

Makale Gönderim Tarihi: 07/04/2019 – Makale Kabul Tarihi: 28/05/2019

IS THERE A RELATIONSHIP BETWEEN SHORT-TERM CAPITAL MOVEMENTS AND BALANCE OF FOREIGN TRADE? AN EMPIRICAL STUDY ON TURKEY

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Abstract

This work inquires whether there's a correlation between short-term capital movements and the net balance of foreign trade. To this end, the annual data pertaining to portfolio investment and net foreign trade balance of Turkey data received from the IMF for the period between 1986-2017 have been tested with the ARDL bounds test approach and were studied in regard to Error Correction Model (ECM). And to query short-term relationship, Granger Test over the ECM Model has been applied. In the light of the analyzes, a relationship was found between the variables in both long and short terms. The literature shows a number of studies on the impact of capital movements on various macro-economic variables, yet none on the empirical evidence of the impact and correlation of those movements on net foreign trade balance. The purpose of this study is to test the relationship between capital inflows and foreign trade balance and make a contribution to the literature. Portfolio investments are predominantly used in financing the current account deficit, these flows though result in a foreign trade deficit, which in turn contributes to the current account deficit. The result of this study will be significant for policy makers in managing this vicious circle.

Keywords: Capital Movements, Portfolio Investments, Net Foreign Trade Balance, Bounds Test, ARDL

KISA VADELİ SERMAYE HAREKETLERİ İLE DIŞ TİCARET DENGESİ ARASINDA BİR İLİŞKİ VAR MI? TÜRKİYE ÜZERİNE AMPİRİK BİR ÇALIŞMA

Öz

Bu çalışmada kısa vadeli sermaye hareketleri ile net dış ticaret dengesi arasında korelasyon olup olmadığı sorgulanmıştır. Bu amaçla, Türkiye'nin 1986-2017 dönemine ilişkin portföy yatırımları ve net dış ticaret dengesine ilişkin Uluslararası Para Fonu'ndan (IMF) alınan yıllık verileri, ARDL sınır testi yaklaşımı ile test edilmiştir ve Hata Düzeltme Modeli (ECM) çerçevesinde incelenmiştir. Kısa dönem ilişkisini sorgulamak üzere ise ECM Model üzerinden Granger Test uygulanmıştır. Analizler sonucunda değişkenler arasında hem uzun hem de kısa vadede bir ilişki saptanmıştır. Literatür taramasında sermaye hareketlerinin çeşitli makro-iktisadi değişkenler üzerine etkileri üzerine çalışmalar yapıldığı görülmüş, ancak net dış ticaret açığı ile korelasyon ve etkilerinin ampirik olarak kanıtlandığı çalışmalara rastlanılmamıştır. Bu çalışmanın amacı; sermaye girişleri ile dış ticaret dengesi arasındaki ilişkiyi sınamaktır ve literature bir katkı niteliğindedir. Cari açığın finansmanında ağırlıklı olarak portföy yatırımları kullanılmaktadır, bu akımlar dış ticaret açığına neden olmaktadır ve bu da cari açığa katkıda bulunmaktadır. Bu çalışmanın sonucu, bu kısır döngünün yönetiminde politika yapıcılar açısından önemli olacaktır.

Anahtar Kelimeler: Sermaye Hareketleri, Portföy yatırımları, Net Dış Ticaret Dengesi, Sınır Testi, ARDL

Introduction

According to Nurkse (1952: 571), who -with his "A country is poor because of it is

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poor." statement- sets forth that Developing Countries are poor and therefore their capital accumulation is insufficient; the solution is the fund entry borrowed from outer countries. Suffering the vicious cycle of *low savings-low investment* due to their low incomes, developing countries resort to external savings in to ensure their development. Fund inflows to these economies take place in the form of i. Direct investments (FDI), and ii. portfolio investments (PI). Portfolio investments (PI) are considered to be the most problematic method for solving the capital shortage of developing countries (DC) (Esen, 1998: 69).

Capital flows reflect the differences between savings and investments between countries (Backus et al., 2013), and capital flows to the DCs are part of the world savings (Fry et al., 1995). As the World Bank (1993: 27) argues, there may be dynamic benefits: "Foreign direct investment is a large and growing source of finance that may help developing countries close the technology gap with high-income countries, upgrade managerial skills, and develop their export markets." Short-term capital movements are associated with different interest rates between countries. In addition, international short-term capital movements are not only a function of different interest rates, but also a function of the growth rate of securities in countries (Grubel 1968: 1309-1310).

There are intense discussions about the capital movements, which are the most important dynamics of crises, and their effects on economies. Capital inflows also provide basic benefits for the DCs in regards with accelerating economic growth and increasing current consumption. Alternatively, capital inflows can be used to increase current consumption, which may reduce savings (Obstfeld, 1998). However, a significant negative result of capital movements for DCs is observed in net foreign trade. As a result of the capital inflow to the countries, the national currency appreciates (or the value of the national currency increases), the economy that becomes dependent on imports as a result of the expensive export and cheap imports (Calvo, 1994) suffer from foreign trade deficit and contributes to the rise in the current account deficit. Coughlin, et al., (2006) stated that, instead of thinking that capital flows are used in financing the current account deficit, it may be good

to think that trade deficits are driven by capital flows. Capital flows strengthen the dollar and cause current account deficit due to the tendency to suppress exports by increasing imports. As it can be seen from Figure 1 presenting the data of Turkey for 1986-2017, the relationship between fluctuations in capital flows and in net foreign trade is remarkable.

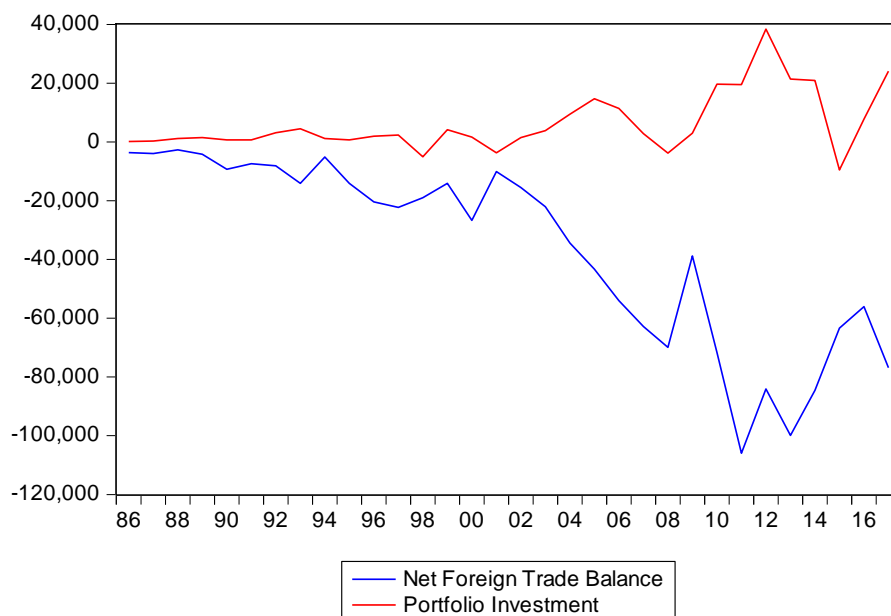


Figure 1. Portfolio of Investments and Foreign Trade Balance, Turkey (1986-2017)

Source: IMF.

The studies carried out examining capital movements show that the flows towards the DCs are short-term and speculative. Likewise in Turkey, where liberalization of capital movements took place in 1989, the capital inflow has predominantly been through portfolio investments and the economy has turned more "fragile" as a result of this short-term capital inflow. The concept of fragility, which started to be used for the first time in 1997 during the Asian Crisis, represents that the financial system is susceptible to crises (Boğa, 2017: 5). It is important that how much of the capital movements used to finance current account deficits are invested or consumed. Turkey was unable to achieve the expected benefits from global capital flows through financial liberalization (Kula, 2003: 141-154).

1. LITERATURE REVIEW

In order to identify the macroeconomic affects of capital movements and their results, different studies have been conducted by using different techniques. Accordingly, in their studies Karahan and İpek (2015) determined that financial capital inflows towards Turkey negatively affected national savings in the long-term. Aslan, Terzi, Siampan (2014) determined a one-way causality relationship from short-term capital movements to GDP. Angmortey and Offin (2014) found that exterior fund had no efficacy on national savings in the short-term and that long-term trade debts had a weak and positive contribution to savings, while direct foreign investments had a strong and positive contribution to savings.

Direkçi and Kaygusuz (2013) determined that short-term capital flows significantly affected economic growth for both short- and long-term. Şengönül and Değirmen (2012) analyzed the effect of external capital and reported that the duration of this effect could vary depending on the channels. In his study Ekinci (2011) concluded that there was a statistically significant and positive relation between growth and foreign investments while there was no significant relation between other fund movements, and total fund movements and growth.

Vergil and Karaca (2010) revealed that portfolio and foreign direct investments positively affected economic growth and short-term capital investments negatively affected economic growth. In his analysis Örnek (2008) determined that direct investments and short-term capital inflows positively affected growth and direct investments in the short- and long-term positively affected domestic savings and short-term capital movements negatively affected domestic savings. Okafornd Tyrovicz (2008) discovered a robust negative relation between exterior debt and local savings rates. Keskin (2008) concluded that short-term fund flows resulted in real valuation of the national currency in the long-term and negatively affected current account balance.

Şimşek (2007) revealed that the economy of Turkey showed growth in the years of short-term fund movements and on the contrary, it showed decrease in the years of increase of short-term fund movements for the years 1992-2005. Barışık and Açıkgöz (2007) concluded that the effect of capital movements on interest rates was stronger than the effect of interest rates on capital movements. Apak, Uçak and Uzunoğlu (2006) found out that hot money inflows had an effect on real exchange rate and gross domestic product (GDP). Ang and Mc Kibbin (2005) determined a significant and bi-directional causality relationship between liberalization of capital movements and the saving, investment, foreign trade and output size.

Berument and Dinçer (2004) revealed that increase in the amount of capital increased money supply and economic growth in the short-term and decreased prices and interest rates. Waheed (2003) explored a long-term significant and positive relation between local savings and external aid. Mohamed (2003) found a robust positive relation between local savings and both international fund and foreign direct investment. İnsel and Sungur (2003) concluded that short-term capital inflows led to an increase in imports due to overvaluation of exchange rates and consequently to a current account deficit.

Durham, J. B. (2003) showed that on the contrary to foreign direct investments, portfolio and other foreign investments had no contribution to the economic growth of the related countries and even had a negative effect. Yentürk and Çimenoğlu (2003) reported that net foreign fundinflows had a positive effect on consumption expenditures and net externalfund inflows were determined to have a three-quarter impact on private consumption expenditures.

Yeldan etc. (2002) found that the relationship between fund movements and real valuation of national currency in the 1992 – 2002 term was positive. Yang (2002) found that direct foreign capital investments had a positive efficacy on the capital formation of all the countries in the sample but that financial capital movements had no clear effect on capital accumulation and growth. Razin (2002) explored that direct foreign capital investments had a more significant efficacy on both capital accumulation and economic growth compared to financial investments. McLean and Shrestha (2002) discovered a positive and significant relation between capital flows and growth for 40 developing countries. In another study of Arslanoğlu (2002) direct capital investments did not lead to growth.

Hansen and Tarp (2001) showed that external fund increased growth ratio and that this was not due to a “good” politics. Çeviş and Kadılar (2001) concluded that, due to the high interest-low exchange rate policy, short-term capital inflows increased, TL was overvalued due to short-term fund flows and current account balance was negatively affected in Turkey in the 1989: 10-1997: 09 period. Razzaque and Ahmed (2000) found a long-term negative relation between national savings and externalfund. Burnside and Dollar (2000) discovered that external aids had a strong and positive efficacy on growth in a fine politicssurroundings. Akçoraoğlu (2000) concluded that short-term capital was not significant in explaining economic growth.

Iqbal and Zahid (1998) stated that economic openness supports economic growth and they found a negative correlation between budget deficit and foreign debt and economic growth. Kaya (1998) determined that capital inflows could explain real exchange rate changes but real exchange rate could not explain capital inflow changes. Bowen (1998) revealed a -significant and negative- relation between indirect fund and growth. Borensztein, De Gregorio, Lee (1998) obtained a positive and significant relation between external direct investments and growth for 69 developing countries. Bhagwati, J. (1998) concluded that capital movements caused economic crises while Rodrik, D. (1997) showed that there was no strong relation between fiscal capital movements and growth as assumed. Snyder (1996) found a negative relation between exteriorfund and private investment.

Khan and Rahim (1993) discovered that externalfund had a negative (but insignificant) effect on savings and emphasized that dissimilar sort of external fund had dissimilar affects. Shabbir and Azhar (1992) found that external private investment had a significant positive efficacy on growth restrained with gross national product growth ratio by excluding total expenditures, but when foreign debts were included, this positive impact became insignificant. Bhalla (1991) found a positive relationship by estimating a simple growth-investment model.

Ahmad (1990) discovered a positive relation between fund flows and imports and a negative correlation between output increase and national savings and foreign capital. In the study of Mosley, Hudson, and Harrell, (1987) no statistically significant relation between gross national product (GNP) growth and aid in terms of % of gross national product was found for 81 developing countries. Mosley, P. et al. (1987) determined that the relation between external fund and growth is not significant and he also found a positive relation between external fund and private investments for 67 countries. Levy (1987) found that most of the expected foreign transfer tended to make investments.

Bowles (1987) explored that in the half of the 20 countries he studied, there were no relations between external aid and local savings. Tapphvimol (1986) found that international aids and other fund flows had a negative and significant effect on domestic savings but direct foreign investments had a positive and insignificant effect. Levy (1984) concluded that foreign aids had a great displacement effect on public savings. Gupta and Islam (1983) found that domestic savings and external capital contributed significantly to growth but the domestic savings was comparatively more substantial than the external capital. Mosley, P. (1980) stated that the relation between capital movements and growth was negative. Gulati (1978) determined that savings and external fund inflows significantly affected the ratio of income growth in 1st Model countries, the development of which was prevented due to the lack of adequate investment funds.

Balassa (1978) found out that capital consisting of labor input, foreign capital inflows and national savings had a positive relationship with production increase. In his study Chen (1977) could not detect any finding to suggest a negative correlation between national savings and capital inflows. Halevi (1976) discovered that there was a significant and positive relation between long-term (total) and private and public inflows; and investments and long-term capital had a positive relation with public consumption and a negative relationship with private consumption. Stoneman (1975) confirmed the positive impacts of external aid and local savings on economic growth but suggested that direct foreign investment stock slowed down growth.

Alamgir (1974) found that external capital had a positive impact on savings and income on a total and sectoral basis but could not find a significant relation between capital inflows and growth. Papanek (1973) discovered that all of the flows had an empirically significant and positive efficacy on growth and confirmed the negative relationship between national saving and foreign aid with his own analysis. Weisskopf (1972) showed that external capital inflows had a negative impact on local savings and about 23% of net external capital inflow was replaced by local savings for 44 underdeveloped countries. Papanek (1972) defended that the adverse correlation between national savings and foreign aids shown in many statistical studies could be illusive and this adverse correlation was more probably to be the conclusion of external determinant affecting both rather than a causal relation. Islam (1972) concluded that the biggest impacts on the national savings were caused by the fiscal policy rather than by the structural reforms and changes in trade conditions and foreign aids. Gupta (1970) found that foreign capital inflows in DCs had almost no effect on local savings.

Griffin (1970) determined a negative relation between external aids and local savings. Chenery and Eckstein (1970) concluded that capital inflows negatively affected the savings in 12 countries as well as not increasing the rate of growth of foreign savings, which are the substitutions for domestic saving. Rahman (1968) confirmed that Haavelmo(1963)'s hypothesis could conclude for DCs that “voluntarily relax domestic savings efforts when more aid is available than otherwise”. Chenery and Strout (1966) determined that foreign capital positively affected domestic savings and increased capital formation and economic

growth.

As can be seen above, empirical studies testing the macroeconomic effects of capital movements focused predominantly on growth, and this was followed by studies on gross domestic product (GDP), savings, investment, consumption, real exchange rate, interest rates, value of national currency, their effect on industrial production through consumption and private investment, money supply and rarely on current account deficit. In the literature review, no studies on the effect of capital flows on net foreign trade deficit were found. In the light of this, following this study and based on the example of Turkey, whether net capital flows have an effect on net foreign trade deficit will be analyzed.

2. DATA

To investigate the relationship between portfolio investment and net foreign trade, Turkey's portfolio investments and net foreign trade data for the period of 1986-2017 from the International Monetary Fund (IMF) are used.

3. METHODOLOGY AND EMPIRICAL RESULTS

In this section, the relationship between portfolio investments and net foreign trade data have been tested empirically.

3.1. Unit Root Tests

The obligatory first footstep when making these analyses is to issue the variables to unit root tests. The degree to which the time series are stationary can be determined by unit root tests. Table 1 shows the Augmented Dickey-Fuller (ADF) and Philips-Perron (PP) test results.

Looking at the ADF test results, the foreign trade deficit (TD) series is found to be I_1 , and portfolio investments (PI) series I_0 . This shows that when the first difference of the foreign trade series is taken, it becomes stationary and the portfolio investments variable is stationary in level degree. PP test also provides similar results with the ADF test. Both tests' common result were that Foreign Trade Balance (FTB) series is I_1 , and PI series is I_0 is. Accordingly, while foreign trade series are affected by the previous values, portfolio investments are not.

Table 1: ADF ve PP Unit Root Test Results

Variables	TD	Δ TD	PI
ADF	-2.9612 (0.1586)	-6.3107* (0.0000)	-5.0465* (0.0017)
PP	-2.9813 (0.1532)	-6.5227* (0.0000)	-3.5661** (0.0497)

Note: * and ** represents 1 and 5% significance level, respectively. Values in parentheses are the probability values. Maximum lag length is taken as five.

3.2. Model Specification

3.2.1. ARDL (Autoregressive Distributed Lag) Model

Different orders of stationarity among the series set forth that cointegration approximations such as Engle-Granger and Johansen cannot be used to test the long-term correlation between these variables. Consequently, the cointegration correlation has been examined with ARDL bound testing that allows to work with different orders of

stationarity.

The null hypothesis tested by the ARDL Bound Test is "There is no cointegration correlation between variables", thus, rejecting this hypothesis shows that such a cointegration correlation exists. If the F statistic from the test is greater than the critical upper bound, H_0 is rejected. When F statistic is less than the critical lower bound, H_0 is accepted. And when F statistic is between the upper and lower critical bounds, other cointegration tests should be considered as there is no sufficient data to reject or fail to reject the H_0 hypothesis (Pesaran, Shin, Smith, 2001).

Data in the Table 2 shows that, there is a cointegration correlation between the variables as the calculated F statistic value (10.93652) is greater than the upper bound (6.73) at 1% significance level. In this case, there is a long-term correlation between FTB and Private Investment (PI). The model has been analyzed with the 1st and 2nd order LM autocorrelation test and with Breusch-Pagan Godfrey (1979: 1289) test to address heteroscedasticity. The results obtained indicate that the model does not have heteroscedasticity or variance.

Table 2. ARDL Bound Test Results

Predicted Equality =DT=f(PI)		
F Statistic	10.93652	
Significance level	Critical Value	
	<i>Lower Limit</i>	<i>Upper Limit</i>
%1	6.1	6.73
%5	4.68	5.15
%10	4.05	4.49
Diagnostic tests	Statistics	
R2	0.565140	
Adjusted R2	0.498238	
F Statistics	8.447330(0.000166)	
Breusch-Godfrey	4.475985 (0.3454)	
ARCH LM	0.998448(0.3177)	

Note. The values in parentheses are the probabilities.

3.2.2. Error Correction Model and Long Term Coefficients

According to the results contained in Table 3, the error correction coefficient (CointEq (-1)) is negative and significant. A long-term correlation between series can be considered to be in existence in the case of a negative and significant error correction coefficient. It is deduced that deviations from balance are decreased by approximately 80% after a period of time. When looked at the long term coefficients, just as the coefficient of portfolio investment variable is negative and statistically significant, trend variable coefficient is statistically significant as well. According to the results of the analysis; a one-unit increase in portfolio investments led to a deterioration in the net foreign trade balance by 1.7 units (Table 3).

Having identified the the long-term correlation between the variables, Granger Causality Test over ECM Model has been applied to examine the short-term correlation. According to Granger (1988) if there is co-integration between variables, at least a one-way causality should exist between them. In a situation like this, analysis of causality is made with error correction model (ECM). The model is developed for this purpose and it is used for distinguishing long-term and short-term dynamics of variables (Aktaş, 2009). Error

correction model states that (Best, 2008);

- ✓ Effects of X on Y in the short term,
- ✓ Effects of X on Y in the long term,
- ✓ Y will rapidly return to balance after a deflection.

The structure of error correction model used in this study is as follows,

$$\Delta Y_t = \alpha_1 + \sum_{i=1}^m \beta_{1i} \Delta B_{t-i} + \sum_{i=1}^n \gamma_{1i} \Delta Y_{t-i} + \sum_{i=1}^r \delta_{1i} ECM_{r,t-i} + u_t$$

$$\Delta B_t = \alpha_2 + \sum_{i=1}^m \beta_{2i} \Delta B_{t-i} + \sum_{i=1}^n \gamma_{2i} \Delta Y_{t-i} + \sum_{i=1}^r \delta_{2i} ECM_{r,t-i} + u_t$$

As can be seen from the Table 3, the null hypothesis H_0 is rejected since $prob < 0.05$ in the short-term and therefore alternative hypothesis is accepted. That is, portfolio investments are a “Granger – Cause” for the net foreign trade deficit (Table 4).

Table 3. Error Correction Model and Long-term Coefficients

ECM				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PI	-0.533187	0.192877	-2.764393	0.0103
C	2879.991	1969.431244	1.462347	0.1556
Cointeq(-1)	-0.801938	0.134911	-5.944189	0.0000
Long Term Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PI	-1.700355	0.350423	-4.852290	0.0000
@TREND	-2105.047	324.042197	-6.496213	0.0000

Dependent Variable: TD

Table 4. Results of the Granger Causality Test Over ECM

Hypothesis	Prob.	Direction of Causality
TD does not (Granger) causes PI	0.3107	
PI does not (Granger) causes TD	0.0052	PI → TD

Conclusions

With the globalization, the structure of the international financial system has changed. In the 1990s, the nature of capital flows also changed. Foreign direct investment (FDI) and foreign private investment (FPI) have started to replace bank loans. With the removal of the obstacles in front of them, short-term capital flows, which are in search of high profits, have moved to emerging markets. However, these intense capital inflows towards developing countries (DCs) have also brought about some problems; This was followed by the crises of Mexican 1994, Asian 1997, Russian 1998 due to sudden reversal of the capital. This crisis experience has led to the questioning of capital flows and macro-economic effects. These experiences and research suggest that DCs should avoid short-term portfolio flows that are dangerous due to sudden stops and sudden reversals and should focus on low volatility FDI flows.

However, the effect of capital flows on net foreign trade deficit has been neglected in

the studies conducted. It is important to identify the correlation between the capital flow and the trade deficit, one of the factors in high current account deficit in Developing Countries, which have to import in order to produce and export. This study empirically identifies this correlation; portfolio investments are among the causes of net foreign trade deficit both in the long and short term. The results of the analysis shows that an increase of one unit in the portfolio investment leads to a disturbance of 1.70 unit in the foreign trade deficit. Net trade deficit, in a sense, is determined by external savings.

The results are important for policy makers and decision makers. Governments should be selective in the types of capital inflows they want to attract and integrate their policies to foreign capital into national development strategies. In addition, it is necessary to manage the capital that is going to DCs effectively and efficiently. Governments should reserve the right to prevent or control, especially during short-term flows, during capital fluctuations or severe crises.

References

- Ahmad, S. (1990). *Foreign Capital Inflow and Economic Growth: A Two Gap model for the Bangladesh Economy*. The Bangladesh Development Studies. XVIII. 55-79.
- Akçoraoğlu, A. (2000). *International capital movements, external imbalances and economic growth: the case of Turkey*. Yapı Kredi Economic Review. 11(2). 21-36.
- Aktaş, C. (2009). *Türkiye'nin İhracat, İthalat Ve Ekonomik Büyüme Arasındaki Nedensellik Analizi*. Kocaeli Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 2 (18): 35-47.
- Alamgir, M. (1974). *Foreign Capital Inflow, Saving and Economic Growth-A Case Study of Bangladesh*. The Bangladesh Economic Review. 2 (2). 577-598.
- Ang, J.B., Mc. & Kibbin, W.J. (2005). *Financial Liberalization, Financial Sector Development and Growth: Evidence from Malaysia*. Brookings Discussion Papers in International Economics.168. 1-29.
- Angmortey, B.N. & Tandah-Offin, P. (2014). *Does Foreign Capital Crowd-Out Domestic Saving in Developing Countries? An Empirical Investigation of Ghana*. International Journal of Economics and Finance. 6 (8). 161-172.
- Apak, S., Uçak, A. & Uzunoğlu, S. (2006). *Finansal Serbestleşmenin Ekonomik Büyüme Üzerine Etkisi: Türkiye Örneği*. TEK Uluslararası Ekonomi Konferansı.
- Arslanoğlu, E. (2002). *The Structure and the Impact of Foreign Direct Investment in Turkey*. Marmara Üniversitesi İ.İ.B.F. Dergisi. XVII. 1. 31-51.
- Aslan, N., Terzi, N. & Siampan, E. (2014). *Türkiye'de Kısa Vadeli Sermaye Hareketlerinin Ekonomik Büyüme ve Reel Döviz Kuru ile İlişkisi*. <http://dergipark.gov.tr/download/article-file/3988>.
- Backus, D., Cooley, T. & Henriksen, E. (2013, September). *Demography and Low*

- Frequency Capital Flows*. NBER Working Paper 19465. doi:<http://www.nber.org/papers/w19465.pdf>.
- Balassa, B. (1978). *Exports and Economic Growth: Further Evidence*. Journal of Development Economics. 5 (2). 181-89.
- Barışık, S. & Açıköz, E. (2007). *Türkiye’de Uluslararası Sermaye Hareketleri Faiz İlişkisi: 1992–2005 Dönemi VAR Analizi*. TİSK Akademi Dergisi, 2(3).
- Berument, H. & Dincer, N. N. (2004). *Do Capital Flows Improve Macroeconomic Performance in Emerging Markets?: the Turkish Experience*. Emerging Markets Finance and Trade. 40 (4). 20-32.
- Best, R. (2008). *An Introduction to Error Correction Models*. Oxford Spring School for Quantative Methods in Social Research.
- Bhagwati, J. (1998). *The Capital Myth: The Difference Between Trade in Widgets and Dollars*. Foreign Affairs. 77. 7–12.
- Bhalla, S. S. (1991). *Economic Policies, Foreign Aid and Economic Development in Sri Lanka*. in Lele and Nabi. 95-124.
- Boğa, S. (2017, Jan.). Finansal Kırılganlıklar ve Uluslararası Sermaye Hareketleri: Gelişmekte Olan Ülkeler Üzerine Bir Analiz. *Finansal Araştırmalar ve Çalışmalar Dergisi*. 9(16).1-17.
- Borensztein, E., De Gregorio, J. & Lee, J.W. (1998). *How Does Foreign Direct Investment Affect Economic Growth*. Journal International Economics. 45. 115–135.
- Bowen, J. L. (1998). *Foreign Aid and Economic Growth: A Theoretical and Empirical Investigation*. Aldershot: Asghate Publishing Ltd.
- Bowles, P. (1987). *Foreign Aid and Domestic Savings in Less Developed Countries: Some Tests for Causality*. World Development. 15 (6). 789-796.
- Breusch, T.S. & Pagan, A.R. (1979). *A Simple Test for Heteroscedasticity and Random Coefficient Variation*. Econometrica. 47. 1287-1294.
- Burnside, C. & Dollar, D. (2000, September). *Aid, Policies, and Growth*. American Economic Review. 90 (4). 847-868.
- Calvo, G. (1994). *The Management of Capital Flow: Domestic Policy and International Cooperation*. International Monetary and Financial Issues for the 1990s. UNCTAD, IV.
- Chen, Edward K. Y. (1977). *Domestic Saving and Capital Inflow in Some Asian Countries: A Time Series Study*. Asian Survey. 17 (7). 679-687.
- Chenery, H.B. & Eckstein, P. (1970). *Development Alternatives for Latin America*.

Journal of Political Economy. 78. 966-1006.

Chenery, H.B. & Strout, A.M. (1966). *Foreign Assistance and Economic Development.* A.I.D. Discussion Paper. 7. 1-129.

Coughlin, C.C., Pakko, M.R. & Poole, W. (2006, Apr.). *How Dangerous Is The U.S. Current Account Deficit?. The Regional Economist.* doi:https://research.stlouisfed.org/publications/regional/06/04/account_deficit.pdf, p.6.

Çeviş, İ. & Kadilar, C. (2001). *The Analysis of the Short-term Capital Movements by Using the VAR Model: The Case of Turkey.* The Pakistan Development Review. 187-201.

Direkçi, T. B. & Kaygusuz, S. (2013). Kısa Vadeli Sermaye Hareketlerinin Makroekonomik Değişkenler İle Olan Etkileşimi: Türkiye Örneği. *Akademik Araştırmalar ve Çalışmalar Dergisi (AKAD).* 5(9).

Durham, J. B. (2003). *Foreign Portfolio Investment, Foreign Bank Lending, and Economic Growth.* FRB International Finance Discussion Paper. 757. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=382063

Ekinci, A. (2011). *Sermaye Hareketleri Büyüme İlişkisi: OECD Ülkeleri Örneği.* In Anadolu International Conference in Economics II, Eskişehir.

Esen, O. (1998). *Finansal Küreselleşme Ortamında Gelişmekte Olan Ülkelere Yönelik Portföy Yatırımları.* Ekonomik Yaklaşım. 9(30). 59-70.

Fry, M., Clawsswns, S.A., Burridge, P. & Blanchet, M.-C. (1995). *Foreign Direct Investment, Other Capital Flows and Current Account Deficits: What Causes What?.* World Bank Policy Research Working Paper No. 1527.

Granger, Clive W. J. (1988). *Some Recent Developments in a Concept of Casuality.* Journal of Econometrics, 39 (1-2): 199-211.

Griffin, K. (1970). *Foreign Capital, Domestic Savings and Economic Development.* Bulletin of the Oxford University Institute for Economics and Statistics. 32 (2). 99-112.

Grubel, H.G. (1968, Dec.). *Internationally Diversified Portfolios: Welfare Gains and Capital Flows.* The American Economic Review. 58(5). 1299-1314.

Gulati U. C. (1978). *Effects of Capital imports on Savings and Growth in Less Developed countries.* Economic Enquiry. 16 (4). 563-569.

Gupta, K. L. (1970, May). *Foreign Capital and Domestic Savings: A Test of Haavelmo's Hypothesis with Cross-Country Data: A Comment.* Review of Economics and Statistics. 52. 214-216.

Gupta, K. L. & Islam, M.A. (1983). *Foreign Capital, Savings and Growth: An*

- International Cross Section Study*. Dordrecht: D. Reidel Publishing.
- Haavelmo, T. (1963). *Comment on Leontief Wassily, The Rates of Long-Run Economic Growth and Capital Transfer from Developed to Underdeveloped Areas*. Pontificiae Academiae Scientiarum Scripta Varia (Amsterdam: North-Holland Publishing Company, 1965).
- Halevi, N. (1976). *The Effects on Investment and Consumption of Import Surpluses of Developing Countries*. Economic Journal. 86 (344). 853-858.
- Hansen, H. & Tarp, F. (2001). *Aid, and Growth Regressions*. Journal of Development Economics. 64 (2). 547-570.
- İnsel, A. & Sungur, N. (2003). *Sermaye Akımlarının Temel Makroekonomik Göstergeler Üzerindeki Etkileri: Türkiye Örneği-1989: III-1999: IV*. Discussion Paper. Turkish Economic Association. 2003 (8).
- Iqbal, Z. & Zahid, G. M. (1998). *Macroeconomic Determinants of Economic Growth in Pakistan*. The Pakistan Development Review. 37 (2). 125-148.
- Islam, N. (1972). *Foreign Assistance and Economic Development: The Case of Pakistan*. Economic Journal. 82 (325). 502-530.
- Karahan, Ö. & İpek, E. (2015). *Türkiye'ye Yönelik Finansal Sermaye Akımlarının Tasarruf ve Yatırım Üzerine Etkisi*. YDÜ Sosyal Bilimler Dergisi. VII (2). 181-206.
- Kaya, Y. T. (1998). *Sermaye Hareketleri ve Kısa Vadeli Sermaye Hareketlerinin Modellenmesi: Türkiye Örneği*. Devlet Planlama Teşkilatı Yayınları. 2487. 33-43.
- Keskin, N. (2008). *Finansal Serbestleşme Sürecinde Uluslararası Sermaye Hareketleri ve Makroekonomik Etkileri: Türkiye Örneği*. Yayınlanmamış Doktora Tezi. DEÜ Sosyal Bilimler Enstitüsü.
- Khan, N. Z. & Rahim, E. (1993). *Foreign Aid, Domestic Saving and Economic Growth (Pakistan 1960-1988)*. The Pakistan Development Review. 32 (4). 1157-1167.
- Kula, F. (2003). *Uluslararası Sermaye Hareketlerinin Etkinliği: Türkiye Üzerine Gözlemler*. C.Ü. İktisadi ve İdari Bilimler Dergisi. 4 (2). 141-154.
- Levy, V. (1984). *The Savings Gap and the Productivity of Foreign Aid to a Developing Economy: Egypt*. Journal of Developing Areas. 19 (1). 21-34.
- Levy, V. (1987). *Does Concessionary Aid Lead to Higher Investment Rates in Low-Income Countries?*. The Review of Economics and Statistics. 69 (1). 152-156.
- McLean, B. & Shrestha, S. (2002). *International Financial Liberalisation and Economic Growth*. Sydney, Australia: Reserve Bank of Australia.

- Mohamed, Mohamed Abdel-Wahed (2003). *The Impact of Foreign Capital Inflow on Savings, Investment and Economic Growth Rate in Egypt: An Econometric Analysis*. Scientific Journal of King Faisal University. 4 (1). 279-308.
- Mosley, P. (1980). *Aid, Savings and Growth Revisited*. Bulletin of Oxford Institute of Economics and Statistics. 42 (2). 79-95.
- Mosley P. et al. (1987). *Overseas Aid: Its Defence and Reforms*. Brighton: Brighton: Harvester Press.
- Mosley, P., Hudson J. & Harrell, S. (1987). *Aid, the Public Sector and the Market in Less Developed Countries*. Economic Journal. 97 (387). 616-641.
- Nurkse, R. (1952). *Some International Aspects of the Problem of Economic Development*. The American Economic Review. 42(2). Papers and Proceedings of the Sixty-fourth Annual Meeting of the American Economic Association. 571-583.
- Obstfeld, M. (1998). *The Global Capital Market: Benefactor or Menace?*. NBER Working Paper 6559. doi: <http://www.nber.org/papers/w6559.pdf>
- Okafor, L. E. & Tyrowicz, J. (2008). *Foreign Debt and Domestic Savings in Developing Countries*. University of Warsaw, Faculty of Economic Science Working Paper. 06. 1-25.
- Örnek, İ. (2008). *Yabancı Sermaye Akımlarının Yurtiçi Tasarruf ve Ekonomik Büyüme Üzerine Etkisi: Türkiye Örneği*. AÜ SBF Dergisi. 63(2). 199-207.
- Papanek, G. F. (1972). *The Effects of Aid and Other Resource Transfers on Savings and Growth in Less Developed Countries*. Economic Journal. 82 (327) 934-950.
- Papanek, G. (1973). *Aid, Foreign Private Investment, Savings and Growth in Less Developed Countries*. Journal of Political Economy. 81 (1). Foreign Capital and Economic Growth in Developing Countries. 47. 120-30.
- Pesaran, M. H., Shin, Y., & Smith, R.J. (2001, June). *Bounds Testing Approaches to the Analysis of Level Relationships*. <https://doi.org/10.1002/jae.616>.
- Rahman, M. A. (1968). *Foreign Capital and Domestic Savings: A Test of Haavelmo's Hypothesis with Cross Country Data*. Review of Economics and Statistics. 5(1). 137-138.
- Razin, A. (2002). *FDI Contribution to Capital Flows and Investment in Capacity*. National Bureau of Economic Research. Working Paper. 9204.
- Razzaque, A. & Ahmed, N. (2000). *A Re-examination of Domestic Savings, Foreign Aid, Relationship in the Context of Bangladesh*. The Bangladesh Development Studies. 26 (4). 1-37.

- Rodrik, D. (1997). *Globalization, Social Conflict and Economic Growth*. United Nation Conference on Trade and Development. <https://unctad.org/en/docs/prebisch8th.en.pdf>
- Shabbir T. & Azhar, M. (1992). *The Effects of Foreign Private Investment on Economic Growth in Pakistan*. Pakistan Development Review. 31 (4). 831-841.
- Snyder, D. (1996). *Foreign Aid and Private Investment in Developing Countries*. Journal of International Development. 8 (6). 735-745.
- Stoneman C. (1975). *Foreign Capital and Economic Growth*. World Development. 3 (1). 11-26.
- Şengönül, A. & Değirmen, S. (2012). *Kısa Süreli Sermaye Hareketlerinin Türkiye'nin Ekonomik Büyümesine Etkisi: Sermaye Piyasası ve Bankacılık Kanalı*. EconStor Discussion Paper. 2012 (73).
- Şimşek, A. R. (2007). *Kısa Vadeli Sermaye Hareketleri ve Türkiye Ekonomisine Etkileri*. Yayınlanmamış Yüksek Lisans Tezi. Balıkesir Üniversitesi SBE. Balıkesir.
- Tapphavimol, K. (1986). *The Impact of Foreign Capital Inflow on Domestic Saving in Thailand 1970-1984*. ETD Collection for AUC Robert W. Woodruff Library. 1830. 1-40.
- Vergil, H. & Karaca, C. (2010). *Gelismekte Olan Ülkelere Yönelik Uluslararası Sermaye Hareketlerinin Ekonomik Büyüme Üzerindeki Etkisi: Panel Veri Analizi/1/The Effects of International Capital Movements through Developing Countries on Economic Growth: The Panel Data Analysis*. Ege Akademik Bakis. 10(4). 1207.
- Waheed, A. (2003). *Risk Analysis on External Indebtedness of Pakistan*. Journal of Economic Cooperation among Islamic Countries. 24 (2). 113-135.
- Weisskopf, T. (1972). *Impact of Foreign Capital Inflow on Domestic Savings in Underdeveloped Countries*. Journal of International Economics. 2 (1). 25-38.
- World Bank. (1993). *Global Economic Prospects and the Developing Countries*. doi: <http://documents.worldbank.org/curated/en/469851468781532185/pdf/multi0page.pdf>
- Yang, J. (2002). *Direct and Financial Foreign Investment: How Do They Differ in the Benefits to the Developing Countries*. The George Washington University. Global Management Research Working Paper.02 (10).
- Yeldan, E., Balkan, E. & Biçer, F. G. (2002). *Patterns of Financial Capital Flows and Accumulation in the post-1990 Turkish Economy*. https://www.researchgate.net/publication/299004614_Patterns_of_financial_capital_flows_and_accumulation_in_the_post-1990_Turkish_economy
- Yentürk, N. & Çimenoğlu, A. (2003). *Impacts of International Capital Inflows on the Turkish Economy*. ERCMETU VI. International Conference in Economics Symposium Proceedings.