

Global Imbalances in Current Account Balances

Melike Bildirici¹ and Fazil Kayıkçı²

Abstract

Persistent current account deficits were observed in some developing countries that are received substantial foreign capital in the last decades. This has raised the issue of sustainability and increased the volume of studies about the measures of sustainable current account deficits in the economic literature. Researchers especially concentrated on the issue that whether the deficits result with a balance of payments crisis or not. In this paper, we use Markov Switching Auto Regressive models with three regimes in 1975–2009 periods annually for analyzing the current account balances of some developing countries; Argentina, Brazil, Mexico and Turkey. Since oil exports (or imports) constitute large amounts in trade balances of these countries and current account balances represent persistency in their nature, we have used oil prices together with the current account balances itself in order to explain the structure of the current account balance levels of these countries. Results indicate that behavior of the current account balances differs in response to a being an oil exporter or importer which highlights the structural part of the current account balances.

JEL classification numbers: C22, C52, F22

Keywords: Current Account, Balance of Payments, Oil prices, Markov Switching, Auto Regressive.

1 Introduction

The current account balance of an economy is an important legend for its performance and has many significant roles in policymakers' analyses of economic growth and development. First, its importance stems from the reality that the current account balance

¹Yıldız Technical University, Department of Economics, İstanbul.
e-mail: melikebildirici@gmail.com

²Yıldız Technical University, Department of Economics, İstanbul.
e-mail: fkayikci@yildiz.edu.tr

is closely related to the level of the saving-investment ratio which is one of the key factors for economic growth. Second, a country's current account balance reflects mainly the trade balance, which is the sum of domestic residents' transactions with entire world in the markets for goods and services. Third, since the current account balance determines the evolution of a country's stock of net claims on the rest of the world, it represents the intertemporal decisions of residents. In this respect, growing debt stock of the country matters because it requires trade surpluses in the future to pay it back. Consequently, economists have been trying to explain the behavior of the current account balances, estimate their sustainable levels and looking for the causes that makes required changes in the balance through policy actions (Aristovnik, [1]).

Different behavior of foreign exchange flows in the 1990s from the former periods was the expansion in the size of the flows throughout the world. Parallel to this development, persistent current account deficits were observed in some developing countries receiving substantial foreign capital. Furthermore, in contrast to the 1980s, when current account deficits were regarded as being closely related to the fiscal deficits, the private saving and investment decisions assumed to play a major role in the determination of capital flows in the 1990s. Likewise, the former periods were characterized by external borrowings whereas in the 1990s, portfolio and foreign direct investment occupied the bulk of the foreign exchange flows (Milesi-Ferretti and Razin, [2]).

Most Latin American countries have been living in an environment of economic crises and significant current account deficits for several years. From this perspective, they were the group of countries that had similarities with Turkish economy for the last decades. Even though the current account balances of some of them had small surpluses in 2000s, Latin American countries were generally remembered as their current account deficits. In Argentina, average current account deficit was 4,49% of Gross Domestic Product (GDP) in 1990s, which has become to small surpluses in 2000s. Its current account was in a surplus of 8 billion dollars in 2009 after global crisis, which was in a deficit of 14 billion dollars in 1998. In Brazil, average current account deficit was 1,68% of GDP in 1990s, which has reduced to 0,72% in 2000s. Its current account deficit was reduced to 24 billion dollars in 2009 after global crisis, which had reached to its highest level in 1998 by 34 billion dollars. In Mexico, average current account deficit was 3,70% of GDP in 1990s, which has reduced to 1,41% in 2000s. Its current account deficit was reduced to 6 billion dollars in 2009 after global crisis, which had reached to its highest level in 2000 by 19 billion dollars. In Turkey, average current account deficit was 3,10% of GDP in 1990s, which has increased to 5,60% in 2000s. Its current account deficit was reduced to 14 billion dollars in 2009 after global crisis, which had reached to its highest level in 2000 by 48 billion dollars.

Because oil exports (or imports) constitute large amounts in trade balances of these countries and current account balances represent persistency in their nature, we have used oil prices together with the current account balances itself in order to explain the structure of the current account balances of these countries.

Persistency can be counted as a leading factor for the unsustainability of the current account deficits. A large and persistent current account deficit causes a negative net foreign asset position that becomes larger and larger. Thus, Net foreign asset position or prior periods' current account balances can measure the persistency in the current account deficits (or surpluses). Calderon, Chong and Loayza [3] have found that the current account deficits are persistent by using the lagged value of the current deficit as an explanatory variable. Gruber and Kamin [4] have used NFA position and supported the

persistence in the current account balances. However, Milesi-Ferretti and Razin [5] have detected that reversals in the current account occur if the lagged values of the current account deficits are high which indicates a negative correlation between the current account and its lagged value. The financial payments arising from this position may become large enough to cut current consumption and investment. In this case, the current account deficit itself generate changes in GDP growth and thus in import spending, which make its present level unsustainable.

Oil had the biggest share in value of imports and exports in the trade balances of most of the countries. However, some negative developments in the world energy market, such as conflicts between energy exporters and energy item's new position as a speculative asset in financial markets rather than commodity have increased the energy prices (Aytemiz and Şengönül, [6]). Furthermore, oil prices have been much volatile in last years. Price of Brent oil has climbed over 140 dollars per barrel in 2008 and 91 dollars per barrel in 2010 from 19 dollars at the end of 2001. Argentina, Brazil, Mexico and Turkey are emerging countries with a growing economy challenged by a growing demand for energy. Their energy consumption has grown and will continue to grow along with their economies. Since oil has the biggest share in total primary energy consumption, oil prices can also be a good variable for explaining the current account positions of these countries.

2 Literature Review

The pattern of current account imbalances has received considerable attention in the economics literature for many years. However, growth of current account deficits and financial crisis in the last decades has made the policymakers and economists to pay more attention and to work more frequently on the issue. The literature has especially focused on the determinants and the sustainability of the current account deficits from different points of views. Even though it can be partitioned into these two broad categories, the literature on the current account has much more variety both within these groups and in other relevant theoretical considerations.

Until recently, most empirical studies have mainly dealt with the response of the current account balance to the shocks in the one specific determinant. A broad part of the literature consists of from the studies that specifically choose a structural parameter and analyze its effects on the current account such as demography in Kim and Lee [7], inflation in Mansoorian and Mohsin [8], inflation stabilization in Calvo [9], interest rates in Boileau and Normandin [10], exchange rate adjustments in Obstfeld and Rogoff [11], Devereux and Genberg [12], exchange rate intervention in Mann [13], terms of trade shocks in Matsuyama [14], Kent and Cashin [15], terms of trade shocks as Harberger-Laursen-Metzler effect in Obstfeld [16], Bouakez and Kano [17], economic integration in Blanchard and Gravazzi [218], financial development in Chinn and Ito [19], capital mobility in Adalet and Eichengreen [20], Yan [21], openness in Cavallo and Frenkel [22], liberalization in Paulino [23], uncertainty in Ghosh and Ostry [24].

Raymond and Rich [25], Clements and Krolzig [26], and Holmes and Wang [27] analyzed the impact of oil shocks on the U.S. and U.K. business cycles with the MS model. Furthermore, Cologni and Manera [28] explored the impact of oil shocks on output growth for G-7 countries with the MS model. In two studies, Bildirici, Alp, and Bakirtas [29], [30] analyzed the issue from a different perspective by examining the underlying factors that caused the increase of oil prices in 1970s and in the 2000s. The authors

asserted that the 1974 crisis, the 1979 crisis, and the 2007-2008 great recession occurred as a result of an increase in oil prices caused by the U.S. current and budget deficits, and they tested the 2007-2008 great recession within the framework of petroleum prices, exchange rates, budget deficits, and current account deficits.

3 Data and Methodology

Data were taken from the World Bank's World Development Indicators and the Energy Information Administration's (EIA) statistics. CA represents the growth of the current account balance of the countries ($\log(\text{CurrentAccount}_t/\text{CurrentAccount}_{t-1})$), OP represents the growth of oil prices ($\log(\text{OilPrice}_t/\text{OilPrice}_{t-1})$) for the 1975 – 2009 period. Current account balances of these countries as a percentage of their GDP were presented in figure 1 below.

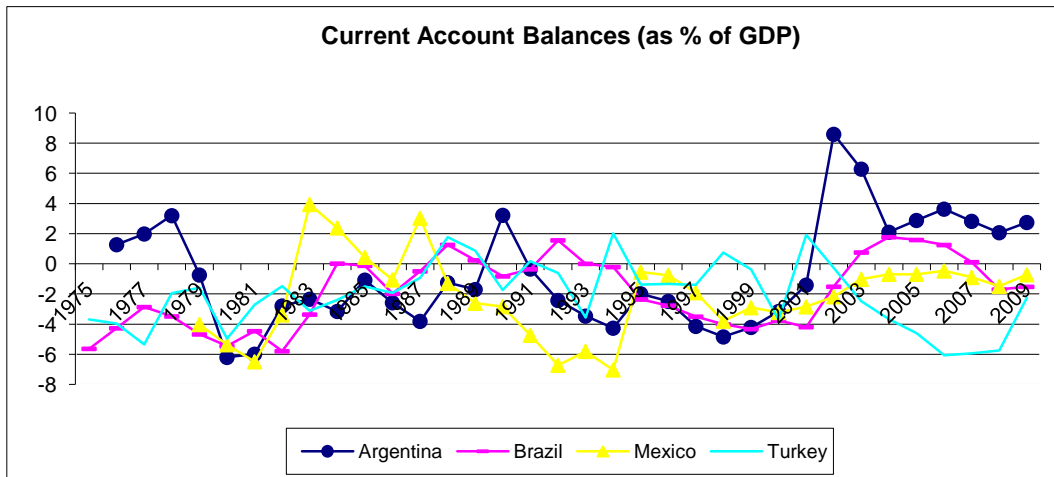


Figure 1: Current Account Balances of Countries (as a Percentage of GDP)

We have implemented Markov Switching Auto Regressive (MS-AR) model to investigate the behavior of current account balances of Argentina, Brazil, Mexico and Turkey together with the response of their current accounts to the oil price shocks. These models have been extensively used for the business cycles after the seminal work of Hamilton [31]. Hamilton [31] considered a Markov switching model as mean of the process changes according to the unobserved state.

$$y_t - \mu(s_t) = \beta_t \sum_{i=1}^n (y_{t-i} - \mu(s_{t-i})) + \varepsilon_t \quad (1)$$

The probability that the state variable equals some particular value j depends on the past only through the most recent value s_{t-1} :

$$P\{s_t = j | s_{t-1} = i, s_{t-2} = k, \dots\} = P\{s_t = j | s_{t-1} = i\} = p_{ij} \quad (2)$$

As such, a structure may prevail for a random period of time, and will be replaced by another structure when switching takes place. The transition probability p_{ij} gives the probability that state i will be followed by state j . Clearly, the transition probabilities satisfy

$$p_{i1} + p_{i2} + \dots + p_{iN} = 1 \tag{3}$$

MSI (Markov Switching Intercept) model is;

$$\Delta CA_t = c(s_t) + \sum_{i=1}^n \alpha_i \Delta CA_{t-i} + \sum_{j=1}^m \beta_j \Delta OP_{t-j} + \varepsilon_t \tag{4}$$

MSIH (Markov Switching Intercept Heteroskedastic) model is the combination of equation 4 and 5;

$$\varepsilon_t \sim (0, \sigma^2(s_t)) \tag{5}$$

Whereas MSIA (Markov Switching Intercept Autoregressive) model is the combination of equation 6 and 7;

$$\Delta CA_t = c(s_t) + \sum_{i=1}^n \alpha_i(s_t) \Delta CA_{t-i} + \sum_{j=1}^m \beta_j(s_t) \Delta OP_{t-j} + \varepsilon_t \tag{6}$$

$$\varepsilon_t \sim (0, \sigma^2) \tag{7}$$

And the MSIAH (Markov Switching Intercept Autoregressive Heteroskedastic) model is the combination of equations 5 and 6.

4 Empirical Results

In this paper, we have used Markov-switching models with three regimes for exploring the relationship between changes in oil prices and current account balances of Argentina, Brazil, Mexico and Turkey. We have been able to evaluate the behavior of the current accounts of these countries in three economic states (regimes): a state of high current account deficit, a moderate current account balance, and current account surplus. The models we introduced have been successful in identifying the major imbalances in the current accounts related to oil price, which these countries experienced in last decades. In all models, except the regime 2 for Argentina, the standard errors are large for all regimes and countries which suggest higher volatility.

Table 1: MSIAH(3)-ARX(2) model of Argentina 1978-2009

	Regime 1		Regime 2		Regime 3	
	Coefficient	t- value	Coefficient	t- value	Coefficient	t- value
Constant	-2.32	-6.94	-1.25	26.57	5.85	9.67
CA(-1)	0.50	4.78	-0.02	-0.83	-0.16	-1.17
CA(-2)	-0.34	-3.44	0.85	30.20	-0.40	-2.99
OP	0.76	0.85	3.13	32.47	2.08	2.13
OP(-1)	-1.76	-2.36	8.70	65.98	0.86	0.69
OP(-2)	-1.04	-1.19	1.49	15.75	-2.64	-1.20
	Transition Probabilities			Regime Properties		
	Regime 1	Regime 2	Regime 3		Observation	Duration
Regime 1	0.790	0.209	0.000	Regime 1	15.5	4.77

Regime 2	0.343	0.546	0.111	Regime 2	8.5	2.20
Regime 3	0.075	0.225	0.690	Regime 3	8.0	0.80
Log likelihood	-36.36					
AIC	3.96					
LR Linearity Test	75.54		Chi(14) =(0.00)**			
Std. Error (regime 1)	0.889					
Std. Error (regime 2)	0.078					
Std. Error (regime 3)	0.825					
StdResids: portmanteau(5): Chi(3)= 2.15 [0.54] , StdResids: normality test : Chi(2)= 0.33 [0.84], StdResids: hetero test: Chi(10)= 8.07 [0.62] F(10,16) = 0.53 [0.83] , StdResids: hetero-X test: Chi(20)= 15.04 [0.77] F(20,6)= 0.26 [0.98] , PredError: portmanteau(5): Chi(3)= 3.36 [0.33] , PredError: normality test : Chi(2)= 18.21 [0.0001] **, PredError: hetero test: Chi(10)= 5.81 [0.83] F(10,16)= 0.35 [0.94] , PredError: hetero-X test: Chi(20) = 13.76 [0.84] F(20,6)= 0.22 [0.99] , AR Error: portmanteau(5): Chi(3)= 0.59 [0.89], AR Error: normality test : Chi(2)= 8.52 [0.01]* , AR Error: hetero test: Chi(10) = 5.50 [0.85] F(10,16)= 0.33 [0.95] , AR Error: hetero-X test: Chi(20)= 14.08 [0.82] F(20,6) = 0.23 [0.99]						

When we overview the model results for each country in our sample, we see that there exists some differences between them from some aspects. In the MSIAH(3)-ARX(2) model for Argentina, the first regime contains the periods 1979 - 1985, 1991 - 1997 and 2000 which are parallel for the years that current account balance of Argentina was in high deficit. Transition probabilities, $\text{Prob}(s_t = 1 \mid s_{t-1} = 1) = 0.79$, $\text{Prob}(s_t = 2 \mid s_{t-1} = 2) = 0.55$, and $\text{Prob}(s_t = 3 \mid s_{t-1} = 3) = 0.69$ suggest the persistence of the regimes. Regime 1 and 3 are the most persistent regimes. Regime 1 lasts on 4.77 years, while the duration of a second and third regimes are 2.20 and 0.80 years respectively. Significance of oil coefficients and their signs vary from regime to regime that indicates the asymmetries in the oil prices and the current account balances relationship.

Table 2: MSIA(3)-ARX(1) model of Brazil 1976-2009

	Regime 1		Regime 2		Regime 3	
	Coefficient	t- value	Coefficient	t- value	Coefficient	t- value
Constant	-1.66	-5.13	-0.58	-3.26	1.34	4.70
CA(-1)	0.68	7.67	0.67	9.45	0.71	6.87
OP	0.01	0.03	1.52	2.64	0.63	0.64
OP(-1)	0.27	0.58	0.83	1.30	0.03	0.04
Transition Probabilities			Regime Properties			
	Regime 1	Regime 2	Regime 3		Observation	Duration
Regime 1	0.713	0.000	0.286	Regime 1	14.0	3.49
Regime 2	0.378	0.622	0.000	Regime 2	11.0	2.64
Regime 3	0.000	0.473	0.527	Regime 3	9.0	2.11
Log likelihood	-48.20					
AIC	3.95					

LR Linearity Test	16.81 Chi(8) =(0.032) *			
Std. Error (regime 1)	0.540			
Std. Error (regime 2)	0.540			
Std. Error (regime 3)	0.540			
StdResids: portmanteau(5): Chi(4) = 10.10 [0.03] * , StdResids: normality test : Chi(2) = 0.01 [0.99] , StdResids: hetero test: Chi(6) = 5.16 [0.52] F(6,24) = 0.71 [0.64] , StdResids: hetero-X test: Chi(9) = 5.66 [0.77] F(9,21) = 0.46 [0.88] , PredError: portmanteau(5): Chi(4) = 5.66 [0.22] , PredError: normality test : Chi(2) = 2.47 [0.29] , PredError: hetero test: Chi(6) = 6.18 [0.40] F(6,24) = 0.88 [0.51] PredError: hetero-X test: Chi(9) = 10.63 [0.30] F(9,21) = 1.06 [0.42] , AR Error: portmanteau(5): Chi(4) = 9.71 [0.04] * , AR Error: normality test : Chi(2) = 2.98 [0.22] , AR Error: hetero test: Chi(6) = 6.26 [0.39] F(6,24) = 0.90 [0.50] , AR Error: hetero-X test: Chi(9) = 8.71 [0.46] F(9,21) = 0.80 [0.61]				

In the MSIA(3)-ARX(1) model for Brazil, the first regime contains the periods 1978 - 1982, 1986, 1990 and 1995 - 2001 which are exactly the years that current account balance of Brazil was in high deficit. Transition probabilities, $\text{Prob}(s_t = 1 | s_{t-1} = 1) = 0.71$, $\text{Prob}(s_t = 2 | s_{t-1} = 2) = 0.62$, and $\text{Prob}(s_t = 3 | s_{t-1} = 3) = 0.52$ suggest the persistence of the regimes. Regime 1 is the most persistent one with probability 0.71 is consistent with the longer periods of the current account deficits in Brazil. Regime 1 lasts on 3.49 years, while the duration of a second and third regimes are 2.64 and 2.11 years respectively. $\text{Prob}(s_t = 2 | s_{t-1} = 3) = 0.47$ and $\text{Prob}(s_t = 1 | s_{t-1} = 2) = 0.37$ reflects the high probabilities that a current account surpluses are followed by a moderate deficits and moderate deficit periods are followed by the crisis. This shows that there is a tendency in the Brazilian current account balance towards high deficits. All coefficients for oil prices are positive and the coefficient for regime 2 is significant. This states that oil prices affect the current account balance of Brazil positively, which is the expected result for Brazil since it is one of the important oil producers.

Table 3: MSIA(3)-ARX(2) model of Mexico 1981-2009

	Regime 1		Regime 2		Regime 3	
	Coefficient	t- value	Coefficient	t- value	Coefficient	t- value
Constant	-1.89	-8.18	-0.50	-1.88	-1.73	-5.45
CA(-1)	0.55	4.95	0.28	1.03	-0.01	-0.15
CA(-2)	0.21	2.37	0.19	0.64	-0.62	-8.35
OP	0.64	2.03	1.05	2.21	-7.81	-6.25
OP(-1)	0.53	1.55	0.50	0.91	-10.55	-15.46
OP(-2)	-1.80	-5.21	-0.45	-1.06	-0.20	-0.33
Transition Probabilities			Regime Properties			
	Regime 1	Regime 2	Regime 3		Observation	Durat ion
Regime 1	0.686	0.159	0.155	Regime 1	12.1	3.18
Regime 2	0.000	0.886	0.114	Regime 2	10.0	8.77
Regime 3	0.473	0.000	0.527	Regime 3	6.9	2.12

Log likelihood	-29.97			
AIC	3.79			
LR Linearity Test	63.58	Chi(12) =(0.00)**		
Std. Error (regime 1)	0.355			
Std. Error (regime 2)	0.355			
Std. Error (regime 3)	0.355			
StdResids: portmanteau(5): Chi(3) = 4.01 [0.25] , StdResids: normality test : Chi(2) = 2.74 [0.25] , StdResids: hetero test: Chi(10) = 9.64 [0.47] F(10,13) = 0.64 [0.75] , StdResids: hetero-X test: Chi(20) = 21.80 [0.35] F(20,3) = 0.45 [0.88] , PredError: portmanteau(5): Chi(3) = 3.77 [0.28] , PredError: normality test : Chi(2) = 4.59 [0.10] , PredError: hetero test: Chi(10) = 13.86 [0.17] F(10,13) = 1.19 [0.37] , PredError: hetero-X test: Chi(20) = 26.56 [0.14] , F(20,3) = 1.63 [0.38] , AR Error: portmanteau(5): Chi(3) = 3.22 [0.35] , AR Error: normality test : Chi(2) = 5.01 [0.08] , AR Error: hetero test: Chi(10) = 14.51 [0.15] F(10,13) = 1.30 [0.32] , AR Error: hetero-X test: Chi(20) = 25.54 [0.18] F(20,3) = 1.10 [0.54]				

In the MSIA(3)-ARX(2) model for Mexico, the first regime contains the periods 1981, 1985 - 1986, 1989 - 1994 and 1998 - 2000 which are coincides with the years that current account balance of Mexico was in high deficit. Transition probabilities, $\text{Prob}(s_t = 1 \mid s_{t-1} = 1) = 0.68$, $\text{Prob}(s_t = 2 \mid s_{t-1} = 2) = 0.88$, and $\text{Prob}(s_t = 3 \mid s_{t-1} = 3) = 0.52$ suggest the persistence of the regimes. Regime 2 is the most persistent one with probability 0.88 is consistent with the reality that the current account balance is generally in moderate deficits in Mexico. Regime 1 lasts on 3.18 years, while the duration of a second and third regimes are 8.77 and 2.12 years respectively. Dominance of the second regime is also confirmed by its higher duration while the weaknesses of the third regime is also validated by the high probability that it is followed by the first regime; $\text{Prob}(s_t = 1 \mid s_{t-1} = 3) = 0.47$. Significant coefficients for oil prices are OP in regime 1 and 3 which are positive, OP and OP(-1) in regime 3 which are negative and high in magnitude shows that oil prices effect the current account balance of the Mexico positively in the deficit periods and negatively in the surplus periods although it is one of the major oil exporter countries.

Table 4: MSIA(3)-ARX(1) model of Turkey 1975-2009

	Regime 1		Regime 2		Regime 3	
	Coefficient	t- value	Coefficient	t- value	Coefficient	t- value
Constant	-0.32	-1.11	-2.49	-8.93	0.29	1.14
CA(-1)	0.83	11.77	-0.09	-0.94	-0.25	-2.21
OP	-1.68	-3.73	0.65	1.29	-3.38	-4.58
OP(-1)	-4.43	-8.32	-3.31	-6.24	-4.60	-10.29
Transition Probabilities						
	Regime 1	Regime 2	Regime 3		Observation	Duration
Regime 1	0.724	0.101	0.176	Regime 1	12.5	3.62
Regime 2	0.000	0.805	0.195	Regime 2	11.0	5.12

Regime 3	0.371	0.095	0.534	Regime 3	10.4	2.15
Log likelihood						
		-49.89				
		3.94				
LR Linearity Test		32.37 Chi(8) =(0.00)**				
Std. Error (regime 1)		0.532				
Std. Error (regime 2)		0.532				
Std. Error (regime 3)		0.532				
StdResids: portmanteau(5): Chi(4) = 10.31 [0.01] * , StdResids: normality test : Chi(2) = 2.56 [0.27] , StdResids: hetero test: Chi(6) = 8.68 [0.19] F(6,25) = 1.37 [0.26] , StdResids: hetero-X test: Chi(9) = 16.01 [0.06] F(9,22) = 2.06 [0.08] , PredError: portmanteau(5): Chi(4) = 3.34 [0.50] , PredError: normality test: Chi(2) = 6.80 [0.03]* , PredError: hetero test: Chi(6) = 3.32 [0.76] F(6,25) = 0.43 [0.84] , PredError: hetero-X test: Chi(9) = 5.73 [0.76] F(9,22) = 0.47 [0.87] , AR Error: portmanteau(5): Chi(4) = 6.22 [0.18] , AR Error: normality test : Chi(2) = 4.56 [0.10] , AR Error: hetero test: Chi(6) = 5.23 [0.51] F(6,25) = 0.73 [0.62] , AR Error: hetero-X test: Chi(9) = 6.37 [0.70] F(9,22) = 0.54 [0.82]						

In the MSIA(3)-ARX(1) model for Turkey, the first regime contains the periods 1976 - 1977, 1989, 1997 - 1998 and 2003 - 2009 which are coincides with the years that current account balance of Turkey was in high deficit especially after 2003. Transition probabilities, $\text{Prob}(s_t = 1 \mid s_{t-1} = 1) = 0.72$, $\text{Prob}(s_t = 2 \mid s_{t-1} = 2) = 0.80$, and $\text{Prob}(s_t = 3 \mid s_{t-1} = 3) = 0.53$ suggest the persistence of the regimes. Regime 1 and 2 are the most persistent regimes with high probabilities confirms the reality that the current account balance is always in a deficits in Turkey other than some exceptional years after crises. Regime 1 lasts on 3.62 years, while the duration of a second and third regimes are 5.12 and 2.15 years respectively. Tentativeness of the third regime is both affirmed by its lower duration and high probability of being followed by the crisis regime, 0.37. Significant coefficients for oil prices are OP and OP(-1) in regime 1, OP (-1) in regime 2, OP and OP(-1) in regime 3 which are all negative and high in magnitude which proves that oil prices significantly effect the current account balance of Turkey negatively, which is an expected result since Turkey is one of the net importers of oil.

5 Conclusion

Since the oil crisis of 1974, there has been strong interest in the question of how oil prices affect the GDP and trade balance of the countries. We have used Markov Switching Auto Regressive models with three regimes in 1975 – 2009 periods annually and analyzed the current account balances of some developing countries; Argentina, Brazil, Mexico and Turkey which had similarities in current account behavior but differed according to their oil export or import. Since oil export (or import) constitutes a large amount in these countries' trade balances and current account balances represent persistency in their nature generally, we have used oil prices and current account balances itself in order to explain the structure of the current account balance levels of these countries. Usage of oil price as exogenous variable improved the ability of each model specification to identify the different phases of the current account cycle for each country.

In this study, the first regime, which denotes the crises periods in the current account, has been found to be the most persistent regime in most of the models that evaluated the different countries. Furthermore, the transition probabilities from a moderate and surpluses regimes to a crisis regime are higher in oil importing countries. When the coefficients in the models are taken into account, important asymmetries in oil prices are recognized. While oil prices affect the current account balance positively for the oil exporting country; Brazil, they affect the current account balance negatively for the oil importing country; Turkey.

Most of the high deficit periods of current account balances of these countries are predicted well with the employed MSI-AR models. Moreover, results indicate that behavior of the current account balances differs in response to a being an oil exporter or importer. These may present information for these economies about possible oncoming balance of payments crises.

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