changes in interest rates because the weight of interest-bearing assets and liabilities are relatively much lower in the financial structures of such firms. In order to empirically test this hypothesis, we investigate the relationship between Participation³⁰ Index and indicative interest rates, along with the BIST100 Index, the main index of the Istanbul Stock Exchange.

3.1 Econometric Model

We use Maki cointegration test and Toda-Yamamoto (TY) test to investigate the relationship between interest rates and the P-30 index, along with the main index of the Istanbul Stock Exchange. Prior to this analysis, we first test for the stationarity of the series through Zivot and Andrews (2002) unit root test, which allows structural breaks. This technique is superior to standard methods such as Augmented Dickey-Fuller test (ADF, Dickey and Fuller, 1979) and PP test (Phillips and Perron, 1988) because these conventional test do not consider the effects of important incidents on the series throughout the study period.

Zivot-Andrews Unit-Root Test. Zivot and Andrews (2002) investigate the existence of unit-root with the structural breaks through three test statistics:

Model A:

$$y_t = \mu + \beta_t + \delta y_{t-1} + \theta_2 DU(\lambda) + \sum_{i=1}^k \delta_i \Delta y_{t-i} + e_t \quad (1)$$

Model B:

$$y_t = \mu + \beta_t + \delta y_{t-1} + \theta_2 DT(\lambda) + \sum_{i=1}^k \delta_i \Delta y_{t-i} + e_t \quad (2)$$

Model C:

$$y_t = \mu + \beta_t + \delta y_{t-1} + \theta_2 DT(\lambda) + \theta_1 DU(\lambda) + \sum_{i=1}^k \delta_i \Delta y_{t-i} + e_t \quad (3)$$

Model A tests the breaks in the constant, Model B in the trend, and Model C in the constant and trend together.

Here, Δy_t is first difference operator, e_t is a white noise disturbance term with variance σ^2 , and $t=1, \dots, T$ is an index of time. The Δy_{t-j} terms on the right-hand side of Equation 1, 2 and 3 allow for serial correlation and ensure that the disturbance term is white noise. DU_t is an indicator dummy variable for mean shift occurring at each possible break date (TB) while DT_t is corresponding trend shift variable. Formally,

$$DU_t = \begin{cases} 1 & \dots \text{if } t > TB \\ 0 & \dots \text{otherwise} \end{cases}$$

$$DT_t = \begin{cases} t - TB & \dots \text{if } t > TB \\ 0 & \dots \text{otherwise} \end{cases}$$

Maki Cointegration Test. Maki (2012) has developed a method to test the cointegration relationship between the series together with five structural breaks. In this method, structural break dates are determined endogenously. The endogenous detection and the high number of structural breaks makes this test stronger than other cointegration tests (Göçer and Bulut, 2015, p. 14).

According to the Maki cointegration test, the null hypothesis indicates the absence of cointegration between the series. The critical values required to

evaluate the result of cointegration are calculated by Maki (2012) and can be done with four different models:

$$Model0: y_t = \mu + \sum_{i=1}^k \mu_i K_{i,t} + \beta x_t + u_t$$

$$Model1: y_t = \mu + \sum_{i=1}^k \mu_i K_{i,t} + \beta x_t + \sum_{i=1}^k \beta_i x_i K_{i,t} + u_t$$

$$Model2: y_t = \mu + \sum_{i=1}^k \mu_i K_{i,t} + yx + \beta x_t + \sum_{i=1}^k \beta_i x_i K_{i,t} + u_t$$

$$Model3: y_t = \mu + \sum_{i=1}^k \mu_i K_{i,t} + yt + \sum_{i=1}^k y_i K_{i,t} + \beta x_t + \sum_{i=1}^k \beta_i x_i K_{i,t} + u_t$$

where x and y show the I(1) variables. Here Model 0 shows the level shift model, while Model 1 is the level shift model with trend, model 2 allows for regime shifts and model 3 allows for trend and regime shifts.

Toda-Yamamoto Causality Test. Toda and Yamamoto (1995) state that investigating the causality relationship between the variables through VAR ($k+dmax$) method with increased lag yields better results. Preliminary tests such as unit-root and cointegration bring too many restrictions on variables and these restrictions distort the relationship between the variables. Toda and Yamamoto (TY) eliminated this problem through their technique, that is, the preliminary tests do not affect the validity of their causality test. The two key parameters of TY are the maximum degree of cointegration ($dmax$) and the most appropriate length of the lag (k) of the VAR model (Yılancı, 2009).

First, using the results of unit-root test, d_{\max} is specified for the variables in the TY process, followed by k for the *VAR* model. Finally, the causality is analyzed through Wald test. The conceptual model is shown as follows:

$$y_t = \gamma_0 + \sum_{i=1}^{k+d_{\max}} a_{1i} y_{t-i} + \sum_{i=1}^{k+d_{\max}} \beta_{1i} x_{t-i} + e_{1t} \quad (4)$$

$$x_t = \gamma_0 + \sum_{i=1}^{k+d_{\max}} a_{2i} y_{t-i} + \sum_{i=1}^{k+d_{\max}} \beta_{2i} x_{t-i} + e_{2t} \quad (5)$$

In model (4) y_t denotes the dependent variable of which the cause is investigated, γ_0 the constant, d_{\max} maximum degree of cointegration of variables, k the lag, a_i and β_i coefficients of lagged values, y_{t-i} and x_{t-i} one-period lags of variables, e_i a zero-mean error term that has identical distribution.

The null hypothesis in model (4) indicates that x does *not* Granger-cause y ($H_0 : \beta_{1i} = 0$). Alternative hypothesis, on the other hand, indicates that x Granger-causes y ($H_1 : \beta_{1i} \neq 0$) (Aydin and Sari, 2014, p. 286).

3.2 Data

Participation Index. Participation-30 (P30) and Participation-50 (P50) indices are composed of Sharī'ah-compliant stocks traded in the National Market (premier tier) of Borsa Istanbul. The index values are calculated and updated every 10 seconds. The selection criteria in terms of Sharī'ah

for both Participation indices is the same. The distinction between the two is based on the market value. That is, the Sharī'ah-compliant stocks are ranked from the highest value to the lowest. The first thirty compose the P30, while the P50 contains the most valuable 50 Sharī'ah-compliant firms. These P30 are monitored quarterly in terms of their compliance with Islamic principles and those firms that fail to comply with such principles are substituted by other appropriate firms in the following period.

There are two essential criteria for a firm to be included in the Participation P30: first, the main activities/products of the firm must comply with Islamic principles. Those firms that are involved in interest-based financial services, gambling, betting, production of alcoholic beverages, pork and other *harām* foods, fire arms, tourism, entertainment, and credit sale of precious metals are not qualified for the Participation Index. The other criterion include certain financial conditions. A firm must comply with the following financial criteria to be included in the Participation Index:

- The ratio of total interest-bearing loans over total market value of the firm must be less than 30 percent,
- The ratio of total interest-bearing financial assets over total market value of the firm must be less than 30 percent,
- In case some subsidiary activities of the firm do not comply with the Sharī'ah, the revenue generated by such activities must be less than 5 percent of the total revenue⁽¹⁾.

(1) Participation 30 Index;
http://www.katilimendeksi.org/subpage/115/index_rules
Accessed: 07.10.2015.

Table (1) List of Companies Included in the Participation-30 Index as of October 2015

STOCK NAME	STOCK NAME
Afyon Çimento	Good-Year
Akçansa	Konya Çimento
Albaraka Türk	Logo Yazılım
Alkim Kimya	Nuh Çimento
Aygaz	Parsan
Bim Mağazalar	Pınar Et ve Un
Bolu Çimento	Pınar Süt
Bursa Çimento	Selçuk Ecza Deposu
Çimsa	Soda Sanayii
Ege Endüstri	Tat Gıda
Ege Seramik	Türk Hava Yolları
Enka İnşaat	Teknosa
Erbosan	Tümosan
Ereğli Demir Çelik	Türk Traktör
Ford Otosan	Ülker Bisküvi

Source: Participation 30 Index.
http://www.katilimendeksi.org/subpage/113/index_companies (Accessed: 07.10.2015).

Purging ratio of impure income (purification ratio) is calculated through a common formula which is also used by Dow Jones and S&P:

$$\text{Purification Ratio} = \text{Dividens} \times \left(\frac{\text{Non-permissible Revenue}}{\text{Total Revenue}} \right)$$

The greater of weighted average or arithmetic average is picked and periodically announced on the Index website⁽²⁾ although the dividends are paid in full amount and the action of purification is left to the discretion of the investors. However, the calculation of index return is based on the capital gain only and does not take the dividend payments into account because the proportion of dividend income constitutes quite insignificant amount of total return, which reflects the propensity of Turkish companies to pay no dividend for long time. Therefore, missing such information does not cause an erroneous calculation.

Interest Rate. Interest rate is considered as the essential measure of the cost of debt financing. Because almost all the debt financing of the firms consists of interest-bearing loans today, change in interest rates have significant impact on firms, especially on highly leveraged firms. As the interest rates increase, their financing expenses are also expected to increase, causing their profitability to fall. This would ultimately be reflected in their stock returns. Changes in interest rates also have greater impact on the asset side of those firms that have invested heavily in interest-bearing financial assets. Since the Sharī'ah-compliant firms are supposed to keep interest-bearing assets and liabilities significantly lower than other firms, they are expected to be less dependent on interest rates, if not totally protected. In our case, therefore, we hypothesize that the effect of interest rate on the stock exchange performance of P30 firms is much less than that on the BIST100 index.

We use the interest rate of government bonds traded in the secondary market, also known as "the indicative interest rate" in the Turkish financial system, due to its high volume and sound price mechanism.

3.3 Descriptive Results

The Basic Statistics. Table 2 exhibits the number of observations, mean and the standard deviation of the three series analyzed. It is worth noting that the lower standard deviation of P30 compared to BIST100 supports the common expectation that Islamic stocks should be less volatile, due to their operational and financial structure.

Performance of P-30 and BIST100. Table 3 shows the annual average returns on P30 and BIST100 through the study period. The compound average growth rate (CAGR⁽³⁾) of P30 was 6.6%, while that of BIST100 was 0.6%.

$$\text{CAGR} = \left(\frac{\text{Ending Value}}{\text{Beginning Value}} \right)^{\left(\frac{1}{\# \text{ of years}} \right)} - 1$$

(3)

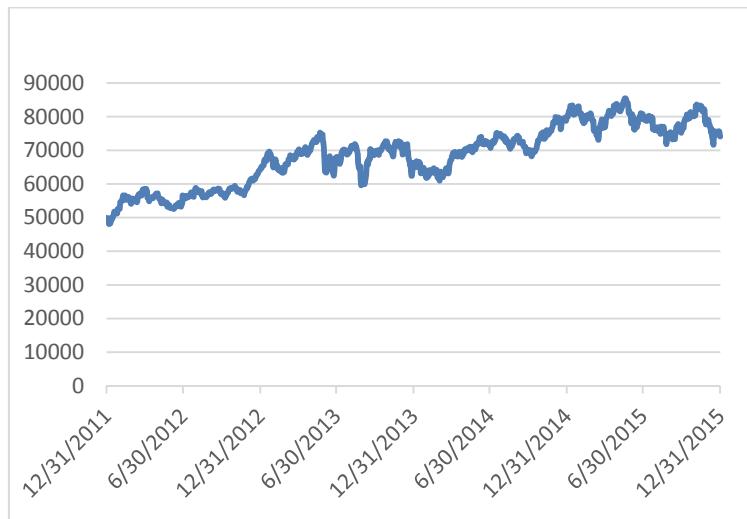
(2) http://www.katilimendeksi.org/subpage/116/index_info.

Table (2) Basic Statistics of The Series

	N	Mean(%)	Std. Deviation(%)
P 30	1258	-0.04	2.74
BIST 100	1258	-0.05	2.85
Interest Rate	1258	8.80	1.52

Table (3) Average Annual Returns of BIST100 and P30 (Percent)

	2011	2012	2013	2014	2015
BIST 100	-26.0	52.6	-13.3	26.4	-16.3
PARTICIPATION 30	-8.7	31.2	1.9	21.9	-7.4

Chart (1) P30 Index Values Throughout the Study Period**Chart (2) Percent Changes of P30 and BIST100 P30 Throughout the Study Period (2011 = 100)**

3.4 Econometric Results

Zivot-Andrews Unit-Root Test. We use Zivot-Andrews (ZA) Unit-root test through Model C which investigates the breaks both in levels and in trends. The optimal lengths of lags are specified according to

Schwarz information criterion. The results in Table 4 show that all three data series have unit root with structural breaks. They become stationary when the first differences are taken. Here, the maximum cointegration levels of the series (d_{max}) is found as 1.

Table (4) Structural Break Dates of The Series

Variable	Model C	
	t statistics	Break Dates
P 30	-4.76229	23.11.2012
BIST 100	-3.95389	01.06.2012
Interest Rate	-4.38272	20.05.2013

Note: The critical values in Model C are -5.57 for 1%; 5.08 for 5%; and -4.82 for 10% significance. Optimal length of the lags are specified according to Schwarz information criterion.

The Result of Maki Cointegration Test. Table 5 exhibits the result of Maki cointegration test. Statistical values show that P30 is not cointegrated with interest rates while BIST100 is cointegrated with

interest rate with 5% significance. In other words, BIST100 and interest rates move together in long term while P30 and interest rates do not move together in long term.

Table (5) Structural Break Dates of The Series

Variables	Statistical Value	Break Dates
P30 - Interest Rates	-6.1766797	09/08/2011, 14/04/2014, 19/12/2014, 14/05/2015
Bist100 - Interest Rates	-7.7987107**	22/03/2012, 15/08/2012, 10/07/2013, 28/02/2014, 01/04/2015

Note: ***indicates that the cointegration is significant at 1% and ** at 5% level. Critical values for five breaks are -8.00, -7.41 and -7.11 for 1%, 5% and 10% significance levels, respectively (Maki, 2012).

The Results of Toda-Yamamoto Causality Analysis. Table 6 exhibits the results of TY causality test. As the figures indicate, the causality relationship between the interest rates and P30 index is found quite insignificant in both directions. In other words, changes in interest rates cannot be qualified as a cause of the return on P30 index. Whereas, the results show

that there is a significant two-way causality from interest rates to BIST100 index. Namely, the interest rates and BIST100 index do cause each other. These findings prove our hypothesis that the Sharī'ah-compliant firms are not affected by interest rates as much as other firms are. As for the causality relationship between P30 and BIST100, no causality is found in both directions.

Table (6) The Results of TY Causality Test

Causality	Lag	χ^2 Statistics and Probability
INTEREST $\not\rightarrow$ P30	p=4	3.462472 (0.4836)
P30 $\not\rightarrow$ INTEREST	p=4	5.707404 (0.2221)
INTEREST \Rightarrow BIST100*	p=4	9.397637 (0.0519)
BIST100 \Rightarrow INTEREST*	p=4	10.68688 (0.0303)

Notes: The numbers in the parentheses show the signficancy. Asterisk next to the variables denotes the existence of significant causality. The p values for appropriate VAR model are specified according to Schwarz information criterion.

4. Summary and Conclusion

This study empirically investigates the assertion that a genuine interest-free financial system is feasible through Sharī'ah-compliant stock markets, rather than through the current Islamic banking system. Econometric analysis of primarily the relationship between Participation 30, the Islamic stock index of Turkey, and the indicative interest rates on Turkish bonds issued to test this hypothesis. The results show that P30 index is not affected by interest rates, whereas the BIST100 index is.

These findings can be explained primarily by two facts: first, the interest-bearing financial assets and liabilities in P30 firms are absent or much less than those of other firms, causing less sensitivity to interest rates. The real asset based investment approach and prohibition of derivative instruments in such firms also decreases the likelihood of their interest risk exposure. The financial performance of P30 firms depends more on their operational activities and natural business cycle. This, subsequently, is reflected by insignificant causality relationship between interest rates and stock prices. The second explanation lies in the investors' perspective. That is, an

increase in bond interest rates may cause the typical investor to sell stocks and invest in bonds. Such an investment behavior, however, is not likely to occur among P30 investors who observe the Islamic criteria. In other words, P30 investors are not likely to shift to bonds in case of a rise in interest rates. This indicates the existence of a market segmentation in Borsa Istanbul – stocks and bonds seem to be substitute investments for BIST100 investors, while they are not so for P30 investors.

Overall, our results support the idea that more emphasis on Islamic stock markets would steer Islamic finance away from the dependency on interest rates and thus, bring about the desired authenticity in Islamic finance. Nevertheless, the necessary condition to achieve this is to make the stock markets really "fair play" fields. That is, current problems with stock markets such as asymmetric information, bad governance and manipulations that converge the stock investments towards gambling must be quickly eliminated. The permanent solution involves both regulative measures and developing a genuine Islamic investment behavior.

References

- Abdul Rahim, F., et al.** (2009), "Information Transmission Between Islamic Stock Indices in South East Asia", *International Journal of Islamic And Middle Eastern Finance And Management*, 2(1), pp. 7-19.
- Aydin, M. and M. Sari** (2014), "Relationship Between GDP And Export In Turkey", *Annals-Economy Series*, pp. 282-288.
- Chong, B. S. and Liu, M. H.** (2009), "Islamic banking: Interest-free or interest-based?", *Pacific-Basin Finance Journal*, 17(1), pp. 125-144.
- Cevik, S. and J. Charap** (2011), "The Behavior of Conventional and Islamic Bank Deposit Returns in Malaysia and Turkey", *IMF Working Paper*, 11(156).
- Dickey, D.A. and W.A. Fuller** (1979), "Distribution of The Estimators For Autoregressive Time Series With A Unit Root", *Journal of the American statistical association*, 74(366a), pp. 427-431.
- Girard, E.C. and Hassan, M. K.** (2008), Is there a cost to faith-based investing: Evidence from FTSE Islamic Indices, *The Journal of Investing*, 17(4), pp. 112-121.
- Gocer, I. and Bulut, S.** (2015), "Effects of changes in oil prices on Russian economy: analysis of cointegration with multiple structural breaks and symmetric causality", *Cankiri Karatekin Universitesi İktisadi ve İdari Bilimler Fakultesi Dergisi*, 5(2), pp. 721-749.
- Hakim, S. and M. Rashidian** (2004), "Risk And Return of Islamic Market Index", *Makalah Seminar Di Malaysia*.
- Hassan, M.K.** (2003), Risk, Return And Volatility of Faith-Based Investing: The Case of Dow Jones Islamic Index, in *Islamic Finance: Dynamics and Development: Proceedings of the Fifth Harvard University Forum on Islamic Finance*, Cambridge, Massachusetts: Center for Middle Eastern Studies, Harvard University, pp.43-67.
- Hussein, K.** (2004), Ethical Investment: Empirical Evidence From FTSE Islamic Index, *Islamic Economic Studies*, 12(1), pp. 21-40.
- Hussein, K.A.** (2007), "Islamic investment: Evidence From Dow Jones And FTSE Indices", in Munawar Iqbal, Salman Syed Ali and Dadang Muljawan (eds.), *Advances in Islamic Economics and Finance* (pp. 387-401), Jeddah: IRTI, IDB.
- Kaleem, A. and Isa, M.** (2003), Causal Relationship Between Islamic And Conventional Banking Instruments In Malaysia, *International Journal of Islamic Financial Services*, 4(4).
- Maki, D.** (2012), "Tests for cointegration allowing for an unknown number of breaks", *Economic Modelling*, 29(5), pp. 2011-2015.
- Naughton, S. and Naughton, T.** (2000), "Religion, ethics and stock trading: The case of an Islamic equities market", *Journal of Business Ethics*, 23(2), pp. 145-159.
- Participation 30 Index**,
http://www.katilimendeksi.org/subpage/115/index_rule, Accessed: 07.10.2015.
- Participation 30 Index**,
http://www.katilimendeksi.org/subpage/116/index_inf, Accessed: 23.01.2017.
- Phillips, P.C. and P. Perron** (1988), "Testing for a unit root in time series regression", *Biometrika*, 75(2): pp. 335-346.
- Sarac, M. and F. Zeren** (2014), "The dependency of Islamic bank rates on conventional bank interest rates: further evidence from Turkey", *Applied Economics*, 47(7), pp. 669-679.
- Savasan, F., F. Yardimcioglu and F. Beşel** (2015), "The Effect of Exogenous Shocks on Participation Index of Borsa Istanbul: Permanent or Temporary?", *International Journal of Islamic Economics and Finance Studies*, 1(1), pp. 81-92.
- Toda, H.Y. and T. Yamamoto** (1995), "Statistical Inference In Vector Autoregressions With Possibly Integrated Processes", *Journal of Econometrics*, 66(1), pp. 225-250.
- Yılancı, V.** (2009). "Yapısal Kirilmalar Altında Türkiye İçin İşsizlik Histerisinin Sınanması" (Analyzing The Unemployment Hysteresis For Turkey Under Structural Breaks), *Doğuş Üniversitesi Dergisi (Dogus University Journal)*, 10(2), pp. 324-335.
- Zivot, E. and D.W.K. Andrews** (2002), "Further evidence on the great crash, the oil-price shock, and the unit-root hypothesis", *Journal of Business & Economic Statistics*, 20(1), pp. 25-44.

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الاستثمار في الأسهم الإسلامية: طريقة أكثر حكمة لتحقيق تمويل حقيقي خال من الفائدة

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المستخلص. يُعد التقارب التدريجي للتمويل الإسلامي تجاه التمويل التقليدي القائم على الفائدة أحد المخاوف الرئيسية في تقديم التمويل الإسلامي. ومن الأسباب المهمة لهذا التقارب أحادي الاتجاه في معدلات عوائد القطاعين هيمنة المصارف في تكوين القطاع المالي الإسلامي. تعتمد عائدات حسابات الاستثمار في المصارف الإسلامية بشكل كبير على أسعار الفائدة. بينما تعتبر أسواق الأسهم الإسلامية مجالاً أساسياً لتحقيق التمويل الإسلامي الحقيقي، لأنها قائمة على المشاركة في الأرباح والخسائر ولا تعتمد بشكل مباشر على أسعار الفائدة. تعالج هذه الورقة العلاقة بين مؤشر الأسهم الإسلامية وأسعار الفائدة الإرشادية في تركيا، باستخدام البيانات اليومية لعائدات مؤشر المشاركة ٣٠ في بورصة اسطنبول ومعدلات الفائدة على السنديات الإرشادية خلال الفترة (٢٠١٥-٢٠١١)، إضافة إلى استخدام مؤشر بورصة اسطنبول ١٠٠ في النموذج كمتغير التحكم. وتظهر نتائج اختبار التكامل المشترك "ماكي" أنه لا يوجد تكامل مشترك بين مؤشر المشاركة ٣٠ وأسعار الفائدة، في حين أنه يوجد بشكل كبير بين المؤشر العام لبورصة اسطنبول وأسعار الفائدة. وأظهر اختبار "تودا ياماموتو" المستند على تحليل السببية غرانجر عدم وجود علاقة سلبية بين أسعار الفائدة ومؤشر المشاركة ٣٠، في حين أن المؤشر العام لبورصة اسطنبول يتأثر بأسعار الفائدة. وتقدم النتائج أدلة على استقلالية العائدات على استثمارات الأسهم الإسلامية من أسعار الفائدة. وتثبت هذه النتيجة أيضاً أن الشركات المتوفقة مع الشريعة الإسلامية أقل حساسية لمعدلات الفائدة بسبب هيكلها المالي الذي يُجتنب فيه الأصول والمصادر الربوية بشكل كبير.

الكلمات الرئيسية: تمويل بلا فوائد، الاعتماد على أسعار الفائدة، مؤشر الأسهم الإسلامية، مؤشر المشاركة، أسعار الفائدة.