The Role of Country Risk on Estimating of Share Earnings: An Application on Commercial Banks Registered to Istanbul Stock Exchange (BIST)[1]

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Abstract

The estimation of share values and earnings is of extreme importance for investors. For this reason, it is necessary to appropriately determine and identify the factors which may affect share earnings. These factors may also be at the micro level, as well as macro level. The main purpose of this study is to examine the effect of country risk on return on equity of 12 commercial banks that are active in banking sector and publicly-traded in Istanbul Stock Exchange (BIST). The study covers an 11-years period between 2003 and 2013. In the same period, a quarterly financial data of the banks selected and the country risk premium obtained from the International Country Risk Guide (ICRG) were tested using panel data analysis. The empirical results reveal that country risk, financial risk and political risk adversely affect return on equity.

Keywords: Country Risk, Economic Risk, Political Risk, Financial Risk, Share of Earnings

1. Introduction

In today's capital markets, the impact of foreign capital on economic development, thanks to globalization, has become more understandable. In order to develop cross-border economic relations and attract foreign capital, countries seek for more profitable markets in the international arena. This provides investors with contributions such as new job opportunities in different sectors and increasing exports. However, while trying to make a profit on cross-border investments, investors must endure increasing risks and encounter country risk arising from their investments. Country risk, one of the systematic risk sources, defined as the capacity of any country to be invested or accredited to pay external debts, is a key indicator used to measure a country's potential to meet financial obligations and economic, political, social and financial situation it has.

As it directly affects businesses located in countries, country risk also affects foreign investors who have trade relations with businesses in a country or plan to invest in a country (Gunaydin, 2006: 1). A rapid capital flow to the international markets under the influence of globalization lays the groundwork for the enterprises to expand competitive environment within their countries and take part in the international competition environments. To grow and obtain more profits, businesses operating in international markets have to take economic, political, financial risks countries they invest in have. While international trade may result that businesses grow and expand rapidly in a short time, it may also cause them go bankrupt very quickly due to the country risks they may face.

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Such conditions lead to researchers to study and identify the factors which are thought to be effective on firm value and the financial success or failure of businesses. Thus, country risk and the impact of country risk on firm value and share earnings have turned out to be one of the most important research topics in finance literature. The stocks are one of the riskiest financial investment instruments. Therefore, investors are required to scrutinize and analyze company-specific risk factors in order to be protected from risks when investing in equities and achieve higher earnings.

Both the results of studies in recent years and the findings obtained in this study reveal that investors and enterprises operating in a country's capital market are affected positively or negatively as a result of an increase or decrease of that country's risk. Owing to the fact that country risk influences firms' value and thus quotes, prices and earnings of the stocks exported by the firms, country risk should be added to the factors affecting the share prices. In this case, the investors who will invest in equities of companies will take the country risk into consideration in their investment decisions. In addition to this, there exist various factors that affect the share prices. Predicting stock performance especially by means of financial statements and financial ratios derived from the balance sheets of the firms is one the methods often used. Banking sector, which forms the basis of a financial system, is quite sensitive to the economic, political and financial risk factors a country has. Therefore, it is of great importance to include country risk premium in the analysis when studying the factors affecting share earnings in the banking sector, the main subject of this paper. This paper strives to investigate and reveal how country risk and its components counted among the macro factors affect share earnings.

2. Literature

The stocks are one of the riskiest investment instruments among financial instruments. Therefore, investors should analyze the financial situation of the companies they will invest in stocks in order to make a profit. The evaluation of the factors such as liquidity, financial structure and efficient use of the assets, profitability and stock exchange performance status specific to the enterprises provides information for investors in terms of what the real value should be for the shares related to companies. The idea that share prices can be predicted to a large extent by means of using financial ratios reflecting the actual financial status of the firms (Tesfatsion, 2004; Buyuksalvarci, 2010) has led investors and academics to investigate and identify the relations between the financial ratios and share earnings. Even though there exist umpteen researches to measure the effect between share earnings and financial ratios in developed markets, such studies are limited in developing markets (Chun Hong, 2008). On the other hand, the literature on the predictability of stocks has increased significantly since 1980 (Lewellen, 2004). There is a consensus in the literature that share earnings are closely related to and significantly affected by the country risk. For this reason, it seems to have great importance to include country risk premia as well as the financial ratios in the analysis when estimating share earnings. In literature, the accepted opinion about the relationship between share earnings and the country risk is that the increase in country risk adversely affects the share prices.

Martikainen (1989) found out in his study that higher profitability and lower financial leverage tend to increase the market value of the company. Ou and Penman (1989) revealed that financial ratios such as profitability, size, financial leverage, cash flow and liquidity have potential to significantly explain future changes on returns. Erb, Harvey and Viskanta (1996) in their study in 117 countries have found a negative relationship between the country risk and share prices. Bekaert (1995), Bekaert and Harvey (1997) have found that an increase in political risk decreases the market performance and reduces rates of return. Richards and Deddouch (1999) investigated the effect of country risk on the market value of the banks by using bank data in emerging markets, but failed to find out a statistically significant relationship. Mukherji, Dhat and Kim (1997) concluded in their study that there is a positive relationship between annual stock returns and market value / book value ratio, sales / price ratio and financial leverage, and a negative correlation with firm size. Bansal and Dahlquist (2001) used the ICRG economic risk premium and financial risk premium variables in 9 countries and concluded that these variables have a negative impact on the stocks. Hassan et al. (2003) revealed in their study focusing on the period between 1984-1999 in ten Central Asia and African countries using the GARCH method that country risk has a significant effect on stock market volatility and returns estimation. Damodaran (2003) identified that the country risk, as well as other risks, has a significant impact on the firm values. Bekaert and Harvey (2003) and Mateus (2004) concluded in their studies on stock returns that the increase in country risk would reduce rates of stock return. Omran and Ragab (2004) utilized 10 financial ratios to measure the companies' liquidity, efficient use of assets, profitability, financial structure and their conditions to meet stable liabilities in their research.

According to the findings of the linear model they structured in their research, they found out that there exists a significant correlation between profitability and stock returns. Zhang and Zhao (2004) revealed in their study in the Chinese capital market that the political risk, one of the country risk components, was found to be significantly effective on the firm value.

Kalayci and Karataş (2005) revealed as a result of their research that stock returns were explained by the profitability, stock market performance and productivity rates. Yaprakli and Gungor (2007) observed in a similar way in their study covering the years between 1986 and 2006 in Istanbul Stock Exchange (IMKB) that the economic, political and financial risk premiums they obtained from ICRG adversely affected the market value of the shares. Sabal (2008) advocated that country risk was added to the CAPM model and this condition changed cash flow and thus affected the firm values. Aktas (2008) found out relationships between on share earnings and cash flow / equity capital, gross profit / sales and net profit / sales ratios provided from acid test and operations in different periods in his study. Rayan (2008) provides proofs in a research carried out in companies in South Africa regarding the fact that an increase in the financial leverage is negatively correlated with the firm value. Dehuan and Jin (2008) utilized annual stock returns as dependent variable and total asset turnover, changes in earnings per share, profit margin, active profitability, return on equity and profitability in sales as independent variables in their study. As a result, it was found out that the above-mentioned independent variables appeared to have a significant effect on share earnings for the first two-year period in the research. As a result of their study examining the relationship between stock returns and financial ratios, Moderes, Saijad and Mozhgan (2008) discovered a significant relationship between excess returns and active profitability, profit margin and price / earnings ratios. Ege and Bayrakdaroglu (2009) revealed as results of their study focusing on performance of stock yields that price/Earnings Ratio, Cash Ratio and Total Assets Turnover Rate were found to be as important independent variables in explaining stock yields.

Birgili and Duzer (2010) concluded that the firm's liquidity status, financial structure and stock exchange performance were found to be quite effective on the enterprise value, as a result of their study investigating the relationships between firm value and the financial ratios. As a result of their research to test the impact of debt / equity ratio on the stock value by taking companies from different industries into account, Chowdhury and Chowdhury (2010) revealed that an enterprise could increase the market value of its stocks by modifying the components of its capital structure. Sim et al. (2011) revealed that the hypothesis regarding the idea that stocks having similar financial ratios will have similar price movement through years is valid. Cai and Zhang (2011) found that any change in company's leverage ratio has a significant and negative impact on the share price. Karaca and Basci (2011) found out in their study carried out to determine the ratios affecting stock performance that net profit margin, operating profit margin, turnover of assets and equity turnover ratios were found to be statistically significant in explaining share earnings. Aydemir, Ogel and Demirtas (2012) observed as a result of their research that profitability, indebtedness and liquidity ratios have a positive effect on stock returns. However, these researchers also indicated that operating ratios do not affect stock return and financial ratios have a less effect in determining the stock returns.

3. Methodology

3.1. Data and Method

In the study was utilized panel data analysis as and econometrics method in order to reveal whether there exists a statistically significant relationship between share earnings and country risk and, if there is, to find out the direction and degree of such relationship. The survey covers an 11-year period between 2003 and 2013. Firms subject to this research are composed of 12 commercial banks which published quarterly data for 44 times, as of 3-months periods within 11 years and have been operating as listed companies in Istanbul Stock Exchange BIST 100 Index. The data used in this study are economic, political and financial risk premiums, financial ratios of banks and return on equity variables. Econometric studies are generally analyzed by means of time-series analysis and cross-sectional data analysis methods. While time dimension is taken into consideration – namely, the values of the variables within a time interval are also focused – in studies regarding time-series, in the cross-sectional studies were compared and contrasted different variables only in a single time point. The analyses using a combination of the time-series and cross sectional data are called "Panel Data Analysis". In other words, the panel data combine time-series and cross-sectional data and consist of data sets on the same unit at different time intervals (Wooldridge, 2009). Panel data method has been quite frequently used in econometric studies recently.

One of the significant causes of the increase in interest in the panel data method in studies is that it is possible to use both time-series and cross-sectional data concurrently in panel data set. This provides an opportunity to use more information and an increase in degree of freedom in the research. Therefore; it is provided an increase in the number of observations, more variability is added to the relationship and the multicollinearity problem is eliminated (Baltagi, 2005). Another reason is the desire to control individual specific effects, which cannot be observed and may be associated with other variables in the model, when determining the economic relationship in a model (Hausman and Taylor, 1981). Owing to the fact that data set created within the scope of the research on account of these reasons includes time-series and cross-sectional data concurrently, panel data analysis was preferred and utilized in this research. Dynamic panel data models are created in cases lagged values of the dependent variables are included into the research model as explanatory variables in panel data. This study utilizes Generalized Method of Moments (GMM), one of the dynamic panel estimation methods and developed by Arellano-Bond (1991), and Random Effects Model (REM) method. Autoregressive panel data model with one lag is shown as follows:

$$y_{it} = y_{it-1} + \beta Xit + viti=1,2,..,N \quad t=1,2,….,T \ (1)$$

Here, $v$it = μ_{it} + uit. In Formula (2), one-lagged value of the dependent variable plays a part in the model as an independent variable. For the formula above, while *i* subscript represent the cross-sectional dimensions such as household and country, *t* stands for time-series dimension. In the equation, y_{it} shows dependent variables in the model and X_{1it} represents independent variables (Baltagi, 2005). The basic panel data regression model which congregates the cross-sectional and time-series data and is used to analyze the relationships between independent and dependent variables is displayed in a simple format as follows (Greene, 2002):

$$y_{it}=\alpha_i +\beta_1 X_{1it}+ \varepsilon_{it} \qquad i=1,2,..,N \qquad t=1,2,….,T \qquad (2)$$

For the formula above, while *i* represent the cross-sectional dimensions such as household and country, *t* stands for time-series dimension. In the equation, y_{it} shows dependent variables in the model and X_{1it} represents independent variables, ε_{it} error term and α_i fixed intersection coefficient. The validity of the results of the Generalized Method of Moments (GMM) developed by Arellano-Bond (1991) can be accomplished by two different methods. The first test is Sargan test and the second is the 1st and 2nd order autocorrelation test (İskenderoglu, Karadeniz and Atioglu, 2012: 291-311). Sargan test is a test to find out whether the instrumental variables, proposed by Arellano & Bond (1991) and used in the model, are used completely and accurately. Arellano-Bond (AB) test, a 1st and 2nd degree autocorrelation test a proposed by Arellano-Bond (1991), though, means the same as to test the basic hypothesis that "There is no second-degree autocorrelation" for the remnants of the first-difference model. According to the results to be obtained, 2nd degree autocorrelation is expected to be insignificant. Models which do not have second-degree autocorrelation are appropriate models (Tatoglu, 2012: 99-101). In addition, whether model estimations in Dynamic Panel Data Model (GMM) studies are carried out accurately or not can be examined by means of the Wald test (Roodman, 2006).

Two basic methods are used for panel data estimation. The first of these models is a model, called "Fixed Effects Model", that allows obtaining different fixed coefficients for each of the cross-sectional unit. Fixed Effects Model (FEM) creates a different fixed value for each cross-sectional unit. It is assumed in the fixed effects model that the slope coefficients indicated by β do not change, but constant coefficients change only between cross-sectional data or time-series data, or in both data. In other words, when there is a difference between sections in the panel data set, in case there is no time-dependent differentiation, this regression model is called one-way and section-dependent fixed effects model. The second method used in panel data estimation is "Random Effects Model". Random effects model (REM) comes into question in case changes occurring depending on sections and time are included in the model as a component of the error term. The superiority of the Random Effects Model to the Fixed Effects Model is explained by the fact that the degree of freedom is eliminated in these models. Besides, the Random Effects Model also allows including effects other than the sample in the model (Hsiao, 2002). One of the important issues to be decided in panel data analysis methods is to determine whether to use fixed effects models or random effects models. Whether to choose Random Effects Model or Fixed Effects Model for the panel data analysis can generally be determined by means of a test statistic proposed by Hausman. Hypotheses of the Hausman test statistics are as follows:

H0: E ($\varepsilon_{it}|X_{it}$) =0 Cross-sectional data and time-series effects are random, there is no correlation.
H1: E ($\varepsilon_{it}|X_{it}$) =0 Cross-sectional data and time-series effects are constant, there is correlation.

3.2. Research Model and Variables

Panel data analysis method used as the econometric method in the study was carried out with 5 different models. The variables used in the models are divided into three groups. These are dependent variables, independent variables and control variables. The share of earnings (SOE) is used as the dependent variable in all models.

Data required to calculate the share of earnings (SOE) of 12 commercial banks, which were used as dependent variables, were obtained from the BIST website. The independent variables are economic risk premium (ERP), financial risk premium (FRP), political risk premium (PRP) and country risk premium (CRP) respectively. All of these risk premiums were obtained from ICRG (International Country Risk Guide) which is adopted reliable and quite often used in recent studies. As control variables in the model, though, were used financial ratios of the banks. As the financial ratios were utilized return on assets (ROA), return on equity (ROE), the ratio of the sum of Deposits and Received Loans to Total Assets (DRLTA), the ratio of received loans to total assets (RLTA), the ratio of non-performing loans to total assets (NPLTA), bank's size (TA), bank's net profit (NP), bank's deposits (BD) and bank's liabilities (DEPT) variables. Data necessary to calculate the control variables obtained from The Banks Association of Turkey and the Public Disclosure Platform (KAP) websites. The models used in the study are as follows:

Model 1. The effect of country risk on share earning rates

$$SOE_{it-1} = \alpha_{it} + \beta_1 ROA + \beta_2 RLTA + \beta_3 ROE + \beta_4 CRP + \lambda_t + \varepsilon_{it} \quad (3)$$

Model 2. The effect of country risk on share earning rates

$$SOE_{it-1} = \alpha_{it} + \beta_1 NPLTA + \beta_2 CRP + \lambda_t + \varepsilon_{it} \quad (4)$$

Model 3. The effect of financial risk on share earning rates

$$SOE_{it-1} = \alpha_{it} + \beta_1 ROA + \beta_2 RLTA + \beta_3 FRP + \lambda_t + \varepsilon_{it} \quad (5)$$

Model 4. The effect of economic risk on share earning rates

$$SOE_{it-1} = \alpha_{it} + \beta_1 ROA + \beta_2 TA + \beta_3 ERP + \lambda_t + \varepsilon_{it} \quad (6)$$

Model 5. The effect of political risk on share earning rates

$$SOE_{it} = \alpha_{it} + \beta_1 TA + \beta_2 NP + \beta_3 DEPT + \beta_4 BD + \beta_5 DRLTA + \beta_6 NPLTA + \beta_7 PRP\ \mu_{it} + \varepsilon_{it} \quad (7)$$

In this study were utilized economic, financial and political risk premiums calculated by ICRG. ICRG calculates country risk on the basis of 22 distinct indicators. Five of these indicators are for economic risk, five are for financial risk and the remaining twelve indicators are used to calculate the political risk. The highest value in the calculation of economic and financial risk premiums is "50" and the minimum value is "0". While the highest value "50" indicates the lowest potential risk for the aforesaid risk factor, the minimum value "0" represents the highest potential risk for the risk factor. When calculating the political risk premium, the maximum value is "100" and the minimum value is "0". As the risk premium decreases, the political risk increases. The country risk premium, though, can be calculated using the following formula to include a combination of these three risks.

$$CRP = 0,5\ (ERP + FRP + PRP) \quad (8)$$

A description of the control variables used in the study are presented in Table 1. In the country risk premium (CRP) calculated by the Formula (9), the weight of the political risk is 50%, and that of the financial and economic risks is 25% each. The maximum value for each risk premium in the calculation indicates the lowest risk (ICRG, 2013). The control variables used in the study, calculation methods and abbreviations are presented in Table 1.

Table 1: The Control Variables, Calculation Methods and Abbreviations

Control Variables	**Calculation Method**
ROA	Net Profit / Total Assets
ROE	Net Profit / Equity
DRLTA	Deposits + Received Loans / Total Assets
RLTA	Received Loans / Total Assets
NPLTA	Non-performing Loan / Total Assets
TA	*Log* (Total Assets)
NP	*Log*(Net Profit)
BD	*Log*(Bank Deposits)
DEPT	*Log*(Dept)

The control variables we used in models structured in panel data analysis were used in many studies as a control variable in the finance literature. Some of the studies using these variables are shown in Table 2.

Table 2: Some of the Studies Using the Control Variables in the Model

Control Variables	Studies
ROA	Amato & Wildor, (1985); Glancey, (1998); Fitzsimmons, Steffens & Douglas, (2005); Asimakopoulous, Samitas & Papadogonas, (2009); Vijayakumar & Devi, (2011); Kouser, et al. (2012); Delmar, McKelvie & Nennberg; (2013); Albayrak & Akbulut, (2008); Poyraz, (2012); Acaravcı (2004), Demirhan (2009), Güloğlu & Bekçioğlu(2001), Kabakçı (2007), Karadeniz (2008), Turan (2006); Çakır & Küçükkaplan, (2012); Ayrıçay & Türk, (2014)
ROE	Albayrak & Akbulut, (2008); Poyraz, (2012); Kabakçı (2007), Başaran (2008); Çakır &Küçükkaplan,(2012)
DRLTA	Naceur & Goaied (2001), Bashir (2003), Pratomo & Ismail (2006), Kosmidou (2007); Ünlü, Bayrakdaroğlu & Şamiloğlu, (2011)
RLTA	Naceur&Goaied, (2001); Bashir (2003), Pratomo&Ismail (2006), Kosmidou (2007)
NPLTA	Ganioğlu&Us, (2014), Koyuncu &Saka, (2011); Kurtaran Çelik, (2010)
TA	Hall & Weiss, (1967); Sumeuls & Smyth, (1968); Ammar, Hanna, Nordheim & Russell, (2003); Rahaman, (2011); Kouser et al., (2012); Wu &Yeung, (2012); McConel & Servaes, (1990); Tunaboylu, (2008); Chen (2004), Frank &Goyal (2009), Kabakçı (2007), Turan (2006); Kar &Pentecost (2000)
NP	Albayrak & Akbulut,(2008); Poyraz, (2012)
BD	Vurur & Özen, (2013); Chang et al.(2010); Kar & Pentecost (2000)
DEPT	Düzer, (2008); Aygün, (2012)

4. Findings

The results of the model were analyzed and evaluated in three separate titles; namely, the interpretation of descriptive statistics, the interpretation of relationships between variables and the main regression results of model application respectively.

4.1. Descriptive Statistics

Descriptive statistics for the variables in the model are presented in Table 3.

Table 3: Descriptive Statistics for the Variables

Variables	Number of Observations	Mean	Standard Deviation	Minimum Value	Maximum Value
SOE	465	.4699939	3.457932	-13.51546	68.86929
ROA	525	.0116363	.0095651	-.0069	0.1255436
ROE	525	.110692	.1154467	-.1492595	1.786366
DRLTA	525	.7451813	.0629098	.2040403	1.158133
RLTA	525	.1200128	.0594579	.0099356	0.5790664
NPLTA	524	.024702	.0150618	.001563	0.1299156
TA	525	7.360685	.6101192	6.013143	8.383131
NP	522	5.314369	.8062078	2.705864	6.563357
BD	525	7.153194	.6025754	5.792807	8.085782
BORC	525	7.30922	.6093446	5.962065	8.333899
ERP	528	32.92045	2.876872	26.5	36
FRP	528	32.86364	2.124307	27.5	37
PRP	528	61.125	4.659721	54	70.5
CRP	528	63.45455	2.45603	56.5	68.5

When country risk variables are examined, the arithmetic means for economic risk premium, financial risk premium, political risk premium and country risk premium were found to be 32.92, 32.86, 61.12 and 63.45 respectively. According to the results presented in Table 3, taking the mean values for the base, it can be inferred and said that the political risk is moderate, country risk signifies '*moderate risk group*' while the economic and financial risks are high in the corresponding period in Turkey.

4.2. The Interpretation of Relationships between Variables

The correlation matrix between variables explaining dependent variable in the model is presented in Table 4.

Table 4: The Correlation Matrix Regarding the Variables

	SOE	ERP	FRP	PRP	CRP	TA	DRLTA	ROA	ROE	RLTA	NPLTA	NP	BD	DEPT
SOE	1,000													
ERP	-0,0023	1,000												
FRP	-0,0008	0,0711	1,000											
PRP	0,1073	-0,3200	-0,1379	1,000										
CRP	0,0988	0,3189	0,3704	0,6865	1,000									
TA	-0,0377	0,2852	0,1178	-0,3817	-0,1366	1,000								
DRLTA	-0,0114	-0,1105	-0,1828	0,2296	0,0667	-0,3606	1,000							
ROA	0,4138	0,0100	0,0551	0,1047	0,1292	0,2255	0,0632	1,000						
ROE	0,5707	-0,0049	0,0052	0,1088	0,1015	0,0041	0,0017	0,6880	1,000					
RLTA	-0,0485	0,1206	-0,1165	0,2290	0,2320	-0,1683	0,3488	-0,0223	-0,0661	1,000				
NPLTA	0,0461	-0,0204	0,0996	-0,1497	-0,1067	-0,2170	-0,0616	-0,0403	0,0909	-0,4051	1,000			
NP	0,0483	0,2709	0,1320	-0,2886	-0,0512	0,9128	-0,2426	0,5071	0,0928	-0,1180	-0,2083	1,000		
BD	-0,0359	0,2717	0,1131	-0,3840	-0,1488	0,9956	-0,3037	0,2342	0,0088	-0,2114	-0,1958	0,9126	1,000	
DEPT	-0,0358	0,2866	0,1123	-0,3788	-0,1342	0,9997	-0,3533	0,2259	0,0062	-0,1649	-0,2203	0,9126	0,9956	1,000

When the findings regarding the correlations between the country risk premiums in Table 3 are analyzed, it is observed that there exists a positive correlation at a degree of 0, 31 between the country risk and economic risk premium and a positive correlation at a degree of 0,37 between country risk and financial risk premium while it is found to be a positive correlation at a degree of 0,67 between the country risk and the political risk premium.

4.3. The Main Regression Results of Model Application

The results obtained as a result of the testing of models structured regarding the effects of country risk on the share earning rates between the years 2003 and 2013 by means of panel data analysis are presented in Table 5.

Table 5: Panel Data Analysis Results

SOE was used as a dependent variable in all models.	MODEL 1 GMM	MODEL 2 GMM	MODEL 3 GMM	MODEL 4 GMM	MODEL 5 RE(AL)
SOE_{-1}	-0.912*** (0.030)	-0.060 (0.047)	-0.340** (0.155)	-0.336** (0.144)	
ROA	34.341 (49.025)		243.98*** (22.047)	227.83*** (24.088)	
ROE	3.70*** (4.00)				
DRLTA					-9.969** (4.161)
RLTA	-1.552 (4.651)		-4.520 (13.405)		
NPLTA		32.072** (15.575)			14.094 (13.640)
TA				4.761 (4.857)	-43.13*** (13.518)
NP					2.484*** (0.495)
BD					4.770 (4.070)
BORC					35.161*** (12.543)
ERP				0.090*** (0.021)	
FRP			-0.066** (0.031)		
PRP					0.067* (0.042)
CRP	0.137** (0.041)	0.231*** (0.078)			
Cons					16.667** (7.147)
Group Number	12	12	12	12	12
Number of Observations	441	441	441	441	462
Wald χ^2 (prob)	0.0000	0.0069	0.0000	0.0000	0.0000
Sargan χ^2	9.0861 (1.000)	411.044 (0.393)	9.7950 (1.000)	7.2138 (1.000)	
Arellano-Bond Test (p value) for AR(1)	-.94817 (0.3430)	-14.523 (0.0000)	-1.0295 (0.3032)	-1.0138 (0.3107)	
Arellano-Bond Test (p value) for AR(2)	-1.5515 (0.1208)	-.71204 (0.4764)	-1.0898 (0.2758)	-.97568 (0.3292)	
Durbin Watson					2.0194
Baltagi LBI					2.0681
*, ** and *** represents statistical significance at a level of 10%, 5% and 1% respectively. The values in parentheses are standard error values.					

In the analyses of the Models 1, 2, 3 and 4 used in the study was utilized Generalized Method of Moments (GMM), one of the dynamic panel estimation methods and developed by Arellano-Bond (1991). As well as GMM, in the analyses of the models were also utilized Wald test which indicates whether the variables used in the model are significant as a whole, Sargan test determining whether the mediating variables used in the models test are valid or not and Arellano-Bond (AB) test which tests whether there exists an autocorrelation problem in the model.

When Table 4 is examined, it is find out according to the Wald test result that the variables used in the model altogether seem to be significant in explaining the dependent variable. It is also observed according to the Sargan test result that mediating variables are valid; in other words, the models are appropriate, and Arellano-Bond autocorrelation test result indicates the first order negative autocorrelation, but there is no second order autocorrelation, as expected. In the analysis of Model 5 was utilized Random Effects Model (REM) method in order to obtain statistical information between variable groups and time periods because p-value of the model is smaller than 0.05 according to the Hausman test result (H0: $E(\varepsilon_{it}|X_{it}) = 0$ Cross-sectional data and time-series effects are random, there is no correlation.). The classical Durbin-Watson test or Breusch-Godfrey tests cannot be applied for autocorrelation tests in panel data sets (Bhargava, Franzini and Narendranathan, 1982: 533-549). Instead of these tests, Durbin-Watson test modified for panel data sets, suggested by Bhargava et al (1982), and LBI statistic developed by Baltagi and Wu (1999) were used in literature. In addition to the REM method, Wald test which detects whether the variables used in the model are significant as a whole, Durbin-Watson test which tests whether there exists an autocorrelation problem in the model and Baltagi-Wu LBI statistics in the analysis of Model 5. When Table 4 is examined and analyzed, it is found out that the variables altogether seem to be significant in explaining the dependent variable according to Wald test results, and there is no autocorrelation problem when Durbin-Watson and Baltagi-Wu LBI autocorrelation test results are taken into consideration.

When the models were applied, the following equations were obtained for five different models explaining the dependent variable.

$SOE_{it-1} = 34.341ROA – 1.552\ RLTA + 3.70ROE + 0.137CRP$
$SOE_{it-1} = 0.060 + 32.072NPLTA + 0.231CRP$
$SOE_{it-1} = 0.340 + 243.98ROA – 4.520\ RLTA – 0.066FRP$
$SOE_{it-1} = 0.336 + 227.83ROA + 4.761TA + 0.090ERP$
$SOE_{it} = 16.667\text{-}43.13TA + 2.484NP + 35.161DEPT + 4.770BD – 9.969DRLTA + 14.094NPLTA + 0.067PRP$

As a result of the model application, it was obtained a statistically significant at a level of 1% and positive correlation between SOE and ERP, and similarly a statistically significant at a level of 10% and positive correlation between SOE and PRP. It was also identified a negative correlation, which is statistically significant at a level of 5%, between FRP and SOE. Additionally, between CRP and SOE rates, though, was found out a positive correlation which is statistically significant at the levels of 5% and 1%. According to the panel data analysis, findings regarding the country risk variables suggest that an increase in the economic risk premium, country risk premium and political risk premium will reflect the stock price negatively and decrease the rate of return on equity. The findings about the country risk, political risk and economic risk variables seem appropriate to the literature and theoretical expectations. These results obtained support the fact that there exists a negative correlation between country risk variables and share earnings, which was also presented by Erb et al. (1996), Bekaert (1995), Bekaert and Harvey (1997), Bansal and Dahlquist (2001), Damodaran (2003), Bekaert and Harvey (2003), Hassan et al. (2003), Mateus (2004), Zhang and Zhao (2004), Yaprakli and Gungor (2007) and Sabal (2008). However; according to the panel data findings, it was found out a negative correlation between stock returns and financial risk variable. This result obtained seems to be consistent with the finding by Perotti and Oijen (2001) that the financial risk within the scope of the country risk do not have any impact on the market performance,

5. Conclusion

There are many factors that affect stock prices. Predicting stock performance especially by means of financial statements and financial ratios derived from the balance sheets of the firms is one the methods often used. It is observed in the literature that there are various methods being used to measure the stock performance. Within this context, this paper aims to investigate the effect of country risk, a combination of economic, political and financial components, on return on equity.

The most distinguishing difference of this study when compared to other similar studies in Turkey is that country risk premiums were also included in the analysis, as well as the financial ratios of the banks. Panel data analysis method was used as the econometric method for the period between 2003 and 2013 in the study. According to the panel data analysis results, findings regarding the country risk variables suggest that an increase in the economic risk premium, country risk premium and political risk premiums will reflect the stock price negatively and decrease the rate of return on equity. Findings regarding the country risk, political risk and economic risk variables seem to be appropriate to the literature and theoretical expectations. When making decisions about investing in international markets, investors will consider economic, financial and political factors of countries they plan to invest and prefer those countries with lower country risk. Therefore, politicians should develop new reforms to boost economic growth and adapt to global economy in a macroeconomics sense, take measures to increase efficiency and strength in financial areas and ensure Turkey to be an attractive country for foreign investment by applying new policies to reduce the country risk.

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