

A Different Perspective for Current Account Deficit Issue on Some OECD Member Countries: A Binary Panel Logit Approach

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Received: July 27, 2015

Accepted: August 21, 2015

Online Published: August 24, 2015

doi:10.5430/rwe.v6n3p14

URL: <http://dx.doi.org/10.5430/rwe.v6n3p14>

Abstract

In this paper, we aim to analyze the possible factors, which could stimulate the probability of a financial crisis by testing the relationship between current account deficit and different macroeconomic variables by using panel logit model. For this purpose, we tried to investigate the impact of current account deficit on several macroeconomic variables such as real GDP, unemployment rate, consumer price index, rate of increase in exports, rate of increase in imports and public expenditures. In this context, we particularly selected the time period of 2005-2014 in order to concentrate on the pre-crisis and post-crisis period with the aim of investigating the potential relationship between the current account imbalances and financial crisis. To implement our objective, we examine the behaviors of macroeconomic variables in 16 developed and developing OECD member countries to analyze whether the crisis shares a common macroeconomic background. Our empirical results indicate that there is a significant positive relationship between the current account deficit and public expenditure. On the other hand, significant negative relationships have been obtained between consumer price index (CPI), unemployment rate, public expenditure and the current account deficit.

Keywords: binary panel logit, current account deficit, financial crisis, pre-crisis period, fixed effect panel logit

1. Introduction

The world economy encountered numerous financial crises since the beginning of 1990s and current account deficit has become a significant problem for many countries as a result of globalization of the world economy. The process of globalization has increased international trade and capital mobility leading to larger current account deficits for many countries. The trend toward larger current account deficit can also be observed among some of the Organization for Economic Cooperation and Development (OECD) member countries. Additionally, many emerging countries have encountered the problem of current account deficit in the last few decades.

Before the recent financial crisis, many countries experienced large and increasing current account imbalances. Although there was not much evidence that big economic crises could be identified by abnormal current account deficits, some analysts suggested that large imbalances could be sustained only for a foreseeable period of time. The numbers support this view as the US current account deficit fell from 6% of US GDP in 2005 to 2.8% in 2012 (Aizenman et al., 2013). The current account deficits of other crisis-hit developed and developing countries also declined as they cut back on imports.

Recently, the relationship between financial crisis and current account deficit has attracted considerable interest as a research subject from academics, policymakers and the media. Many studies try to examine whether there are important correlations between current account deficits and macroeconomic variables before the financial crises. Results obviously indicate that a radical change occurs in the structure of current account deficits of many countries after the crises. However, it is also vital to identify the relationship between the major economic variables and current account deficits prior to crises to take preventive action. As Coughlin et al. (2006) underline, the question is not whether the current account deficits of countries will fall in the future but whether this inevitable adjustment will have disruptive consequences on the world economic growth and stability. Undoubtedly, the recent financial crisis had devastating economic and social consequences in the form of bankruptcy of large financial institutions, substantial

losses in the value of company shares and high increases in unemployment rates. These developments have generated renewed interest among the researchers, policy makers and economists for developing early warning systems (EWS). It is obvious that there is an urgent need to develop an EWS, which would help identifying fiscal and financial vulnerabilities and assist researchers and policymakers in monitoring whether a country may be falling into a potential crisis.

Although no two financial crises are the same and there is no agreement on which macroeconomic variables should be included into the existing models, the recent crisis has deeply influenced the views related to the interaction between macroeconomic variables and the financial crisis. According to Eichengreen et al. (1994), large movements in exchange rates, interest rates and international reserves are all indicators of a crisis and they suggest comparison of the behavior of a variety of macroeconomic variables during and after crisis. Furthermore, Kaminsky et al. (1998) state that monitoring of several indicators may tend to indicate unusual behavior that may provide identification of a financial crisis prior to its outbreak.

Our specific objective in this study is to analyze the possible factors, which could stimulate the probability of a financial crisis. For this purpose, we tried to investigate the impact of current account deficit on several macroeconomic variables such as real GDP, unemployment rate, consumer price index, rate of increase in exports, rate of increase in imports and public expenditures. In this context, we particularly selected the time period of 2005-2014 in order to concentrate on the pre-crisis and post-crisis period with the aim of investigating the potential relationship between current account imbalances and financial crisis. To implement our objective, we examine the behaviors of macroeconomic variables in 16 developed and developing OECD member countries to analyze whether the crisis shares a common macroeconomic background.

The structure of this paper is as follows. Section 1 is the introduction part. The second section reviews the theoretical framework and main empirical works for developing early warning models based on two major approaches: the parametric (regression) approach and the non-parametric (signals) approach. In this section, we will give special emphasis to the parametric approach, mainly panel logit models to investigate the relationships between different variables. The empirical methodology used in the study, estimation of the panel logit model and the obtained results with their interpretations are presented in the third section. The final section is the conclusion part in which prospects for further research are also considered.

2. Literature Review

In this study, we aimed to analyze the current account deficit problem by using the panel logit approach. Our study contributes to the major literature as there are not many studies, which investigate the current account deficit problems of countries by employing the method of panel logit. In our study, we utilized the variable of 1 if the country has current account deficit and 0 otherwise with the aim of comparing the current account deficit problems of different developed and developing countries. The research of the current account deficit is important due to the reason that it may provide an important step on the way to predict financial crises. The analysis of current account deficit is particularly important for the developing countries as it may constitute one of the significant reasons of the financial crises.

The analysis of the existing literature indicates that there are few studies that try to estimate the problem of current account deficit by using the panel logit approach. This method can be applied to different countries individually or it can be used to compare different countries. New studies can be conducted to make a major contribution to the literature of EWS by analyzing the current account deficit problem with the method of panel logit which will provide an in-depth investigation of the relationship between the current account deficit and other variables. In this way, investigation of the impact of current account deficit on the selected countries may enrich early warning literature.

A variety of methodologies have been proposed to detect risks to help identify different crisis (currency, banking, fiscal, monetary etc.) in the literature. However, the two most frequently used approaches are the non-parametric (signals) approach and the parametric (regression) approach based on probit or logit models. As Berti et al. (2012) state, the parametric or regression approach is composed of panel models analyzing the effects of independent variables on the probability of crisis. According to this method, the dependent variable may be a binary variable, which assumes value of 1 if a crisis outbreaks and 0 otherwise. A non-parametric (signals) approach uses a completely different method based on signals instead of summarizing the probability of a crisis in one number between 0 and 1. A variable can be considered sending a warning signal if it goes further than a certain threshold level (Bucevska, 2011). The signals approach was pioneered by Kaminsky, Lizondo and Reinhart (1998). Other studies conducted based on this approach belong to Ottels, Lambregts and Poelhekke (2005) and Borio and Lowe (2002).

Plenty of studies have been produced using the parametric (regression) approach with regard to different types of crises by using different macroeconomic variables. Eichengreen et al. (1996) were among the first to use a probit model for the prediction of currency crisis. They concluded that speculative attacks on fixed exchange rates have significant impacts on the occurrence of currency crises.

Sachs et al. (1996) tried to determine those macroeconomic variables that can help to identify, which countries were more sensitive to contagion effects, following the Mexican crisis in 1994. Their study particularly contributed to narrow the list of useful indicators that turned out to be meaningful in the prediction of financial crisis in the studies using logit (or probit) models.

Demirguc-Kunt and Detragiache (1998) found that a banking crisis is mostly related to low economic growth, high real interest rate and high inflation. Berg and Pattillo (1999) tried to test the non-parametric model and concluded that parametric (regression) approach has a superior performance in terms of better forecasts as compared to parametric approach.

Rossi (1999) determined that slow economic growth and rapid bank credit expansion could be the reasons of a banking crisis. While Rossi (1999) states that a currency crisis might be highly related to a change in terms of trade, economic growth and banking distress, Kumar et al. (2002) employ a logit model with lagged financial and macroeconomic variables to forecast currency crises.

Cartapanis et al. (2002) reveal that both overvaluation of currency and contagion effects were actually the main indicators of the Asian crisis. Manasse, Roubini and Schimmelpfennig (2003) tried to estimate sovereign debt crisis by using a set of different macroeconomic variables such as current account balance to refer to solvency and liquidity factors, and real GDP growth rate and inflation to refer to macroeconomic conditions.

Lestano et al. (2003) conducted panel logit approach for six Asian countries over the period of 1970 and 2001 with the goal of analyzing the EWS to predict the financial crisis. They state that they obtained different results for the monetary, banking and debt crisis.

Gerni et al. (2005) tried to investigate the financial crises in Turkey by using monthly data for the period of 1990 and 2004 by employing panel logit method. According to their empirical findings, the crisis of 1994 and 2001 experienced in Turkey reveal similar, as well as different results for the macroeconomic variables used in their study. They found that interest rates and industrial production index give meaningful signals three months before the crisis indicating that the course of economy actually begins to deteriorate.

Kahraman et al. (2009) applied the panel regression method to realize their goal of researching the economic crisis for 15 developing countries with the data, which belong to the period of 1987-2007. Based on their results, they observe that current account deficit and reserve ratios could be pioneering indicators for the prediction of crisis.

Bucevska (2011) tried to investigate what type of different indicators can be assigned to the outbreak of the recent financial crises in three EU candidate countries (Croatia, Macedonia and Turkey) in the period of 2005 and 2014 by using binomial logit model. Bucevska (2011) found that the top three early warning indicators of a financial crisis for these three EU candidate countries are gross external debt relative to export, the domestic loans and the bank deposits in relation to gross domestic product (GDP). Additionally, Bucevska (2011) observed that the other four highly significant determinants of financial crisis in those countries are the overvaluation of the real effective exchange rate, the level of the current account deficit, the fiscal deficit and the capital flight.

Ganioglu (2013) tried to compare the reflections of financial crisis on the developed and developing countries by using panel logit estimation technique, which includes 24 developed and 26 developing countries. The period of study covers the years between 1970 and 2008. With this study, Ganioglu (2013) aimed to analyze which macroeconomic variables might increase the probability of financial crisis. According to her findings, current account deficit and credit expansion together with monetary expansion stimulate the probability of financial crisis in both advanced and developing countries.

Comelli (2013) used three parametric and non-parametric EWS to compare their performances for predicting currency crisis in emerging market economies. In the parametric EWS, Comelli (2013) found that real GDP growth, the ratio between foreign exchange reserves and short-term external debt, the growth rate in the stock of foreign exchange reserves, and the current account balance are all statistically significant and negatively related with the probability of a crisis. Croutori (2014) indicated that inflation rate and current account deficit increased depending on some historical fluctuations, once the global financial crisis broke out in Romania after 2008.

3. Model Specification, Methodology and Findings

We try to estimate the probability of a current account deficit using a binary panel logit model. This technique draws on the approach taken by Demirguc-Kunt and Detragiache (1998). The dependent variable takes the value of 1 in the case of a crisis, or 0 if there is no crisis in that period. The probability that a crisis appears at a particular time in a particular country is assumed to be a function of n country specific (i) explanatory variables $X(i, t)$ from 2005 to 2009 (t).

We use a panel logit regression model to identify the factors, which determine the adoption of current account policy by 16 OECD member countries, which are composed of both developed and emerging market economies. We work with a panel data set, which contains annual observations for each country over the period 2005-2014. Our sample countries include Germany, Austria, Denmark Belgium Finland France Netherland, UK, Ireland, Spain, Sweden, Italy, Luxembourg, Portugal, Greece and Turkey. Our empirical data were obtained from the International Financial Statistics Database of International Monetary Fund (IMF), and the World Development Indicators Database of World Bank (WB).

The purpose of this study is to constitute the leading indicators based on the probability of outbreak of financial crisis and the different macroeconomic variables which may increase the current account deficit. In our logit model we adopt the approach developed by Lestano and Kuper (2003) and Demirgüç-Kunt and Detragiache (1998). It analyzes the relationship between current account deficit and some other macroeconomic variables that may have a significant impact on the occurrence of current account deficit, which in turn may increase the probability of one or more types of financial crisis simultaneously.

We prefer to use a panel logit regression approach mainly for three reasons. First, we do not want to identify the factors, which determine current account deficit. Rather, we will employ a set of explanatory variables, which have been generally accepted as important determinants of current account deficit. We will then investigate how changes in those explanatory variables may effect the probability of current account deficit, which we presume to be a binary choice variable. Second, our panel logit model will help us to interpret the regression coefficients more closely with regard to the changes in the probability of current account deficit. Third, a panel data structure will allow us to obtain more precise results, which will also allow us to focus on critical issues. We use fixed-effect panel logit estimation technique for the analysis based upon a Hausman test, which includes fixed country effects in the model to consider the possibility that the dependent variable may evolve independently from the the explanatory variables in the regression equation. We conduct the analysis by using the SAS programme. In our study, we decided to employ the probability model over the “signals” approach due to the following advantages of the logit model (Berg and Patillo, 1998):

- It permits taking into account the relationships between different variables and determining the statistical significance between those variables.
- It enables introduction of various functional forms between the binomial dependent variable and the set of different explanatory variables.
- It pays attention to the correlation between regressors and combines the information from various macroeconomic indicators into a single composite indicator of current account, which may cause financial crisis.

We estimate the following logit specification defined as;

$$\Pr(CA_{it} | X_{it-1}) = \begin{cases} p_{it} & \text{if } CA_{it} = 1 \\ 1 - p_{it} & \text{if } CA_{it} = 0 \end{cases} \quad (1)$$

$$\log \text{it}(E[CA_{it} | X_{it-1}]) = \log \text{it}(p_{it}) = \ln(p_{it} / (1 - p_{it})) = \beta X_{it-1}$$

Here t denotes time, and i represents country. Our dependent variable, *current account* is a binary variable, which is used as 1 denoting the outbreak of current account and 0 otherwise. X_{it} refers to the explanatory macroeconomic variables. It is important to forecast the precise timing of a current account deficit or timing of its occurrence in a determined time horizon. Our objective is to forecast the eventuating of current account deficit that may have a significant impact on the outbreak of the financial crisis. It is adopted as one of the macroeconomic indicators in a cluster of countries (OECD countries) within a particular period of time. Since researchers try to predict financial crisis by observing the deterioration in the macroeconomic indicators well before a real financial crisis occurs, the analysis of current account variable is rather important. Therefore, as shown in equation (1), the binary dependent variable (CA_{it}) is assumed to be 1 if the the value of current account is below the zero threshold any time within annual current account prospect.

The parametric (regression) approach provides useful information to investigate the possibility of financial distress and macroeconomic variables may demonstrate deterioration 12-16 months before a financial crisis. With the parametric (regression) approach, researchers and analysts may detect this deterioration earlier and identify signs of fragility. Consequently, there will be more time for policy makers to take preventive actions and develop necessary policies prior to a financial crisis (Kaminsky et al., 1998).

Table 1. Definitions of variables used in the study

Variable	Abbreviation	Definition
Dependent Variable		
Current Account Deficit	CA	Current Account Deficit / Real GDP
Explanatory Variables		
Real GDP	GDP	Measure of the value of economic output adjusted for price changes.
Consumer Price Index	CPI	A statistical estimate constructed using the prices of a sample of representative items whose prices are collected periodically.
Unemployment Rate	UR	A percentage found by dividing the number of unemployed individuals by all individuals currently in the labor force.
Export Growth Rate	EGR	The amount by which the value of an economy's exports grows over a period of time.
Import Growth Rate	IGR	The amount by which the value of an economy's imports grows over a period of time.
Public Expenditure	PE	The spending made by the government of a country.
Foreign Trade Rate	FTR	Rate of foreign trade between countries.

In this research, the variables that compose the research model are grouped as dependent variable and the explanatory variables. Current account deficit is our dependent variable and the selection of the explanatory variables, which are included in our logit model, is based upon the previous literature and the data attainability of the OECD member countries. The vector of explanatory variables in our logit model consists of set of 7 explanatory variables that are commonly used in empirical modelling of financial crisis. Our explanatory variables are real GDP, consumer price index (CPI), unemployment rate, export growth rate, import growth rate, public expenditure and foreign trade rate.

Current account deficit is recognized as one of the external variables in the literature, which is closely related to the degree of fragility. *Current account* can be defined as the subtraction of consumption expenditure from gross spendable income. From another perspective, it is the level of domestic savings to meet investments (Zafir and Sezgin, 2012). It is also beneficial to consider the broader definition of current account, which includes earnings on investments as well as trade in goods and services. When a country has current account deficit, it purchases more goods and services from abroad than it sales goods and services to foreign countries (Coughlin et al., 2006). If this value is above a certain level, it indicates that the current account deficit is unsustainable.

The other variable, the *real exchange rate* is used as a proxy variable for currency depreciation or appreciation. Mostly, financial crises are associated with powerful appreciation that hampers competitive capacity in the external market and disorders the current account. In our study, *public expenditures*, which could cause a steady rise in budget deficit and lead to financial crisis eventually, are used as a fiscal variable. Our other explanatory variable, *real GDP* also indicates the sensivity of the economy in case of a financial crisis, especially when lower GDP growth exists. *Import growth rate* will lower competitiveness and lead to devaluation as opposed to *export growth rate*. Domestic inflation rate or *consumer price index (CPI)*, *unemployment rate* and *public expenditures* are considered to have a direct effect on current account deficit and also on the crisis indicator.

In our logit model we adopt the approach developed by Lestano and Kuper (2003), which enables one explanatory variable to have a significant impact on the occurrence of current account deficit. This situation also affects the probability of one or more types of financial crises to occur simultaneously. Our empirical analysis is based upon

actual annual data collected in the sample period 2005 and 2014 for each country. We decided to use actual annual data in order to avoid the problem of missing value circumstances or the absence of real monthly data for most of our explanatory variables for our sample countries. This has been the case in many recent papers searching the determinants or foreseeability of financial crisis, where the frequency of data was chosen to be annual, not monthly. We also avoided interpolating the actual annual data into monthly data due to some econometric issues.

Table 2. Estimation of the broad binary logit fixed-effect regression model

Analysis Of Maximum Likelihood Parameter Estimates						
Parameter	Estimate	Standard Error	Wald 95% Confidence Limits		Wald Chi-Square	Probability
Intercept	3.9289	2.9718	-1.8957	9.7534	1.75	0.1861
2005	-1.6458	3.3108	-8.1348	4.8232	0.25	0.6191
2006	-1.9702	3.7812	-9.3813	5.4408	0.27	0.6023
2007	-2.6044	3.8208	-10.0931	4.8842	0.46	0.4955
2008	-2.4356	3.4434	-9.1846	4.3134	0.50	0.4794
2009	-2.1211	3.4241	-9.1512	5.4211	0.37	0.5711
2010	-1.8233	3.7774	-9.8741	5.5212	0.45	0.4944
2011	-1.3344	3.8552	-10.2851	4.8919	0.35	0.3642
2012	-1.9981	3.7885	-8.1252	4.5473	0.28	0.5874
2013	-2.2193	3.1452	-9.4561	5.5632	0.51	0.4241
2014	0.0000	0.0000	0.0000	0.0000	.	
Real GDP	0.0101	0.2733	-0.5256	0.5458	0.00	0.9706
CPI	-0.9065	0.5283	-1.9419	0.1290	2.94	*0.0862
Unemployment Rate	-0.7954	0.2351	-1.2562	-0.3345	11.44	***0.0007
Export Growth Rate	0.0203	0.0903	-0.1567	0.1973	0.05	0.8220
Import Growth Rate	0.0482	0.0988	-0.1453	0.2418	0.24	0.6252
Public Expenditure	0.2169	0.1056	0.0099	0.4239	4.22	**0.0400
Foreign Trade Rate	0.0634	0.1356	-0.2024	0.3293	0.22	0.6400

Table 3. Criteria for assessing goodness of fit

Criterion	Value
Log Likelihood	-34.8107
Full Log Likelihood	-34.8107
AIC (smaller is better)	93.6214
AICC (smaller is better)	98.2781
BIC (smaller is better)	122.2057

Note: ***, **, * indicated at least significant at 1%, 5% and 10% level, respectively.

What do these estimates mean? The parameter of real GDP indicates that if *real GDP* increases for 1%, the estimated probability of current account deficit increases by 0.01 if all other variables stay constant. A one point increase in *CPI* leads to a probability decrease by 0.90. A 1% increase in the *rate of unemployment* causes the estimated probability to drop by 0.79. The increase of export growth rate by 0.02 and the increase of *import growth rate* for one point will increase the probability that current account will outbreak by 0.04, if we hold the remaining six variables constant. A

one point increase in public expenditure will cause a rise in predicted probability of current account deficit to occur by 0.21 when all other variables remain unchanged. Similarly, the parameter of foreign trade rate rises for 1% and the predicted probability of current account deficit grows by 0.06 if all other variables are constant.

According to Table 2, *unemployment rate*, *public expenditure*, *CPI* are all statistically significant at 1%, 5% and 10% significance levels, respectively. The coefficients of *CPI* and *unemployment rate* are negative, whereas, the coefficient of *public expenditure* is positive. The results indicate that the presence of *CPI* and *unemployment rate* tend to reduce *current account deficit*, where the coefficients of both of these variables are found to be negative. This can be interpreted that as the *CPI* and *unemployment rate* increase (decrease) the *current account deficit* decreases (increases).

An overvalued currency or a high rate of inflation increases the *current account deficit*, which may lead to a crisis indirectly. *CPI* or inflation rate, an overvalued real exchange rate and reserve losses do not only have a direct effect on the crisis indicator, but also have an indirect effect on the economies of 16 OECD member countries by increasing the probability of a volatile regime and financial crisis. When we evaluate the probability of a financial crisis, it can be said that this indirect effect dominates the direct effect. On the other hand, as *public expenditure* increases, so does the *current account deficit*. The observed positive relationship between the *current account deficit* and *public expenditure* can be interpreted as the higher the percentage of *public expenditure* the higher the *current account deficit*.

Table 4. Estimation of the reduced binary logit fixed-effect regression model

Analysis Of Maximum Likelihood Parameter Estimates						
<i>Parameter</i>	<i>Estimate</i>	<i>Standard Error</i>	<i>Wald 95% Confidence Limits</i>		<i>Wald Chi-Square</i>	<i>Probability</i>
Intercept	2.1934	2.1946	-2.1080	6.4948	1.00	0.3176
2005	1.0124	1.1649	-1.2708	3.2955	0.76	0.3848
2006	1.0310	1.2227	-1.3654	3.4274	0.71	0.3991
2007	0.5569	1.1562	-1.7092	2.8230	0.23	0.6300
2008	0.3681	1.1422	-1.8706	2.6068	0.10	0.7472
2009	1.0112	1.1143	-1.3307	3.1944	0.67	0.4523
2010	0.2213	1.1112	-1.2331	3.7843	0.43	0.7312
2011	0.9311	1.1292	-1.2334	2.3448	0.45	0.8211
2012	0.2739	1.0982	-1.3229	2.3649	0.56	0.4514
2013	0.7812	1.2934	-1.0789	2.4982	0.78	0.3519
2014	0.0000	0.0000	0.0000	0.0000	.	
CPI	-1.0410	0.4932	-2.0076	-0.0744	4.46	0.0348
Unemployment Rate	-0.7564	0.2108	-1.1695	-0.3433	12.88	0.0003
Public Expenditure	0.2091	0.0943	0.0243	0.3939	4.92	0.0266

In Table 4, we predicted the reduced binary logit model following the previous model criteria of statistical significance for each of these variables. The statistical properties of the reduced model are suitable. The variable of unemployment rate is highly significant at the level of 1% and the other variables are statistically significant at the level of 5%. As can be seen from Table 4, the estimate coefficient of the unemployment rate has negative sign in accordance with teorical literature. In other words, *current account deficit* increases depending on the country's economic growth, in the periods in which economic growth slows down or turns to negative swiftly. On the other hand, we observe that the rate of unemployment increases in the periods in which economic stability or stagnation are experienced. In this case, while the economic growth accelerates, unemployment rate drops significantly, which gives rise to the extension of *current account deficit*. Public expenditure variable is also correlated with *current account deficit* positively as presented in the literature. In the same way, in theory, as *current account deficit* increases, so does the CPI or inflation rate.

4. Conclusion

The adoption of current account policy as a framework for monetary policy in a number of OECD countries constitutes one of the most important subjects for Central Banks while conducting their economic policies since the introduction of floating exchange rates at the beginning of 1970s. The sustainability of current account deficit is a matter of concern

for almost all governments since current account deficit becomes more acute and unsustainable and creates volatility and may even lead to financial distress or financial crisis.

As the process of globalization has accelerated since the beginning of 1990s, the current account deficits of many developed and developing countries have been increasing tremendously as a percentage of their GDPs. It was agreed by many researchers that this trend could not be sustained and current account deficits will need to be reversed over the long run. The question is therefore how painful and disruptive this inevitable adjustment will be for the world economic growth and stability. Although there is no common assessment among the financial analysts that there is a significant relationship between financial crises and the problem of current account deficit, policymakers should take corrective measures in order to provide the required structural changes and to prevent hard landing of the world economy.

The problem of current account deficit has been one of the main reasons why many developing countries have experienced economic turmoil. Many countries have a surplus in accounts only in the periods of crises, accompanying a low level of economic growth. In this context, after a certain point, it would be logical to question the impact of current account deficit on financial crisis. A strong inverse correlation between current account deficits and foreign capital flows has been observed for many countries. In this regard, instead of financing current account deficits with hot money flows, which increase short-term debts, financing it with foreign direct investment and long-term foreign currency inflows will create less problems for the economies of countries.

Flows of hot money to a certain country will probably reduce the level of exports due to overvalued domestic currency and increased deficits. When the hot money begins to leave the country, economy will encounter with serious problems since the country depends on imports rather than exports and is far from being a production economy. The economy has already become a consumption economy. An economic growth based on current account deficits generally leads to the production increase in cheap import inputs, increase in capital inflows and an overvalued currency. As part of a vicious circle, increases in investment rates and high growth rates provided by foreign investments will lead to current account deficits and a large increase in current account deficit will be one of the main reasons of the escape of the hot money.

Our econometric analysis based on a binomial logit model on a panel of the 16 OECD countries allows the general conclusion that macroeconomic indicators do work, at least in our current account deficit model for our selected OECD countries. According to our empirical study, our explanatory variables of CPI, unemployment and public expenditure are statistically significant. While a significant positive relationship has been observed between public expenditure and the current account deficit, significant negative relationship has been observed between the current account deficit and the CPI and unemployment rate. Our results indicate that these three variables have a vital impact on the sustainability of current account deficit for those OECD countries. These findings are in line with the previous empirical studies of many researchers concerning the financial shocks in macroeconomic variables (Bucevska, 2011; Obstfeld et al., 2009; Cartapanis et al., 2002; Reinhart and Rogoff, 2009; Saman and Pauna, 2013). Demirguc-Kunt and Detragiache (1998) obtained similar findings that high inflation or CPI are significantly correlated with the outbreak of financial crisis.

As a suggestion for further studies, researchers may question the role of current account imbalances, which may lead to financial crises in developed as well as in developing countries. Different variables may be included and a wider time span can also be studied to analyze the current account deficit problem of countries in the aftermath of the recent global financial crisis. Additionally, budget deficit issue can also be investigated by using the limited dependent variable probability models. At the same time, by using the variables of current account deficit and budget deficit, researchers may significantly contribute to the major literature for the development of EWS, which ensures prediction of financial distress or crises.

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