The Determinants of Equity Home Bias in Turkey

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ABSTRACT

The aim of this research is to analyze the determinants of the equity home bias for Turkish investors. In this context, the roles of exchange rate risk, direct costs, familiarity, cultural factors, corporate governance, stock market characteristics and economic features as factors causing homes bias were examined for 20 target countries invested in between 2001 and 2010. Panel Regression Analysis is employed to examine the impact of seven factors proxies by 15 variables on the dependent variable, equity home bias, calculated using International Capital Asset Pricing Model as a benchmark. Analysis results suggest that main determinants of Turkish investors' home bias in international equity investments are familiarity and cultural factors. Turkish investors prefer to allocate their stock investment in countries that are familiar and culturally close even if these markets are deprived of the possibility of diversification, geographically distant and frontier markets with weak corporate governance. These findings reveal that Turkish investors tend to be affected by behavioral factors rather than institutional factors in international equity investments.

Keywords: Equity home bias in Turkey, home bias determinants, home bias measurement.

Jel Classification: G11, G15, C21

Türkiye'nin Hisse Senedi Yerel Yatırım Taraflılığının Belirleyicileri

ÖZET

Bu çalışmanın amacı hisse senedi yerel yatırım taraflılığının nedenlerinin Türk yatırımcıları açısından incelenmesidir. Bu kapsamda Türk yatırımcılarının 2001-2010 yılları arasında hisse senedi yatırımı yaptığı 20 hedef ülkeye göre belirlenen yerel taraflılık düzeyinde; döviz kuru riski, direkt maliyetler, benzerlik, kültürel faktörler, kurumsal yönetim, sermaye pazarı özellikleri ve ekonomik özellikleri etkenlerinin etkisi analiz edilmiştir. ICAPM gösterge alınarak belirlenen yerel yatırım taraflılığı bağımlı değişkeni üzerinde bu 7 faktörü temsil eden 15 değişkenin etkisini araştırmak için Panel Veri Analizi Yöntemleri kullanılmıştır. Analiz sonuçları Türk yatırımcılarının uluslararası hisse senedi yatırımlarında yerel yatırım taraflılığını belirleyen temel faktörlerin benzerlik ve kültürel faktörler olduğunu göstermektedir. Türk yatırımcıları coğrafi mesafesi uzak, kurumsal yönetim özellikleri zayıf, çeşitlendirme olanağından yoksun ve az gelişmiş olsa dahi aşina ve kültürel açıdan yakın oldukları pazarlara hisse senedi yatırımı yapmayı tercih etmektedir. Bu bulgular Türk yatırımcılarının uluslararası hisse senedi yatırımlarında kurumsal faktörlerden çok davranışsal faktörlerden etkilenme eğiliminde olduğu sonucunu ortaya çıkarmaktadır.

Anahtar Kelimeler: Türkiye'de hisse senedi yerel yatırım taraflılığı, yerel yatırım taraflılığının belirleyicileri, yerel yatırım taraflılığının hesaplanması.

JEL Sınıflandırması: G11, G15, C21

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1. INTRODUCTION

The traditional International Capital Asset Pricing Model (ICAPM) based on Sharpe (1964) and Lintner (1965) predicts that an investor should hold equities from a country as per that country's share of world market capitalization. However, empirical facts suggest that international portfolios are heavily biased towards domestic assets (Cooper and Kaplanis, 1994; French and Poterba, 1991; Tesar and Werner, 1995; Glassman and Riddick, 2001; Ahearne et al. 2004; Chan et al. 2005). This phenomenon that is termed the "home bias/domestic bias" can be defined as the situation where an investor holds far too high a share of their wealth in domestic securities compared with the optimal share predicted by the traditional theory of portfolio choice (Mishra, 2008, p.53).

The home bias (HB) in international capital markets was first noted in the finance literature (Lewis, 1999, p. 571-575). The revealed preference for familiar assets in the presence of higher returns and lower risks from less familiar assets is known also as familiarity bias. Displaying a bias toward the familiar suggests a lack of diversification. Researchers have studied familiarity bias in both the domestic (local bias) and international (home bias) settings. In both cases, familiarity bias occurs when investors hold a portfolio biased toward familiar assets compared to an unbiased portfolio derived from a theoretical model or empirical data. Familiarity bias is even more evident at the international level with most portfolios heavily biased toward domestic equity despite the large gains to be made through international diversification (Baker and Nofsinger 2010, p. 277-279).

Home bias is inconsistent with standard asset pricing theory and runs counter to the benefits of international diversifications of equity portfolios. This home bias in actual portfolio holdings obviously runs counter to the strand of literature, including Grubel (1968), Levy and Sarnat (1970), Solnik (1974), Lessard (1976), Gauer and Hakanson (1987), Kaplanis and Schaefer (1991), Eun and Resnick (1988), that collectively established a strong case for international diversification (Cooper and Kaplanis,1994, p. 43; Eun et al. 2012, p. 321).

Despite the dramatic increase in cross-border securities trading and the removal of many formal barriers to international investment during the past decades, investors still overweight domestic stocks in their portfolios (Diyarbakırlıoğlu, 2011, p. 301-302). Home bias towards holding domestic financial assets continues to be a puzzle of global financial markets which is poorly understood. At least since French and Poterba (1991) revealed the fact that investors have a strong preference for their home countries' equity, the home bias phenomenon has been subject of detailed investigation. A steadily growing literature has proposed several partly competing and partly complementary explanations (Fidora et al. 2007, p. 633).

First domestic securities may provide investors with certain extra services, such as hedging against domestic inflation that foreign securities do not. This however is not a likely

scenario. Second there may be barriers, formal and informal, to investing in foreign securities that keep investors from realizing gains from international diversification. These barriers may be in the form of intuitional and legal restrictions on foreign cash flow, extra taxes and transaction/information costs for foreign securities. Besides familiarity bias directs investors not to hold securities with which they do not feel familiar (Eun et al. 2012, p. 321-322).

Numerous institutional and behavioral explanations have been advanced for the home bias. Studies examining the determinants of home bias have been focused on the different factors depending also on the period of the investigations and have classified these determinants in different ways. The hypothesis, that domestic assets provide a good hedge against domestic risks such as inflation, suggested in the first studies conducted in the 1980s and 1990s, was not supported in general. Then the impact of costs to holding foreign assets rather than domestic assets was examined. Researches that focused on observable direct costs such as the transaction costs and capital controls could not fully explain the home bias.

Because of the level of home biases are above than observable costs and the reduction of costs and restrictions on foreign investments with the financial globalization, researchers have tend to examine the other factors. Informational imperfections (information cost or information asymmetry)[1], behavioral factors influencing investor preferences and also the economic, financial and intuitional features of countries have been examined as factors causing imperfect diversification and home bias of international portfolio investments.

However differences in information between local and foreign investors, information cost /familiarity[2], that is one of the barrier to international investment helps in understanding the home bias better, no one has yet measured whether these apparent informational effects are large enough to explain the extent of home bias (Brealey et al. 1999, p. 107; Karolyi and Stulz, 2002, p. 54).

Rational explanations for home bias can only explain part of the observed bias toward local assets. Several studies have turned to behavioral finance explanations to explain the remainder of the puzzle (Baker and Nofsinger, 2010, p. 288). International capital markets are segmented not only by costs and restrictions on international portfolio investment but also other informational imperfections. The nature of these imperfections is however slightly mysterious. Given the decrease in actual information costs during last decades, it must be that investors have some in-built prejudice against foreign equity investment. This could take the form of an irrational optimism about domestic equities as in French and Poterba (1991, p. 225), a wrong belief that domestic equities hedge domestic inflation or an empirically untrue belief in investor's ability to beat the index return in his home market, but not in a foreign market (Cooper and Kaplanis, 1994, p. 51).

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2. Baele et al. (2007, p. 608) used the "perception asymmetry" expression for the perceived asymmetry of information. Perception asymmetry implies that psychological factors are effective in investor preferences.

2. Familiarity and finarmation asymmetry are being used interchangeably in home bias determinants studies.

The impact of cultural differences between countries on home bias has been analyzed empirically as an important behavioral in recent years. Besides, Baker and Nofsinger (2010, p. 288) classified other behavioral explanations for home bias as investing in own-company stock, overconfidence, regret, patriotism and social identification.

Home bias is probably caused by a mixture of both institutional and behavioral biases, and therefore it is a very complex task to find a theoretical model that correctly describes actual portfolio choice (Sercu and Vanpee, 2007, p. 1). However psychological biases remain the most likely candidates to explain its persistent magnitude (Solnik, 2008, p. 18).

The tax burden, transaction cost, capital control, exchange rate risk, information cost and perception cost... etc. costs incurred by foreign investment are classified differently in the literature. Legal and institutional obstacles applied to the cross-border investment, withholding taxes, transaction costs… etc. are usually classified as measurable, observable, explicit or direct costs. Information cost, perception asymmetry and factors causing cost increase indirectly such as capital market and economic characteristics of countries are often classified as not measurable, implicit or indirect costs[3].

The costs of foreign portfolio investments are classified in different ways by researchers. Uppal (1992, p. 184) considers that all costs are discriminatory taxes on foreign investment. In his model tax captures the effect of withholding tax, stamp duties, turnover taxes and also the effects of political risk or information costs that arise because of unfamiliarity with foreign markets. Barriers to international investment are represented as taxes on the absolute value of an investor's holdings of risky foreign assets in Stulz (1981, p. 933)'s model. French and Poterba (1991) examined the investor choices and institutional constraints as reasons for the lack of international diversification. Tesar and Werner (1995) described factors related to the investor behavior as informational and other factors as institutional. Fellner and Maciejovsky (2003) and Baker and Nofsinger (2010) use institutional factors phrase for non-behavioral factors affecting home bias. Investor preferences and behavior-based explanations of home bias are expressed as information based explanations by Faruqee et al. (2004). Sercu and Vanpee (2007) made the distinction between the institutional/rational and behavioral/irrational factors. Beugelsdijk and Frijns (2010) classified factors other than cultural factors as focal host country attractiveness and risk-return profile.

Some articles (Lau et al. 2010; Chen and Yuan, 2011) suggest that decreasing a country's degree of home bias might help reduce its level of segmentation and cost of capital. That is, if domestic investors were to allocate their cross-border equity investments in accordance with standard portfolio theory, it is likely that countries might enjoy significantly

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3. "Deadweight cost" phrase used in Chan et al. (2005) and Cooper and Kaplanis (1986) studies refers to the all costs on foreign investment.

lower cost of capital benefits and greater global risk sharing. As a result it can be said that home bias affects the investors' welfare, country's level of integration and capital costs.

It was observed that foreign researches include Turkey as a target country to examine home bias towards Turkey. But sufficient work has not been found examining the reasons of local preference of Turkish investors in their investment decisions. Home bias in Turkey's stock and bond investments was calculated in Aydın (2008)'s study but the determinants of the home bias have not been examined in this study.

The aim of this research is to analyze the determinants of the equity home bias for Turkish investors. In this context the roles of exchange rate risk, direct costs, familiarity, cultural factors, corporate governance, stock market characteristics and economic features as factors causing homes bias were examined for 20 target countries invested in between 2001 and 2010. Panel Regression Analysis is employed to examine the impact of seven factors proxies by 15 measures on the dependent variable, equity home bias, calculated using International Capital Asset Pricing Model as a benchmark. Analysis results suggest that main determinants of Turkish investors' home bias in international equity investments are familiarity and cultural factors. Turkish investors prefer to allocate their stocks investment in countries that are familiar and culturally close.

2. DATA AND CONSTRUCTION OF VARIABLES

2.1. Equity Holding Data

Turkey's country level equity investment data was obtained from Coordinated Portfolio Investment Survey (CPIS) of International Monetary Fund (IMF) (http://cpis.imf.org). Starting in 1997, this survey reports data from a large number of countries around the world on foreign portfolio asset holdings by residence of the issuer. The first version of the survey was conducted in 1997 and covered only 29 source countries; second version was conducted in 2001 including 69 countries. Although data are available from 1997, complete yearly data are available only from 2001 onwards.

Our analysis period is 10 year period between 2001 and 2010. According to the CPIS data there are 49 host countries Turkey invested at least one period. And investment amount is higher than 500.000 dollar (0, 5 million dollar) in at least a period between 2001-2010 for 20 countries and 1 financial center (Cayman Islands) of these 49 countries. Cayman Islands was not included in the analysis because of most datas, mainly the amount of capitalization for dependent variables, could not be reached for it. In the literature (Thapa and Poshakwale, 2010; Fidora et al. 2007; Chen and Yuan, 2011) financial centers were often excluded from empirical studies. Table 1 presents Turkey's equity investments in selected 20 host countries between 2001 and 2010.

Table 1. Turkey's equity investments in 20 host countries

Country/Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
USA	9.16	5.89	11.68	17.44	13.21	41.73	44.91	38.32	115.43	105.93
Germany	27.47	20.58	17.25	4.02	4.08	3.23	5.12	1.15	12.26	111.43
Bahrain	...	...	...	0.38	...	0.74	...	...	0.74	1.20
Belgium	...	...	...	...	...	9.98	...	...	0.20	0.06
France	0.16	0.04	0.66	1.33	0.94	0.37	0.00	0.00	2.35	2.90
Netherlands	0.43	0.13	0.44	58.45	50.95	0.65	0.55	0.01	0.18	0.08
United Kingdom	0.47	0.51	0.44	0.45	0.24	3.53	1.13	2.19	8.04	35.11
Ireland	1.64	...	1.12	1.11	0.12	...	1.09	...	0.00	0.49
Switzerland	4.56	0.05	0.48	1.33	1.82	0.89	0.23	0.65	3.92	0.22
Japan	...	...	...	...	...	...	0.89	0.12	0.42	0.00
Canada	0.04	0.64	1.99	5.35	0.08	0.64	0.57	0.09	0.83	2.30
Kazakhstan	1.72	0.41	0.43	0.46	0.08	...	0.09	...	0.00	0.00
Kuwait	...	...	7.14	...	...	...	...	...	1.26	0.07
Luxembourg	1.83	7.78	7.90	14.90	16.95	87.72	21.17	15.07	69.58	105.78
Malaysia	...	...	...	...	...	...	...	...	0.50	0.50
Pakistan	...	...	...	...	...	...	...	...	1.50	0.00
Portugal	...	...	...	...	0.80	...	...	0.27	0.01	0.00
Romania	0.08	3.42	3.42	...	...	...	...	...	0.00	0.07
Russian	0.08	0.08	0.08	0.02	0.02	...	0.02	...	0.65	0.65
Greece	...	...	...	...	...	...	0.00	0.00	0.00	0.64

Notes: Data are obtained from CPIS reports. Amounts refer to the million dollars. "…" indicates data are unavailable.

2.2. Measuring Home Bias

In order to derive a measure of home bias, actual geographical portfolio allocations are compared to those predicted by a simple benchmark. In this context, home bias measures the degree to which investors of a given country are overweight in domestic assets and underweight in international assets, as compared to the benchmark portfolio that would weigh home and foreign assets according to the respective shares in the global financial market. (Fidora et al. 2007, p. 635).

The existing literature describes two major approaches and an alternative model to measure home bias. First is a model-based approach based on a version of ICAPM assuming that benchmark weights are simply given by the proportion each country has in the global equity market portfolio. Second is a data-based approach in which optimal portfolio weights are derived from a mean-variance optimization procedure[4]. An alternative third approach,

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4. While both approaches have their merits and flaws, they reach the same conclusion; namely there are gains to greater diversification out of local assets. Both approaches are not without problems. In model-based approach, investors are assumed to have a dogmatic belief in the ICAPM, despite the reasonable doubt about the validity of the model. The data-based approach on the contrary completely ignores asset pricing models and calculates weights in a standard mean-variance framework by relying solely on return data. An important disadvantage of this approach is that the weights are extremely sensitive to the assumed vector of expected

Bayesian model involves a compromise between the model and data-based approaches (Baele et al. 2007, p. 607; Baker and Nofsinger, 2010, p. 282-284).

In the home bias literature home bias is usually measured under the assumptions of the classical ICAPM that takes the share of a country's market capitalization in the world market as a benchmark. The traditional ICAPM model suggests that to maximize risk adjusted returns, investors should hold equities from countries around the world in proportion to their market capitalization (Baele et al, 2007; Daly and Vo, 2013, Lau et al, 2010, p. 196; Mishra, 2008).

To formalize HB (Chan et al. 2005, p. 1503-1509; Fidora et al. 2007, p. 635; Beugelsdijk and Frijns, 2010, p. 2124), let w_i^* be the market weight of the rest of the world seen from the viewpoint of a given country i, and w_i be the share of international assets in the country's portfolio, home bias (HB_i) is given by the percent defference between these two weights.

$$HB_i = \frac{w_i^* - w_i}{w_i^*} = 1 - \frac{w_i}{w_i^*} \quad \forall \ w_i^* \geq w_i \tag{1}$$

More specifically, we can determine a "bilateral" home bias (HB_{ij}) between two countries and gauge how much the actual allocation of financial assets of country i vis-a-vis any given country j differs from the benchmark weight this country should receive.

$$HB_{ij} = \frac{w_j^* - w_{ij}}{w_j^*} = 1 - \frac{w_{ij}}{w_j^*} \quad \forall \ w_j^* \geq w_{ij} \tag{2}$$

The difference between the actual holdings in a country (w_{ij}) and the optimal weight (w_j^*) reflects the degree of bias towards a particular country. This measure states how underweight or overweight investors of country j are in a given country i, by providing the percentage deviation of actual portfolio from the market portfolio.

Given the fact that most countries have a large and positive domestic bias, we expect in most cases that $w_{ij} < w_j^*$, i.e., investments in host countries are lower than the optimal investments. This cause HB_{ij} to be positive and less than one in most cases and implies that lower values for HB_{ij} imply greater foreign investment and less home bias. A potential difficulty of this measure arises when optimal weights (w_j^*) are lower than actual investments rate (w_{ij}). This, $w_j^* < w_{ij}$, cause HB_{ij} to be negative and implies that county i's excess investment in county j. Nagative homes biases can be seen toward some Eurozone countries and some financial centers such as Luxemburg, Ireland and Caymand Islands.

To measure dependent variable, home bias, we calculate deviations from the optimal portfolio as described by ICAPM as in Chan et al. (2005), Fidora et al. (2007) and

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returns, an input that is is notoriously difficult to estimate (Baele et al. 2007, p. 607; Baker and Nofsinger, 2010, p. 282-284).

Beugelsdijk and Frijns (2010). Data of Turkey's cross-border equity investment on the basis of country invested were obtained by the CPIS. Market capitalizations were accessed via World Bank database (http://data.worldbank.org). Data about domestic and foreign stocks investments in Turkey were obtained from International Investment Position database of the Central Bank of the Republic of Turkey (CBRT) (www.tcmb.gov.tr/uyp).

Table 2 shows Turkey's equity home bias and Table 3 presents Turkey's bilateral equity home biases towards 20 sample countries in 10 years period from 2001 and 2010.

Table 2. Equity home bias in Turkey

Year	World Cap.	Turkey Cap.	Cap. Share	Total Equity Investment	Domestic Equity Investment	Foreign Equity Investment	Home Bias
2001	27,906,268	47,150	0.17	41,568	41,515	53	99.87228
2002	23,509,266	33,958	0.14	30,553	30,508	45	99.85250
2003	32,036,192	68,379	0.21	59,493	59,425	68	99.88546
2004	38,112,912	98,299	0.26	82,282	82,158	124	99.84891
2005	43,209,736	161,537	0.37	128,253	128,150	103	99.91939
2006	53,317,498	162,399	0.30	128,748	128,583	165	99.87145
2007	64,471,812	286,572	0.44	222,464	222,371	93	99.95801
2008	34,871,853	117,930	0.34	94,808	94,734	74	99.92168
2009	47,380,718	225,735	0.48	178,722	178,487	235	99.86788
2010	54,164,794	306,662	0.57	245,563	245,165	398	99.83700

Notes: Table 1 shows the data used to calculation of equity home bias in Turkey between 2001 and 2010. Amounts refer to the million dollars. World capitalization rate and home bias are percentage (%) values. "Cap." refers to the capitalization.

Table 3. Equity home biases of Turkey towards 20 host countries

Country/Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
USA	0.9996	0.9996	0.9996	0.9995	0.9997	0.9991	0.9993	0.9988	0.9980	0.9986
Germany	0.9828	0.9771	0.9914	0.9984	0.9989	0.9992	0.9993	0.9996	0.9975	0.9828
Bahrain	....	....	....	0.9871	....	0.9855	....	....	0.9884	0.9870
Belgium	....	....	....	....	....	0.9896	....	....	0.9998	0.9999
France	0.9999	1.0000	0.9997	0.9996	0.9998	0.9999	1.0000	1.0000	0.9997	0.9997
Netherlands	0.9994	0.9997	0.9995	0.9497	0.9710	0.9997	0.9998	1.0000	0.9999	1.0000
United Kingdom	0.9999	0.9998	0.9999	0.9999	1.0000	0.9996	0.9999	0.9996	0.9992	0.9975
Ireland	0.9854	....	0.9929	0.9955	0.9996	....	0.9978	....	1.0000	0.9982
Switzerland	0.9951	0.9999	0.9996	0.9993	0.9993	0.9997	0.9999	0.9997	0.9990	1.0000
Japan	....	....	....	....	....	....	0.9999	1.0000	1.0000	1.0000
Canada	1.0000	0.9991	0.9988	0.9979	1.0000	0.9998	0.9999	1.0000	0.9999	0.9998
Kazakhstan	0.0413	0.7660	0.9038	0.9460	0.9973	....	0.9994	....	1.0000	1.0000
Kuwait	....	....	0.9353	....	....	....	....	....	0.9965	0.9999
Luxembourg	0.9484	0.7579	0.8861	0.8624	0.8886	0.5432	0.9631	0.9166	0.8253	0.7693
Malaysia	....	....	....	....	....	....	....	....	0.9995	0.9997
Pakistan	....	....	....	....	....	....	....	....	0.9880	1.0000
Portugal	....	....	....	....	0.9960	....	....	0.9985	1.0000	1.0000
Romania	0.9752	0.4237	0.6706	....	....	....	....	....	1.0000	0.9995
Russian	0.9993	0.9995	0.9998	1.0000	1.0000	....	1.0000	....	0.9998	0.9999
Greece	....	....	....	....	....	....	1.0000	1.0000	1.0000	0.9981

Notes: Amounts refer to the million dollars. World capitalization rate and home bias are percentage (%) values.

Turkey's total foreign equity investment is 1,261 million dollars between the years of 2001-2010 and 1.203 million dollars of it made in 20 sample countries constitutes 95.5% of the total amount. 90.3% of the total investment has been made in six countries and their shares are; US 32%, Luxembourg 27.7%, Germany 16.4%, Netherlands 8.8%, UK 4.4% and Switzerland 1%.

Results in both Table 2 and Table 3 suggest that equity home bias, calculated using ICAPM as a benchmark, were very high. These findings reveal that Turkish investors tend strongly towards local investments and don't benefit enough from international diversification. High biases seen in Turkish investors' stocks investments are an indication that the financial market is segmented in Turkey. The increase of foreign stock investments of Turkish investors will contribute to the increase of wealth and the reduction of the capital costs. The low rate of institutional investors and inadequate savings rate in Turkey is effective in the low level of foreign portfolio investments. The development of institutional investors' rate and savings rates are expected to help Turkey's approach to the optimal level of international portfolio investments.

2.3. Determinants of Home Bias

We aim to explain the determinants of Turkey's bilateral home bias variation across countries. Based on the existing literature we propose a set of predetermined variables as drivers of home bias. These variables are classified into seven groups: 1) exchange rate risk 2) explicit costs 3) familiarity 4) cultural factors 5) corporate governance 6) stock market development 7) economic development[5]. Fifteen measures are used for these seven variables. Measures of home bias on a vector of explanatory variables include exchange rate volatility (EXCH), withholding tax (WTAX), capital control (CONTROL), bilateral trade (BTRADE), geographic distance (DGEO), cultural distance (DCULT), corporate governance (GOVERN), investor protection (INVPRO), market size (SIZE), market liquidity (LIQUID), return potential (RETURN), diversification opportunity (CORR), emerging market (EM), GDP per capita (GDPC) and foreign trade (TRADE). Table 4 presents the statistics of dependent variable and explanatory variables.

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5. "Hedging against local risks" not having important explanatory power on the home bias since early studies and behavioral biases such as overconfidence, regret, patriotism, social identification... etc. are not included in this analysis. Transaction cost that has been examined as a direct cost in literature is excluded because of its declining fimportance and data supply difficulties.

Table 4. Descriptive statistics of variables

Variable	Measure		Mean	St. Dev.
Home Bias (dependent)		HB	0.97	0.11
Exchange rate risk	Exchange rate volatility	EXCH	0.02	0.01
Explicit costs:	Withholding tax	WTAX	15.11	9.35
	Capital control	CONTROL	5.67	2.65
Familiarity	Bilateral trade	BTRADE	0.03	0.03
	Geographical distance	DGEO	3.46	0.29
Cultural factors	Cultural distance	DCULT	1.41	0.99
Corporate governance	Corporate governance	GOVERN	73.20	23.24
	Investor rights protection	INVPRO	6.05	1.72
Stock market development	Size	SIZE	87.43	58.14
	Liquidity	LIQUID	71.85	81.91
	Return potential	RETURN	0.10	0.31
	Diversification opportunity	CORR	0.46	0.16
	Emerging market	EM	0.14	0.35
Economic development	Gross domestic product	GDPC	4.28	0.51
	Foreign trade	TRADE	48.79	32.58

Table 4 exhibits descriptive statistics of variables. Corporate governance, investor protection and capital control variables are index values. Corporate governance ranges between 0 and 100, investor protection and capital control indices have scale from 0 to 10. The variables except EM dummy are proportional, percentage and logarithmic values. It is observed that the bilateral home biases are very high with an average of 0.97 and they have a standard deviation of 0.11. The corporate governance quality and investor protection level of 20 host countries are relatively high. Stock market characteristic and cultural distance variable have high volatility representing the significant differences between countries invested. Average bilateral trade of 3% shows that the share of bilateral trade with the target countries in the total foreign trade volume is low.

This paper regress the measure of home bias on a vector of explanatory variables to estimate the Turkish investors' bilateral home biases in 20 target countries.

$$HB_i = \alpha + \beta X_i + \varepsilon_i \tag{3}$$

HB is the function of the explanatory variables where, X_i: explanatory variables vector, ε_i: random error term. This relationship can be expressed in the the following equations.

$HB_i = f$ (exchange rate risk, explicit costs, familiarity, cultural factors, corporate governance, stock market development, economic development)   (4)

$HB_i = \alpha + \beta_0(EXCH) + \beta_0(WTAX) + \beta_0(CONTROL) + \beta_0(BTRADE) + \beta_0(DGEO) + \beta_0(DCULT) + \beta_0(GOVERN) + \beta_0(INVPRO) + \beta_0(SIZE) + \beta_0(LIQUID) + \beta_0(RETURN) + \beta_0(CORR) + \beta_0(EM) + \beta_0(GDPC) + \beta_0(TRADE) {}_+ \varepsilon_i$ (5)

2.3.1. Exchange Rate Risk

Exchange rate volatility: Exchange rate risk tends to reduce the optimal weight of foreign securities in investor's portfolios. So there is a link between home bias and the exchange rate volatility. Fidora et al. (2007) found that real exchange rate volatility is an important explanation for the cross-country differences in bilateral home biases and can explain around %20 of the variations in home biases. For exchange rate risk variable we define bilateral real exchange rate volatility as the standard deviation of monthly real exchange rate changes as in Fidora et al. (2007), Wang (2009), Anderson et al. (2011), Mishra (2011) and Daly and Vo (2013). Past 12 months exchange rates are defined relative to the USD dollar for the countries other than USA and relative to Euro for the USA. Average monthly real exchange rate data are collected from the United States Department of Agriculture (www.ers.usda.gov)[6] as in Anderson et al. (2011).

2.3.2. Explicit Costs

Withholding tax: First explicit cost (direct cost) variable is withholding tax rates on dividend yields of Turkish investors if there is a bilateral treaty honored by host countries or withholding tax rates on foreign investments imposed by host countries if there isn't a bilateral treaty with Turkey. Withholding taxes data imposed by other countries on dividend yield of Turkish investors are obtained from Worldwide Corporate Tax Guide reports (http://www.ey.com) published by Ernst & Young since 2001. We expect Turkish investors to reduce their stock holdings in countries with higher withholding taxes and thus home bias will be larger as stated in Chan et al. (2005).

Capital control: Although capital control has been greatly reduced in many countries, some countries still place restrictions on foreign equity investment and international capital flow. Capital control can still affect cross-border investment and we include capital control variable as a second explicit cost to capture the potential influence of capital restrictions. We use the Economic Freedom Network (www.freetheworld.com) index that measures the restrictions countries impose on capital flows, as in Chan et al. (2005), Beugelsdijk and Frijns

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6. Nominal exchange rates were used for Bahrain and Kazakhstan because real exchange rates and consumer price index (CPI) datas suitable for analysis period and frequency are unavailable. The real exchange rate change was calculated for Romania using Romania and ABD nominal rates and CPI's. Romania CPI data are drawn from National Institute of Statistics (www.insse.ro/cms), ABD CPI data are from United States Department of Labor-Bureau of Labor Statistics (www.bls.gov/cpi/tables), Kazakhstan nominal exchange rates are from National Bank of the Republic of Kazakhstan (http://www.nationalbank.kz), and Nominal exchange rates for Bahrain and Romania are obtained via a currency conversion website (www.oanda.com/currency/historical-rates/). The real exchange rate change of Romania calculated as in Wang (2009, p.30) is as follows:

$$\frac{RER_{j,i,t}}{RER_{j,i,t-1}} = \frac{e_{j,i,t}}{e_{j,i,t-1}} \times \frac{1 + \%\Delta CPI_{i,t}}{1 + \%\Delta CPI_{j,t}}$$

Where $RER_{j,i,t}$ is the real exchange rate of foreign country j's currency with respect to home country i's currency at time t; $e_{j,i,t}$ is the corresponding nominal exchange rate at time t expressed as the amount of foreign country j's currency per unit of home country i's currency; $\%\Delta CPI_{i,t}$ and $\%\Delta CPI_{j,t}$ are the percentage monthly change of the CPI in country j and country i at time t.

(2010), Ferreira and Miguel (2011) and Thapa et al. (2013). When a country imposes capital control, this will either prohibit or discourage foreign investors from holding stocks in companies in that country. Therefore the degree of home bias for a country will be higher when the country has a higher capital control measures. Thus we expect capital control variable to have a positive impact on the home bias of Turkish investors in portfolio equity investment against destination countries. But because the Economic Freedom Network index assign lower ratings to countries with more restrictions on foreign capital transactions, negative relationship between capital control measure and home bias represents a positive impact.

2.3.3. Familiarity

One of the popular explanations for home bias is familiarity; investors have less information about foreign securities and hence under-invest abroad. We include two common familiarity variables, bilateral trade and geographic distance, together with appropriate proxies.

Bilateral trade: The first variable is the amount of bilateral trades between the Turkey (home) and host countries. By chasing goods and services produced by foreign firms, the domestic investors obtain information about these companies. At a minimum, investors have more confidence (Chan et al. 2005, p. 1519). Bilateral trade is constructed as the ratio of total bilateral trade (imports and exports) between the Turkey and host country relative to the Turkey's total imports and exports with all the partner countries as in Faruqee et al. (2004), Chan et al. (2005) and Bekaert and Wang (2009). Related datas are obtained from Foreign Trade Statistics (http://tuikapp.tuik.gov.tr/disticaretapp/) reported by Turkish Statistical Institute. We expect higher bilateral trade of the target country to be associated with higher foreign investment and lower home bias.

Geographical distance: We also include the log of the geographic distance (in kilometers) between the capital cities of Turkey and the host countries as the second familiarity variable. Portes and Rey (2005), Beugelsdijk and Frijns (2010), Batten and Vo (2010), Diyarbakırlıoğlu (2011), Mishra (2011) and Daly and Vo (2013) show that distance is a good proxy for information cost. Data on geographical distance are obtained from a distance calculator (www.geobytes.com). This variable is expected to have positive impact on home bias.

2.3.4. Cultural Factors

Cultural distance: In this paper we utilize a traditional cultural distance measure proposed by Kogut and Singh (1988) based upon the Hofstede's scores for the dimensions of cultures as in a number of studies (Beugelsdijk and Frijns, 2010; Anderson et al. 2011 and Diyarbakırlıoğlu, 2011) examining the impact of cultural factors on home bias. Turkey's cultural distance from its target markets was formed based on Hofstede's four primary

cultural dimensions; power distance, uncertainty avoidance, masculinity and individualism[7] as per Kogut and Singh's (1988) original index. Hofstede's scores for the primary dimensions of culture are obtained from Geert Hofstede's website (http://geert-hofstede.com)[8]. Cultural distance variable is expected to have a positive impact on the home bias.

2.3.5. Corporate Governance

This variable provides a proxy for the role of information asymmetries arising from differences in accounting standards, disclosure requirements and regulatory environments across countries.

Corporate governance: We employ the Kaufman, Kraay, Mastruzzi governance indicator as in some other home bias studies (Mishra, 2008; Kho et al. 2009; Batten and Vo, 2010; Thapa and Poshakwale, 2012; Daly and Vo, 2013) via Worldwide Governance Indicators Project (WGI). Kaufman, Kraay, Mastruzzi governance indicator is the basic methodology of the WGI Project (http://info.worldbank.org/governance/wgi/) that cover over 200 countries and territories, measuring six dimension of governance starting in 1996[9]. The simple average of the six WGI index is used as in the Kaufman, Kraay and Mastruzzi (2003, 2008, 2009) and Daly and Vo (2013). This variable is expected to enter the regression with a negative sign.

Investor rights protection: The second corporate governance measure we use is the investor rights protection measure provided by the World Bank Doing Business (www.doingbusiness.org). Diyarbakırlıoğlu (2011) use the same investor protection index too. This variable is expected to be negatively related to the home bias as investors would prefer investing in those countries which provide better investor protection with stronger shareholders' rights and legal frameworks.

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7. We omit the long-term orientation dimension, added the fifth cultural dimension in 1991, because it is available for only a limited number of countries.

8. Cultural dimension scores of the 80 countries and 3 regions are available but scores of the two host countries (Bahrain and Kazakhstan) of this analysis are not available in the Hofstede's web site. An index was formed based on the deviation along each of the four cultural dimensions of each 80 country from Turkey. The deviations were corrected for differences in the variances of each dimension and then arithmetically averaged. And cultural distance between the Turkey and 18 host country was built. Kogut and Singh's (1988, p. 422) composite index algebraically is:

$$CD_i = \sum_{n=1}^{4} \left\{ \left(\left(I_{n,i} - I_{n,j} \right)^2 / V_n \right) \right\} / 4$$

Where CD_i is the cultural difference of investor i (Turkey) from host country j; $I_{n,i}$ stands for the index for the nth cultural dimensions of country i; $I_{n,j}$ is the index for the nth cultural dimensions of country j; V_n is the variance of index of the nth dimension.

9. The WGI consist of six composite indicators of broad dimensions of governance: voice and accountability, political stability and absence of violence, government effectiveness, and regulatory quality, rule of law and control of corruption (Kaufman et al. 2010, p. 2). At the time of the study the WGI Project reports the total and individual governance indicators for 215 countries according to six governance dimensions for the period of 1996-2011. Indicators can be supplied at the 50%, 75%, 90% and the 95% confidence level.

2.3.6. Stock Market Development

Size: The first measure of the stock market development is the relative size of the stock market of each host country, measured by the stock market capitalization as a percentage of the country's GDP as in Chan et al (2005) and Beugelsdijk and Frijns (2010). This variable is expected to be negatively related to the home bias. Data on size of each country are collected from World Bank database.

Liquidity: The next variable is liquidity, defined as the ratio of the total value of the stocks traded to the GDP in the host country as in Batten and Vo (2010) and Daly and Vo (2013). Other things being equal investors are unlikely to invest in liquid stock markets. So this variable is expected to enter the regression with a negative sign. Liquidity ratios data are from World Bank database.

Return potential: We also consider the role of historical risk-adjusted returns and construct a reward to risk ratio measure in accordance with Ahearne et al. (2004), Mishra (2008), Wang (2009) and Daly and Vo (2013). The return potential data is calculated as the ratio of the mean monthly returns of the Morgan Stanley Capital International (MSCI) country indices (www.msci.com) and the standard deviation of the returns over two years, the past year and current year[10]. If portfolio decisions are based partly on the past returns, then Turkish investors might tend to underweight countries whose stock markets have performed poorly a la 'returns-chasing' behavior as suggested by Bohn and Tesar (1996).

Diversification opportunity: We investigate the relative magnitude of the potential international diversification benefits of Turkish investors in host countries. Correlation coefficient between returns of Turkey and the host country is a proxy for the diversification potential between two countries as in other studies using this variable (Chan et al. 2005; Mishra, 2008; Beugelsdijk and Frijns, 2010 and Mishra, 2011). Correlation is computed using monthly MSCI return data over the past five years. Because the high correlation decreases the diversification potential we expect a negative relation between return correlation and foreign investment so a positive relation between correlation and home bias.

Emerging market: Last variable to measure stock market development is emerging market dummy variable that equals 1 for an emerging market and 0 otherwise as in Chan et al. (2005) and Ferreira and Miguel (2011). Other things being equal investors tend to invest in more developed stock markets. According to MSCI index, Malaysia (since 1987), Russia (since 1994) and Pakistan (Between 1992-2009) are in EM index.

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10. Market returns were obtained from MSCI country index for the countries other than Luxembourg because the MSCI Luxembourg Standard and Provisional Indices was removed from the MSCI EU Index Series that is the only regional index that includes MSCI Luxembourg in 2002 (MSCI press release, 28.02. 2002). Luxembourg stock market returns data was obtained from the official website of Luxembourg Stock Exchange (www.bourse.lu).

2.3.7. Economic Development

Foreign portfolio investments in a market are related to the economic development of that country (Chan et al. 2005, p. 1511). We consider that two economic development measures, GDP per capita and foreign trade volume have negative impact on home bias. Data are obtained from World Bank website.

Gross domestic product: We include the logarithmic value of the gross domestic product (GDP) per capita in U.S. dollars for each target country. Chan et al. (2005); Baele at al. (2007), Diyarbakırlıoğlu (2011), Thapa and Poshakwale (2012) and Thapa at al. (2013) revealed the relation between GDP and home bias.

Foreign trade: The foreign trade volume, the average of exports and imports scaled by GDP for each host country is a proxy for economic development (see Chan et al. 2005) and also economic openness (see Bekaert and Wang, 2009).

3. METHODOLOGY AND EMPRICAL RESULTS

This research employs Panel Data Method on the data set composed of home bias and home bias determinants observed in the Turkey's stock investments in 20 target countries during a 10-year process[11].

The data set of this study is short and unbalanced[12]. Missing datas for some units and times of dependent and independent variables led to the formation of an unbalanced panel data set and reducing the number of observations. Appropriate tests and estimators are used for unbalanced panel datas and censored dependent variable.

According to the pre-test results it is observed that there is no unit effects and time effects and pooled (classic) model is appropriate[13]. Pooled model which is determined by the test results was estimated. Random effects model suitable for the selection process of the countries, nature of the data and the purposes of the analysis was also estimated. As the dependent variable strictly lies between 0 and 1, Tobit model, which is one of limited dependent variable panel data models and can be applied to censored datas, is employed too as a robust check as in some home bias studies utilizing this model[14].

The heteroscedasticity and autocorrelation problems faced in pooled and random effects models were corrected by using White Estimator (Huber, Eicker and White Estimator) that has been widely used in home bias empirical studies and Driscoll and Kraay Estimator

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11. Stata 11, Eviews 7 and Gauss 10 software packages were used in all estimations and pretests.

12. Data set is called as short panel because sectional data size (n=20) is bigger than time size (t=10) and is called as unbalanced panel because number of observation of units are different from each other's.

13. Cross-sectional or spatial dependency tests are employed and then suitable unit root tests ignoring or not ignoring spatially dependency are used. After unit root tests the presence of unit effects in other words the validity of the pooled (classic) model is investigated to be able to determine appropriate estimator/estimators.

14. In the home bias empirical literature it is seen that Tobit Model is utilized in some studies (Daly and Vo, 2013; Fidora et al. 2007; Beugelsdijk and Frijns, 2010; Benartzi, 2001, Li et al. 2003; Ivkovic and Weisbenner, 2005; Stulz, 2005; Morse and Shive, 2006).

(DK) (1998). Most recent home bias studies that include regressions on panel or cross section data adjust the standard errors with White Estimator providing standard error estimates that are heteroskedasticity and autocorrelation consistent and with Driscoll and Kraay Estimator providing standard error estimates that are heteroskedasticity, autocorrelation and cross-sectional/spatial dependence consistent[15].

Coefficient estimates of pooled model with White standard error and Driscoll and Kraay standard error, Random effects model with White standard error and Tobit Model are presented in the Table 5.

Table 5. Coefficient estimates of variables

Measure	Expected Sign	Coefficient	Coefficient (Tobit 2)	Pooled White t-sta.	Pooled DK t-sta.	Random White z-sta.	Tobit 1 z-sta.	Tobit 2 z-sta.
EXCH	+	**0.3400**	0.4946	**1.02**	1.74*	1.05	0.80	1.12
WTAX	+	**0.0012**	0.0002	**2.71*****	4.27***	3.34***	1.95*	0.40
CONTROL	-	**-0.0013**	-0.0044	**-1.05**	-1.79*	-0.69	-0.65	-2.20**
BTRADE	-	**-0.3306**	-0.4112	**-2.76*****	-4.19***	-5.61***	-2.76***	-3.28***
DGEO	+	**-0.0796**	-0.0724	**-3.42*****	-4.82***	-3.57***	-2.92***	-2.72***
DCULT	+	**0.1123**	0.0054	**2.92*****	7.45***	2.45**	1.78*	0.85
GOVERN	-	**0.0011**	0.0017	**2.08****	4.33***	2.25**	1.82*	3.29***
INVPRO	-	**0.0070**	0.0078	**2.36****	3.97***	1.52	1.76*	2.01**
SIZE	-	**-0.0001**	-0.0003	**-0.96**	-1.40	-1.26	-1.33	-2.80***
LIQUID	-	**0.0000**	0.0000	**-0.21**	-0.42	-0.22	-0.16	-0.23
RETURN	-	**-0.0066**	-0.0028	**-0.53**	-0.92	-0.40	-0.52	-0.22
CORR	+	**-0.0493**	-0.1793	**-1.92***	-2.38**	-1.35	-1.11	-4.89***
EM	+	**0.0755**	0.1151	**3.01*****	4.78***	3.53***	3.19***	4.90***
GDPC	-	**-0.0088**	0.0126	**-0.49**	-1.39	-0.49	-0.36	0.52
TRADE	-	**-0.0013**	-0.0014	**-3.77*****	-6.26***	-6.56***	-7.55***	-8.13***
N (number of observations)				114	114	114	114	160
Nc (number of right cencored observations)							0	53
R² (coefficient of determination)				0.564	0.564	0.564		
R̄² (adjusted coefficient of determination)				0.498				
F / X² statistics				3.84	54.31	10367.45	147.65	158.66
P value (F / X²)				0.0000	0.0000	0.0000	0.0000	0.0000

Notes: Table 5 presents the results of panel regressions of home bias on explanatory variables; exchange rate volatility (EXCH), withholding tax (WTAX), capital control (CONTROL), bilateral trade (BTRADE), geographic distance (DGEO), cultural distance (DCULT), corporate governance (GOVERN), investor protection (INVPRO), market size (SIZE), market liquidity (LIQUID), return potential (RETURN), diversification opportunity (CORR), emerging market (EM), GDP per capita (GDPC) and foreign trade (TRADE). Last five columns present t and z statistics (sta.) for different estimators. **Pooled White** indicates pooled least squared

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15. Most empirical home bias studies provide robust standard error estimates with White Estimator (Ahearne et al. 2004; Faruqee et al 2004; Chan et al. 2005; Portes and Rey, 2005; Mishra and Daly, 2006; De Santis, 2006; Giofre, 2008; Mishra, 2008; Bekaert and Wang, 2009; Batten and Vo, 2010; Ferreira and Miguel, 2011; Mishra, 2011; Daly and Vo, 2013; Giofre, 2013) and with Driscoll and Kraay Estimator (Thapa and Poshakwale, 2012; Thapa et al. 2013).

model with White corrected standard errors, **Pooled DK** implies pooled model with Driscoll-Kraay corrected standard errors, **Random White** represents generalized least squared model based on standard errors adjusted using White method. Tobit Model was estimated in two different ways. Missing dependent variable datas are not censored to any value in model referred as **Tobit 1**. So in Tobit 1 number of observations is the same as pooled and random models. Unavailable dependent variable datas are right-censored as one in the model expressed as **Tobit 2**. In Tobit 2 model number of observations increase to 160 with dependent variables assumed to be one. ***p <. 01, **p <. 05, *p <. 1 and ***, ** , * indicate significance at the %1, %5 and %10 levels, respectively.

Table 5 indicates the panel regression results of Turkey's home bias measure by regressing home bias variable against the independent variables for the whole period of 2001-2010. Tobit estimator, Driscoll-Kraay method and random effects model yield mostly similar results with the White corrected pooled model but in a different way of explanation. Pooled model with White corrected standard errors is adopted as the base model by taking into account the it's widespread use of literature, pre-tests and the characteristics of the data set. Overall, the empirical results are consistent with the theory in that most of the variables (10 of 15) in our regression results appear consistent with the expected signs.

According to the results Turkish investors prefer to invest in markets with high bilateral trade and low cultural distance. In addition, the volume of foreign trade and withholding tax was also found to have an low impact on the Turkish investors investment decisions. It was observed that exchange rate risk, capital control, GDP per capita and size, liquidity and return potential of capital markets have no impact international stock investment decisions. Geographical distance, corporate governance and investor protection level and diversification opportunity variables are statistically significant but have not expected sign. Emerging market variable that has a significant relation in the expected sign shows that Turkish investors prefer less or more developed markets than emerging markets.

As a result it can be said that the main factors influencing the Turkish investors international stock investments in 20 countries during 10 years' time are familiarity and cultural factors. Target countries familiar and culturally closer even if they are deprived of the diversification opportunity (with high correlation), geographically distant, underdeveloped with poor corporate governance features receive greater share of Turkish investors equity investments.

Turkish investors prefer to make equity investments in familiar countries about which they have knowledge through trade relations and cultural similarities. The real or perceived information costs in the foreign investments are low in similar markets. Higher information cost or perception of having higher information costs direct investors who are less familiar with their destination market not to invest in foreign markets. The real information cost of foreign investments may provide Turkish investors with a competitive advantage in the local market. The perceived differences in the information cost of foreign investments leads Turkish investors to have some in-built prejudice against foreign investments. They may

impute extra risk to foreign investments because of knowing less and feel inadequate in assessment of these risks. Cultural proximity is a factor that contributes to the familiarity.

This study concluded that the most influential factors causing Turkish investors undervalue foreign investments or overvalue domestic investments are familiarity and cultural proximity of the target countries is consistent with the literature. French and Poterba (1991), Cooper and Kaplanis (1994) and Uppal (1992) has been argued that the unfamiliarity with the foreign assets in other words the real and perceived information cost on foreign assets should be examined as important determinants of home bias. Kang and Stulz (1997), Coval and Moskowitz (1999), Grinblatt and Keloharju (2001), Portes and Rey (2005), Chan et al. (2005), Bekaert and Wang (2009), Ke et al. (2010), Thapa et al. (2013) and Daly and Vo (2013) showed that familiarity/information cost is an important factor on the investor's equity investment preferences. Studies conducted by the Anderson et al. (2011) and Beugelsdijk and Frijns (2010) revealed that cultural factors and cultural distance have effect on biases.

Based on these findings, it is concluded that Turkish investors tend to be influenced by behavioral factors rather than institutional factors in international equity investments. This results is compatible with pioneering studies (Cooper and Kaplanis, 1994; French and Poterba, 1991; Tesar and Werner, 1995; Strong and Xu, 2003; Portes and Rey, 2005) suggesting that home bias observations of international investments are result of behavioral reasons/investor choices rather than institutional constraints.

Investors may be more optimistic about domestic equities and they may impute extra risk to foreign investments or lower their return expectations in foreign markets they know less about (French and Poterba, 1991). Foreign markets are perceived less risky simply because they are similar to the Turkish market. Turkish investors perceive that information cost is high in countries with which they are not familiar and where cultural diversity is high and so they feel inadequate there. On the other hand they feel they are in a better position than others in assessing similar situations because they perceive that there are not information asymmetries in similar markets. These behavioral factors direct Turkish investors to hold securities in countries familiar or with which they feel familiar.

4. CONCLUSION

Main factor that motivates portfolio investors to purchase and hold foreign securities in their portfolio is international diversification that often has a higher expected rate of return and nearly always has a lower level of portfolio risk. Traditional view suggests that investors should be better off diversifying internationally as long as the foreign markets are imperfectly correlated with the domestic market. Investors gain the same return from engaging in international investment achieving a more efficient portfolio.

The ICAPM predicts that to maximize risk-adjusted returns, rational investors should hold the world market portfolio of risky assets. In spite of this, even in today's integrated global financial markets, it is well documented that domestic investors exhibit strong

preference for their own domestic stocks holding most of their wealth in domestic assets. The term used to describe this phenomenon, home bias, suggests that investors are irrational when they eschew the potential gains to diversification. Home bias continues to be a puzzle in the financial literature. Numerous explanations have been advanced for the home bias in finance literature. International market frictions such as currency risk, capital controls and taxes on foreign equity are not solely responsible for investor's preference of local assets. Researchers focused on behavioral factors such as familiarity and cultural proximity because rational/intuitional explanations can only explain part of the bias.

In this study the determinants of the equity home bias for Turkish investors is analyzed. Panel Regression Analysis is employed to determine the factors affecting Turkey's bilateral home biases with 20 host countries in the period of 2001 and 2010. Findings revealed that Turkish investors make most of their equity investments in their own county by not benefiting from the advantages of international diversification and home bias of Turkish investors tend to reflect the combination of familiarity and cultural factors. Behavioral factors are more effective than institutional factors in Turkish investor's international portfolio investments. Main determinants of Turkish investors' home bias in international equity investments are bilateral familiarity and cultural distance. Besides foreign trade volume and withholding tax rate slightly affect the foreign equity investment decisions. Turkish investors prefer to allocate their stocks investment in countries that are familiar and culturally close even if these markets are deprived of the possibility of diversification, geographically distant and frontier markets with weak corporate governance.

High home biases seen in the emerging markets adversely affect welfare by increasing its level of segmentation and cost of capital. Increased foreign equity investments of Turkey will contribute to the reduction of cost of capital. The development of the gross savings and institutional investors is expected to help Turkey to approach the optimal level of international portfolio investments. Subsequent researchers who want to investigate the causes of the Turkey's home bias are suggested to focus on behavioral factors that are increasingly important in the literature. Also the influencing factors of home biases towards to Turkish stock and bond market also can be analyzed.

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