The Impact of Global Capital Flows on Firms' Performance: Evidence from Turkey

IGU J. Soc. Sci.,
4 (2), Spec. Iss. of
ICEFM 2017,
pp. 1-16.

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Abstract

In the globalizing world, the impact of international capital flows on the economies is increasing day by day. Firms, the smallest units in the economy, are directly affected by developments. The purpose of this study is to examine the effect of international capital flows on firm performance. The study, using panel data analysis, covers 120 companies in the Stock Exchange Istanbul (BIST) Industrial Production Index in the 2004-2015 period. Two models have been developed with ROA and ROE as dependent variables, which are selected as company performance measures. According to the general results of the study with employing Swamy's random coefficient model: the ratios of the direct foreign capital flows to GDP and the portfolio investments to GDP are not statistically significant on firm profitability; and it has been conducted that the ratios of other investments and short-term foreign capital flow to GDP have an effect on the profitability of the firms. The findings include also eight sub-sectors results in the manufacturing industry.

Keywords: Firm's Profitability, International Capital Flows, Turkish Manufacturing Sector, Swamy's RCM, Sectors in Manufacturing Industry

JEL Classification: E22, E44, F21, O16

Uluslararası Sermaye Hareketlerinin Firma Performansına Etkisi: Türkiye Örneği

Öz

Küreselleşen dünyada uluslararası sermaye hareketlerinin ülke ekonomileri üzerindeki etkisi her geçen gün artmaktadır. Ekonomideki en küçük ekonomik birim olan şirketler, yaşanan gelişmelerden doğrudan etkilenmektedir. Bu çalışmanın amacı uluslararası sermaye hareketlerinin şirket performansı üzerindeki etkisinin

Özgün Araştırma Makalesi (Original Research Article)
Geliş Tarihi: 03.07.2017 Kabul Tarihi: 28.11.2017
DOI: http://dx.doi.org/10.17336/igusbd.323752
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araştırılmasıdır. Panel veri analizinin kullanıldığı çalışma, 2004-2015 döneminde Borsa İstanbul (BIST) Ulusal Sınai Endeksi'nde yer alan 120 adet şirketi kapsamaktadır. Çalışmada şirket performans ölçüsü olarak seçilen ROA ve ROE'nin bağımlı değişken olduğu 2 ayrı model kurulmuştur. Swamy'nin tesadüfi katsayılar modelinin kullanıldığı çalışmanın genel sonuçlarına göre ödemeler dengesinde yer alan doğrudan yabancı sermaye hareketleri ve portföy yatırımlarının GSYH'ya oranlarının şirket performansı üzerinde istatistiki olarak etkisinin bulunmadığı; diğer yatırımlar kaleminin ve kısa vadeli yabancı sermaye hareketlerinin GSYH'ya oranlarının şirket karlılığı üzerinde etkisinin var olduğuna ulaşılmıştır. Çalışmada ayrıca imalat sanayini oluşturan 8 alt sektöre ilişkin sonuçlara da yer verilmiştir.

Anahtar Kelimeler: Şirket Karlılığı, Yabancı Sermaye Hareketleri, Türkiye İmalat Sanayi, Swamy'nin Tesadüfi Katsayılar Modeli, İmalat Sanayii Sektörleri

JEL Classification: E22, E44, F21, O16

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Introduction

The increase in the capacity and volume of production leads to economic growth. Production in Turkey is mostly carried out by three main sectors that are identified as agriculture, industry and services. Manufacturing with the highest share leads the industrial sector that includes all the production activities. A series of investments should be carried out by providing the necessary finance for the production activities. In case of unavailability of domestic resources, foreign capital or external borrowing may be required. The transmission of funds for investment purpose by residents and corporations in a country to residents and corporations of another country is defined as capital flows. Capital flows can be observed through the capital account in the balance of payments. The process of liberalization takes place with suppression of restrictions of capital inflow and outflow.

The theoretical base of capital flows liberalization was formed by the studies of Mc. Kinnon and Shaw based on the neo-classical theory. These works that are named after Mc Kinnon and Shaw mainly suggest that: Achieving financial deepening by ruling out financial stress boosts the efficient allocation of resources and economic growth[1]. Accordingly by the means of liberalization the rate of interest is raised in the developing countries that do not have sufficient savings, savings of the developed countries are channeled to these countries and this process continues till the rates of interest are balanced. In this way, resources used by the country are expanded through capital flows that obtain mobility under favor of financial liberalization and

[1] Edward Shaw, *Financial Deepening in Economic Development,* Oxford University Press, London, 1973, s. 10-11.

investments for production purpose are increased. Thus, countries featuring a limited volume of savings are able to provide finance; on the other hand, investors enjoy the possibility to distribute their risks through portfolio diversification[2].

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Save that through history particularly in developing countries, the foreign capital that is envisaged to be used in the finance of investments has not been always subject to a sustainable in every period and in every country. Notably, short term capital flows with speculation motive in some periods caused fluctuations in the economy and enhanced vulnerability. For this reason, decision makers investigated ways to reduce the short term speculative capital flows.

Rapid and sustained growth can be realized with the increase in production in the real sectors. In general, it is generally accepted that pushing power of economic growth is the growth in the real sector. There is a vast literature investigating the macroeconomic impact of foreign capital flows. They are often blamed for its balance of payments effects: the investing country faces a sudden deficit when capital income-outcome occurs. Nevertheless, number of studies focusing on how companies, the smallest units in the economy, are affected by the foreign capital flows is limited. The increase of production volume is related to the financial situation of the producing companies. For this reason, the economic growth via production volume is closely related to company's profitability. The aim of this paper is to investigate the impact of international capital flows on the profitability of companies that has the largest share in the manufacturing industry of Turkey. This way negative or positive effect of the international capital flows on the company's profitability shall be considered.

Literature Review

A lot of research has been performed to explain the reasons for the international capital flows and its effect. Some of them are the results of trade theories under a perfect market set up, some of them have been developed from the imperfect market conditions. Despite their different approaches, theories are unanimous in their view that a firm moves abroad to reap the benefits of advantage enjoyed by them in the form of location, firm- specific or internationalization of markets. Theories also articulate the fact that government policies on the domestic economy also play an important role in

[2] Targan Ünal, *Finans Kesiminin Reel Sektöre Kaynak Yaratma Kapasitesi: Türkiye Örneği,* İTO Yay. İstanbul, Yayın No:1996-31, s.49

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encouraging international investment by firms[3]. The basic rule in an international economics is that if any country has a surplus or deficit in its current account, it must balance this surplus or deficit by outflowing or inflowing capital to abroad to close that difference.

According to the principles of neoclassical economics, the effects of capital flows can be classified into economic, political and social. The economic effects of capital flows can be separated into macro and micro effects that pertain to structural changes in the economic and industrial organization. Besides, conducive to the creation of a more competitive environment, it might entail worsening of the monopolistic or oligopolistic elements in the host country[4].

Alfaro found that FDI into the different sectors of the economy (agriculture, manufacturing, and services) exert different effects on economic growth. FDI inflows into the primary sector tend to have a negative effect on growth, whereas FDI inflows in the manufacturing sector a positive one[5].

Markusen and Venables showed in their studies the effect of foreign firms on the development of domestic firms in the industrial sector. FDI on the home economy effective in two main channel. One of them is product market competition through multinational firms substitute domestic firms and linkage effects through which multinationals may be complementary. As a result, FDI is most likely to have a positive impact on host country development[6].

Kindleberger, put forward his theory of Foreign Direct Investment (FDI) on the basis of monopolistic power. Kindleberger argued that advantages enjoyed by multinational companies could be useful only in the case of market imperfection. According to Kindleberger in the form of superior technology, managerial expertise, patents described as an advantage by which various forms of advantages generally enjoyed by a firm over the host country firm, but he failed to describe which advantage a firm should focus on[7].

Estimation spillover effects of foreign direct investments, studied by Aslanoglu, on Turkish manufacturing industry results suggest that while the presence of foreign firms increases competition in domestic industries, there

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[3] Dinkar Nayak and Rahul N. Choudhury, "A Selective Review of Foreign Direct Investment Theories, Asia-Pacific Research And Training Network On Trade", 2014, *Working Paper* No. 143,.

[4] Imad A. Moosai, *Foreign Direct Investment Theory, Evidence and Practice,* Palgrave, ISBN 978-1-4039-0749-3, 2002.

[5] Laura Alfaro, "Foreign Direct Investment and Growth: Does the Sector Matter?" *Harvard Business School*, 2003 April.

[6] James Markusen and Anthony Venables, "Foreign Direct Investment as a Catalyst for Industrial Development", *European Economic Review,* 1999, 43: 335-338.

[7] Charles Poor Kindleberger. *American Business Abroad*. Yale University Press, New Haven, Ct, 1969, United States.

is no significant contribution on the productivity of domestic firms. If locational advantages of the country are developed by proper policies, spillover effects on the domestic industries could be materialized with the rising competition, which has already brought into by the presence of foreign firms[8].

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Methodology and Data

Definitions of the variables we used and their sources are presented in Table 1 below. We measure profitability by return on equity (ROE) which is net profit by the year divided by equity and the return on assets (ROA). It shows the percentage of how profitable a company's assets are in generating revenue. The capital inflows measure is written into the financial account on the balance of payments and shown as an independent variable in our study. There are a three components of financial account. The first one is Foreign Direct Investment (FDI or FDInvest); Although, known as a main nonfinancial flow because of the capital it could be used in the construction of new plants, factories, firms or equipment which will in turn enhance overall productivity. It includes many financial capital parameters such as equity capital, reinvestment of earnings and other long and short term capital flows. It also considered to be a better choice for economic growth compared to other components of financial flows (Noy & Vu: 2007). Portfolio Investment is capital could be used in equity securities and debt securities and "other investments" such as trade credits and "...short-and long-term credits; loans...; currency and deposits...; and other accounts receivable and payments" (IMF: 1993). In addition to these three forms Short-Term Capital Flows[9] used to comprise a wide array of financial transactions, these are trade credits, commercial bank loans with a maturity of less than one year, and in local and foreign currencies short-term private and public debt issued abroad or sold to non-residents.

[8] Erhan Aslanoğlu, "Spillover Effects of Foreign Direct Investments on Turkish Manufacturing Industry", *Journal of International Developments,* 2000, 12: 1111–1130. doi:10.1002/jid.701

[9] Calculation of SCF: "(Money Market Instruments) + (Short-Term Credit + Short-Term Trade Credit + Short-Term Loans + Currency and Deposits + (Other Short-Term Assets)".

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Table 1: The Variables Used in Capital Flows to Firms Profitability

Variables	**Symbol**	**Description**	**Calculation**		**Data Sources**
Dependent	**ROA**	Return on Assets	Net Income / Average Total Assets		Turkey Public Disclosure Platform (www.kap.gov.tr)
	ROE	Return on Equity	Net Income / Average Shareholder's Equity		
Variables	**Symbol**	**Description**		**Expected Effect**	**Data Sources**
Independent	**FDInvest**	Foreign Direct Investment / GDP		?	Central Bank of the Republic of Turkey (www.tcmb.gov.tr)
	OInvest	Other Investment / GDP		?	
	PInvest	Portfolio Investment / GDP		?	
	SCF	Short-Term Capital Flows / GDP		?	
Explanatory	**INT**	Benchmark Interest Rate of Turkey		-	Matrix Database
	Exch	Average Dollar Price (TL)		-	OECD Statistics (www.oecd.org)
	VIX	Chicago Board Option Exchange's Market Volatility Index		+	Chicago Board Options Exchange (www.cboe.com)

In order to control for global factors, we include the implied volatility of the S&P500 index (VIX), the U.S. default yield spread, the 10-year U.S. VIX shows to risk taking level on global volume increases profitability of the firms.

As a macro variables and explanatory, we include Benchmark Interest Rate of Turkey, which has positive impact capital flows for host country in case of increasing situation[10]. But; high interest rate in a host country has negative impact on profitability and attractiveness of the corporate sector due to its high debt to equity ratios, which may reduce the capital inflow. In other words, the increased interest rates represent the increased risk of the country[11].

Summary statistics of variables are provided in Table 2. The quarterly data set were compiled for the period 2005-2015, for a sample of 120 firms in 8 sector, resulting in 3456 pooled observations.

[10] Robert Gross and Len I. Trvino. 1Determinants of Foreign Direct Investment", *Journal of International Economics*, 1969, Volume 45, 115- 135.
[11] Kang, S., etc, "Understanding the Determinants of Capital Flows in Korea: An Empirical Investigation", *Korea Institute for International Economic Policy Analyses,* 02-03, 2002- 12-20.

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Table 2: Summary Statistics of Variables

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
ROA	384	0.013	0.019	-0.067	0.138
ROE	384	0.025	0.038	-0.212	0.220
FDInvest	384	0.019	0.018	0.001	0.090
OInvest	384	0.029	0.031	- 0.032	0.118
PInvest	384	0.018	0.028	- 0.049	0.082
SCF	384	0.006	0.029	- 0.084	0.036
Int	384	0.140	0.059	0.064	0.265
VIX	384	0.028	0.281	-0.392	1.337
Exch	384	0.018	0.061	-0.081	0.275

Empirical Methodology

This paper attempts to test the factors affecting the firm's profitability by panel data analysis. Two models have been used with ROA and ROE as dependent variables. The explanatory variables are the same in both models. In order to determine the most appropriate panel data model, Swamy test has been used.

$H_0 : \beta_i = \beta \quad I = 1,2,3\ldots,N$
$H_0 : \beta_i \neq \beta$

N is the number of eight sectors, which are analyzed in our study by averaging 120 firms from the manufacturing industry. The homogeneity test results reveal that parameters are heterogeneous and therefore they should be tested with heterogeneous panel data models[12]. The results of the Swamy tests which determine the parameter homogeneity are presented in the table 3 below.

[12] Ferda Yerdelen Tatoğlu, *İleri Panel Veri*, İstanbul: Beta Yayınları, 2012.

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Table 3: Test of Parameter Constancy

Models	**Dependent Variable**	**Test of parameter constancy**
Model 1	ROA	χ 2 (56)= 228.11 [0.0000]*
Model 2	ROE	χ 2 (56)= 235.24 [0.0000]*

* means % 1 significance level.

In accordance with the results of Swamy tests, it has been concluded that heterogeneous panel data models should be used and Swamy Random Coefficient Model should be employed. Sways Random coefficient Model suitable has two advantages for this research; besides it shows general models result, concludes how all separated units are effected from dependent variables.

Swamy Random Coefficient Model (RCM)

Random-Coefficient Model developed by Swamy (1970-1971) allows randomly each panel to have its own vector of slopes that drawn from a common distribution. the following model for the its individual;

$y_i=X_i(\bar{\beta}+\mu_i)+e_i \qquad i = 1,2,3,.....,N$

where y_i and X_i contain observations on the dependent and explanatory variables, respectively, and

$\beta i=\bar{\beta}+\mu_i$ with $E(\mu_i)=0$, $E(\mu_i\mu'_j)=\Delta$, $E(\mu_i\mu'_j)=0$ for $i \neq j$

For this model, we are interested in estimating the mean coefficient and each individual. In this study, GLS (Generalized Least Squares) estimator is used for this purpose[13] .

Models

The first Swamy model with ROA and ROE as the dependent variables are given below.

$$ROA_{it} = \beta_0 + \beta_1 FDInvest_{it} + \beta_2 PInvest_{it} + \beta_3 OInvest + \beta_4 SCF + \beta_5 Int + \beta_6 VIX + \beta_7 Exc + e_{it} \quad (1)$$

[13] Cheng Hsiao, Analysis of Panel Data, *Cambridge University Press.* Cambridge, Second Edition, 2003.

$$ROE_{it} = \beta_0 + \beta_1 \text{FDInvest}_{it} + \beta_2 \text{PInvest}_{it} + \beta_3 \text{OInvest} + \beta_4 \text{SCF} + \beta_5 \text{Int} + \beta_6 \text{VIX} + \beta_7 Exc + e_{it} \quad (2)$$

The data from the 120 firms in eight sectors have been subject to homogeneous and heterogeneous panel data analysis. Pooled OLS is used in homogeneous panel data analysis and Swamy's RCM is employed in the heterogeneous analysis.

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Table 4: The Results on Pooled OLS and RCM

MODEL 1 - ROA		
Variables	**Homogeneous**	**Heterogeneous**
FDInvest	-0.0518 (0.0523)	-0.0379 (0.0564)
OInvest	0.0275 (0.0337)	0.0707* (0.0385)
PInvest	0.0590* (0.0319)	0.0335 (0.0287)
SCF	-0.0928* (0.0322)	-0.0889* (0.0330)
INT	-0.0298* (0.0164)	-0.0263 (0.0209)
Exch	0.0251* (0.0040)	-0.1174* (0.0257)
VIX	-0.1276* (0.0199)	0.0226* (0.0057)
Constant	0.0173* (0.0028)	0.0160* (0.0048)
F/Wald	10.45 [0.0000]	χ 2 (7)=40.80 [0.0000]
Number of Obs. / Groups	0.1628 384/8	384/8

* means % 1 significance level.

MODEL 2 ROE		
Variable	**Homogeneous**	**Heterogeneous**
FDInvest	-0.1036 (0.1080)	-0.0786 (0.1059)
OInvest	0.0493 (0.0695)	0.1490* (0.0721)
PInvest	0.1285* (0.0658)	0.0591 (0.0560)
SCF	-0.1674* (0.066)	-0.1609* (0.0599)
INT	-0.086* (0.0340)	-0.0874* (0.0427)
Exch	0.0482* (0.0084)	-0.2365* (0.0554)
VIX	-0.2578* (0.0411)	0.0450* (0.0120)
Constant	0.0367* (0.0059)	0.0355* (0.0103)
F/Wald	9.40 [0.0000]	χ 2 (7)= 34.47 [0.0000]
Number of Obs. / Groups	0.1489 384/8	384/8

* means % 1 significance level.

The findings of Models based on general results:

Shown the Table 3 that test of parameter constancy is rejected, therefore it can be concluded that the panel data is heterogeneous. We therefore employ Swamy Random Coefficient Model. The test results show that the coefficients for FDI not significant, but OInvest is significant %1 level.

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Portfolio Investment is not significant but SCF is significant at 1% level. All two models are similar with signifigiancy and expected effect. It seems plausible that our explanatory variables INT, Exch and VIX are also significant at the 1% and in compliance with model 1 and model 2 except INT with model 1. The estimations show that higher INT, VIX lead to lower profitability. Moreover, the results display that higher Exch lead to higher profitability.

The findings for the effect of capital flows on ROA of eight sectors in manufacturing industry are presented below in Table 5.

Table 5. Model 1 - ROA

Sector Code	FDInvest	OInvest	PInvest	SCF	Exch	Int	VIX
	-0.0379 (0.0564)	0.0707* (0.0385)	0.0335 (0.0287)	-0.0889* (0.0330)	-0.1174* (0.0257)	-0.0263 (0.0209)	0.0226* (0.0057)
S 1	-0.1289*** (0.0737)	0.1235** (0.0527)	0.0593*** (0.0351)	-0.0878** (0.039)	-0.1630* (0.0360)	-0.0499*** (0.0285)	0.0351* (0.0108)
S 2	-0.0044 (0.0706)	0.0857*** (0.0479)	0.0534*** (0.0324)	-0.0369 (0.0383)	-0.1391* (0.0335)	0.0106 (0.0260)	0.0271* (0.0085)
S 3	-0.0452 (0.0699)	0.0354 (0.0470)	-0.0031 (0.0319)	-0.1000* (0.0381)	-0.1527* (0.0329)	-0.0675* (0.0255)	0.0316* (0.0082)
S 4	-0.0656 (0.0520)	0.0860* (0.0310)	0.0405*** (0.0246)	-0.0510*** (0.0308)	-0.0541** (0.0216)	-0.0209 (0.0171)	0.0039 (0.0044)
S 5	-0.0400 (0.0730)	0.1001*** (0.0514)	0.0601*** (0.0343)	-0.1443* (0.039)	-0.1006* (0.0354)	0.0074 (0.0278)	0.0375* (0.0100)
S 6	-0.0572 (0.0724)	0.0054 (0.0540)	-0.0057 (0.0366)	-0.0848** (0.0409)	-0.1411* (0.0356)	-0.0500*** (0.0294)	0.0223 (0.0170)
S 7	0.1260** (0.0635)	0.0653*** (0.040)	0.0104 (0.0286)	-0.1579* (0.0358)	-0.0856* (0.0284)	0.0303** (0.0220)	0.0190* (0.0064)
S 8	-0.0774 (0.0594)	0.0532 (0.0366)	0.0453*** (0.0269)	-0.0323 (0.0341)	-0.0945* (0.0258)	-0.0461** (0.0201)	0.0095*** (0.0056)

On the top of the table; *, ** and *** respectively indicates the significance level of parameters %1, %5 and %10; values in boxes are coefficients and standard deviations.

The results on sectoral basis, evaluating at five percentage significance level; FDInvest have no effect on profitability for all sector in manufacturing industry. Other Investment have an effect on profitability in 2 sector. Portfolio Investment have no effect on profitability for all sector in manufacturing industry. Short-Term Capital Flows have an effect on profitability in 5 sector. Exchange Rate have a remarkably effect on profitability in all sector. Interest Rates have an effect on profitability in 5 sector. VIX have an effect on profitability in 3 sector.

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The findings for the effect of capital flows on ROE of eight sectors in manufacturing industry are shown below in Table 6.

Table 6. Model 2 - ROE

Sector Code	FDInvest	OInvest	PInvest	SCF	Exch	Int	VIX
	-0.0786 (0.1059)	0.1490* (0.0721)	0.0591 (0.0560)	-0.1609* (0.0599)	-0.2365* (0.0554)	-0.0874* (0.0427)	0.0450* (0.0120)
S 1	-0.3050** (0.1349)	0.2971* (0.095)	0.1437** (0.0675)	-0.1797** (0.0748)	-0.3778* (0.0788)	-0.1274** (0.0608)	0.0783* (0.0167)
S 2	-0.0329 (0.1219)	0.181** (0.0818)	0.0774 (0.0600)	-0.1194*** (0.0739)	-0.2885* (0.0678)	-0.0087 (0.0532)	0.0549* (0.0137)
S 3	-0.1330 (0.124)	0.0875 (0.0842)	0.0168 (0.0613)	-0.1786** (0.0745)	-0.3163* (0.0701)	-0.2048* (0.0548)	0.0592* (0.0143)
S 4	-0.1597 (0.1084)	0.1802* (0.0688)	0.0698 (0.0536)	-0.0867 (0.0679)	-0.1532* (0.0545)	-0.1210* (0.0436)	0.0183*** (0.0109)
S 5	-0.0887 (0.1270)	0.2193** (0.0870)	0.1253** (0.0628)	-0.2682* (0.0750)	-0.2160* (0.0726)	-0.0299 (0.0566)	0.0606* (0.0149)
S 6	0.0074 (0.1371)	0.0458 (0.0990)	-0.0043 (0.0698)	-0.1462** (0.0709)	-0.2378* (0.0786)	-0.0718 (0.0596)	0.0374** (0.0176)
S 7	0.181*** (0.1016)	0.0683 (0.0630)	0.0102 (0.0510)	-0.2136* (0.0640)	-0.1293* (0.0483)	-0.0262 (0.0389)	0.0309* (0.0097)
S 8	-0.1022 (0.1066)	0.1138*** (0.0672)	0.0349 (0.0528)	-0.1008 (0.0669)	-0.1711* (0.0528)	-0.1174* (0.0423)	0.0205*** (0.0106)

On the top of the table; *, ** and *** respectively indicates the significance level of parameters %1, %5 and %10; values in boxes are coefficients and standard deviations.

The results on sectoral basis, evaluating at five percentage significance level; FDInvest have an effect on profitability in one sector. "Other Investment" have an effect on profitability in four sector. Portfolio Investment have an effect on profitability in two sector. Short-Term Capital Flows have an effect on profitability in five sector. Exchange Rate have a remarkably effect on profitability in all sector. Interest Rates have an effect on profitability in six sector. VIX have an effect on profitability in three sector.

The results show that, with respect to panel analysis based on manufacturing industry and its eight sector: Although; foreign direct investment and portfolio investment does not importantly effect firms profitability, two capital flows variables produced remarkable effects on firms profitability: "other investments" (1) which mostly include credits and trade credits and short-term capital flows (2) effects mainly all sectors in manufacturing sector. It has been analyzed that direct investments have a remarkably impact on the both of profitability variables of two sectors (S1 and S7). Portfolio investment is mostly effecting ROE and negatively. When the

results are evaluated in the aspect of sector, all variables are significantly effective on the S1.

Conclusion

The impact of capital flows to profitability of firms has not been subject to previous research. This study attempts to determine the effect of capital flows to firm's profitability in Turkey over the period from 2004:4 to 2015:4. Using quarterly data collected from the unconsolidated financial statements of the firms, a balanced panel data set has been constructed and Swamy's Random Coefficients Model has been employed.

This research has three objectives:

- ✓ Provide an empirical methodology that can estimate impact of capital flows on firm's profitability in the host country.
- ✓ Evaluate the effect of capital flows on sectoral basis
- ✓ Evaluate the effect of classified capital flows on firms profitability

According to the results from manufacturing industry, it has been found that FDI have a no effect to firm's profitability. However, "Other investments" have a positive effect on firm's profitability. Results show that: due to trade credits and advance and other assets & equity may increase firm's profitability.

Except for the capital flows we focus on, "short-term capital flows" is significant and have a negative impact, but portfolio Investment is not effective on firm's profitability. So that large and uncontrollable amounts of short-term capital flows to host country in a short period of time might cause collapse of the financial sector, for profitability of firms, "other investments" might be effective for policy. According to IMF; other investment covers short- and long-term trade credits, use of fund credit, loans from the fund, and loans associated with financial leases, currency and deposits, term deposits, savings and loan shares, shares in credit unions, and other accounts receivable and payable.

When the results are evaluated on sectorial basis; all variables are significantly effective on the food, beverage and tobacco sectors (S1).

Exchange Rate have a negative impact on profitability. Due to exchange rate have a direct effect on costs, higher Exchange Rate increases profitability of firms.

Higher interest rate is result of lower profitability as same as exchange rate. Higher interest rate is a probably because of funding cost for firms and demand contraction in terms of consumer.

VIX shows to risk taking level on global volume. VIX have a positive impact on the firm's profitability. Increase in global risk appetite generates capital inflows to domestic economy. And VIX have a positive impact on Turkish economy and firm's profitability. This finding is in conformity with the previous studies. It has also been found that a domestic factor such as interest rate has a significant impact on firm's profitability.

Note: *A preliminary version of this paper was presented at the "International Economics, Finance and Management" conference (ICEFM2017) hosted by Istanbul Gelisim Universty, Istanbul on April 13-15, 2017.*

IGU J. Soc. Sci., 4 (2), Spec. Iss. of ICEFM 2017, pp. 1-16.

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Özet

Bilgi ve iletişim teknolojilerinde yaşanan gelişmeler, dünya genelinde yatırımların izlenmesini ve değerlendirilmesini kolaylaştırmıştır. Bu süreçte gelişmekte olan ülkelerin daha fazla yabancı yatırımcı çekebilmek için finansal bütünleşmeye katılmak amacıyla finansal piyasalarını, kambiyo rejimlerini ve sermaye hareketlerini serbestleştirme yoluna gitmeleri ile günümüzde uluslararası sermaye hareketlerinin büyüklüğü ve ekonomiler üzerindeki etkisi daha bir önemli hale gelmiştir. Bu noktada uluslararası sermaye hareketlerinin ülke ekonomileri (makro ekonomik göstergeler) üzerindeki etkisini inceleyen bir çok çalışma bulunmaktadır. Ancak uluslararası sermaye hareketlerinin ekonomideki en küçük birim olan şirketler üzerindeki etkisini doğrudan araştıran çalışma sayısı ise son derece sınırlıdır. Şirket performansı üzerinde uluslararası sermaye hareketlerinin etkisini ortaya koymak amacıyla yapılan çalışmamız, bu yönüyle literatürde önemli bir eksikliği de gidermeyi amaçlamaktadır.

Çalışma, gelişmekte olan ülkeler katergorisinde yer alan Türkiye'de, 8 farklı alt sektörde faaliyet gösteren ve 2004-2015 yılları arasında BIST ulusal sanayi endeksinde yer alan 120 adet şirketi kapsamaktadır. Panel veri analiz yönteminin kullanıldığı çalışmada her bir dönemin uzunluğu 3 aydır. Çalışmada şirket performans ölçücü olarak seçilen ROA ve ROE'nın bağımlı değişken olarak yer aldığı iki model kurulmuştur. Her iki modelde de kullanılan bağımsız değişkenler aynıdır.

Çalışmada uygulanan Swamy'nin Tesadüfi Katsayılar modelinin genel sonuçlarına göre uluslararası sermaye hareketlerini temsilen kullanılan doğrudan yabancı sermaye hareketleri ve portföy yatırımlarının GDP'ye oranlarının ROA ve ROE üzerinde istatistiki olarak anlamlı bir etkisinin bulunmadığı gözlenmiştir. Ancak uluslararası sermaye hareketlerini temsilen kullanılan diğer iki bağımsız değişken olan diğer yatırımlar kaleminin GDP'ye oranının ROA ve ROE üzerinde anlamlı ve pozitif; kısa vadeli yabancı sermaye hareketlerinin GDP'ye oranının ise ROA ve ROE üzerinde negatif ve anlamlı bir etkisinin olduğuna ulaşılmıştır.

Uluslararası sermaye hareketlerinin imalat sanayinde yer alan alt sektörler üzerindeki etkisi ise farklılıklar göstermektedir. Diğer yatırımlar kaleminin çalışmada yer alan 8 alt sektörden 6'sının ROA'sı ve 5'inin ROE'si üzerinde pozitif bir etkisi bulunurken, kısa vadeli yabancı sermaye hareketlerinin ise 6 sektörde ROA ve ROE üzerinde negatif etkisi bulunmaktadır. Gıda-içki ve tütün sektöründe (ya da bu alanda faaliyet gösteren şirketler) yer alan şirketlerin ROA ve ROE'sinin ise uluslarararası sermaye kalemlerinin tamamından istatistiki olarak etkilendiği sonucuna ulaşılmıştır.

ANNEX

CODE	SECTORS IN MANUFACTURING INDUSTRY INCLUDED ANALYSIS
S1	FOOD, BEVERAGE AND TOBACCO
S2	PAPER AND PAPER PRODUCTS, PRINTING AND PUBLISHING
S3	CHEMICALS, PETROLEUM RUBBER AND PLASTIC PRODUCTS
S4	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT
S5	BASIC METAL INDUSTRIES
S6	WOOD PRODUCTS INCLUDING FURNITURE
S7	NON-METALLIC MINERAL PRODUCTS
S8	TEXTILE, WEARING APPAREL AND LEATHER