



The Causality Relationship Between The Current Account And The Capital And Financial Account: Evidence From Middle East Region

Mostafa Ahmed Radwan^a, Fatma Yousef Elshinawy^b, Kamal Eldin Hassan Ibrahim Eldaw^c, Awad Mohammed Osman^d, Ahmed Mohamed Farhan mohamed^e

^{a*,d}Assistant Professor of Economics, ^bAssistant Professor of Applied statistics, ^cAssociate professor of Economics, ^eAssistant professor of Mathematics and Actuarial Statistics

a,b,c,d,e Department of General courses, College of Applied Studies and Community Service, Imam Abdurrahman Bin Faisal University, Dammam, Saudi Arabia.

Email:^{a*}maradwan@iau.edu.sa,^bfyelshinawy@iau.edu.sa,^ckeeldaw@iau.edu.sa,^damhussein@iau.edu.sa,^eamfmohamed@iau.edu.sa

Abstract:

This study aims to test the causal relationship at the aggregate level between the current account and the capital and financial account in a number of countries in the Middle East (Egypt, Turkey, Tunisia) during the period (1977-2020), in addition to examining the causal relationship between the current account and the components of the capital and financial account represented in foreign direct investment, portfolio investment and other investments. Using the Causality Granger test based on the Unrestricted Vector Autoregressive Model (VAR), the study found that there is a causal relationship that extends from the capital and financial account to the current account, specifically that causal relationship went from the other investments item to the current account. These results indicate the need for policies aimed at attracting and managing foreign capital to take into account working to rationalize borrowing and try to obtain opportunities for financing on concessional terms, and to work for a sound financial system in order to allocate the bulk of external financing to development projects that support productive capacity and increase exports with a view to reducing the deficit current account.

Key words: causal relationship, foreign capital flows, current account, financial capital account

1656 | Mostafa Ahmed Radwan^a, The Causality Relationship Between The Current Account And The Capital And Financial Account: Evidence From Middle East Region

Introduction:

The relationship between the current account and the capital and financial account in developing countries has changed considerably since the rapid globalization of capital markets began in the late 1980s. Prior to the liberalization of financial markets, macroeconomic policies focused mainly on how to stabilize the current account in countries facing balance-of-payments difficulties, and access to international capital markets was seen as a means of financing the current account deficit, i.e. foreign capital flows were a source of financing the current account deficit, and the causal relationship therefore extended from the current account to the capital and financial account. However, with the early 1990s, it was observed that the current-account deficits of many emerging countries were widening in conjunction with the sharp rise in capital flows to those countries, which were no longer dependent on current-account changes, but had become a major source of current-account instability. The stability of the capital and financial account has therefore become an essential requirement for balance of payments stability

The academic research interest has changed in the recent period from studying the determinants of the current account deficit to studying the causal relationship between the current account and foreign capital flows. In this regard, many literatures have indicated a two-way relationship between the current account and foreign capital inflows. While the current account may affect the amount of foreign capital inflows that a country attracts, foreign capital inflows can affect the current account.

In the direction of the causal relationship from the current account to the capital and financial account, we must take into account the exchange rate system, and whether the current account imbalance will be treated through a change in the level of external obligations or foreign reserves. When the country finances its current account deficit through external obligations, that deficit will generate a surplus in the financial capital account, but in the event that the state does not want to move to external obligations, the prevailing exchange rate system will determine the expected impact of the current account deficit on the amount of capital flows Foreign Money (1999) Carranza and Wong.

On the other hand, we note that there are a number of channels through which foreign capital flows can affect the current account. In this regard, the study by Calvo et al. (1996) indicate that capital flows affect the current account through their impact on saving and investment. Imbalances in the current account are due to the mismatch between saving and investment, as the current account records an increasing deficit in periods witnessing an increase in the investment rate as a result of increased capital flows, while the level of savings remains constant. However, this interpretation will remain valid on the assumption that foreign capital flows, especially foreign direct investment, will be complementary to domestic investment, while if foreign

capital flows are a substitute for domestic investments, these capital flows will not necessarily have a negative impact on the current account. With regard to the impact of these flows on domestic saving, the study of Obstfeld and Rogoff (1994) indicated, through its Intertemporal Approach, that capital flows smooth consumption, and therefore these flows will have a negative impact on saving. In this context, the study of Calvo et al. (1996) indicated that the widening of the current account deficit is one of the undesirable macroeconomic effects of the large flows of capital to debtor countries as a result of the rise in the level of consumption and consequently aggregate demand.

The exchange rate regimes also have a role in determining the impact of foreign capital inflows on the current account. Under the flexible exchange rate regime, these flows will lead to an appreciation of the local currency, which leads to a decrease in competitiveness, and thus the deterioration of the current account. In the case of the fixed exchange rate system, the monetary authority's adoption of a policy of sterilization will push the domestic interest rate to rise, which will allow inward flows to continue without a change in relative prices or monetary aggregates, and in this case, the relationship between the two accounts will remain weak, at least in the short run¹. In the event that the sterilization process is not completed, the rapid growth in the money supply and low interest rates will discourage foreign investors on the one hand, and increase domestic absorption and relative prices on the other hand, which will lead to a current account deficit Wong and Carranza (1999).

From the foregoing, it is clear that the theoretical literature referred to different types of relationships between the current account and foreign capital flows. Thus, there was a need to conduct several empirical studies in order to shed more light and reach more specific results.

Using the Causality Granger Test based on the Unrestricted VAR Model, the study aimed to examine the causal relationship at the overall level between the current account and the capital financial account in a number of countries in the Middle East during the period (1977-2020), in addition to examining the causal relationship between the account. The current and the capital and financial account components represented in foreign direct investments, portfolio investments and other investments.

In addition to the introduction, this study consists of the second part that deals with literature review, then the third part that deals with data sources and econometrics analysis, and in the end the Conclusion and the most important recommendations will be presented.

1. The country's ability to continue the long-term sterilization process is limited, as the rise in domestic interest rates resulting from the open market operations to exchange local assets for foreign ones, will lead to more capital inflows, which will eventually lead to a rise in the real exchange rate, and thus deterioration of the balance of payments. Also, holding foreign assets at lower interest rates than domestic assets will eventually lead to financial losses for central banks, which will push them, in the medium and long term, to abandon this policy.

2- Literature review

The empirical studies focused on examining the causal relationship between the current account and the financial account can be classified into two groups of studies. The first group of these studies examined the relationship in developing or emerging countries, while the second group sought to test that relationship in both developing and developed countries.

Within the framework of the first group of studies, Morande (1988) study tested the Granger causal relationship between the current account and the financial account in Chile during the period (1977-1982) using the bivariate autoregressive model VAR, and the study concluded that there is a causal relationship extending from the financial account to the current account, This is the result of the financial liberalization process that Latin American countries witnessed during that period. Fry et al. (1995) also used Granger's causality to examine the causal relationship between the financial account, especially the flows of foreign direct investment, and the current account of 46 developing countries, including Egypt, and the study concluded that there is no specific trend for that causal relationship. In 13 countries, the causal relationship moved from the financial account to the current account, while the causal relationship moved from the current account to the financial account in 8 countries, and in 4 countries, this relationship was in both directions, and no causal relationship was inferred between the two accounts in 21 countries, Among them is Egypt. The study also found that the more liberal the exchange system, the more FDI was independent of the current account.

Wong and Carranza (1999) also tested the causal relationship between current account and capital account in four developing countries (Argentina, Mexico, Philippines and Thailand) using a bivariate autoregressive model (VAR). The study concluded that with the rapid globalization of financial markets at the end of the eighties, capital flows had a negative impact on the current account in those countries, in contrast to the period that preceded that transformation in the financial markets, where the current account was the determinant of changes in the financial account. The study recommended that policies designed to restore external balance must target directly dealing with capital flows, because a package of policies designed to reduce the current account deficit may have an adverse effect if it stimulates capital flows.

The study of Bosworth and Collins (1999) used cross-sectional time data for 58 developing countries during the period (1979-1995) to examine the causal relationship between capital flows and the current account. The current account, by stimulating investment rather than increasing consumption.

In the study of Lau and Fu (2011) that aimed at empirical examination using Granger causality of panel data of the interrelationship between the current account and the components of the financial account in the four Asian countries

(Indonesia, Korea, the Philippines and Thailand) affected by the financial crisis in Asia. The study concluded that achieving a surplus in financial capital works to widen the deficit in the current account in the four countries. As for the impact of the components of the financial account on the current account, the impact of portfolio flows is similar to the overall effect of the financial capital account, while foreign direct investment flows had an impact Positive on the current account. In the same context, the study of Saglam and Yalta (2015) tested the causal relationship between the current account and the different types of foreign capital flows using Granger causality for the time cross-sectional data of 19 developing countries in the period from 1980 to 2009, and the study concluded that there is a causal relationship that extends from investment Foreign direct and portfolio investments to the current account.

Using a bivariate autoregressive model (VAR), Ersoy (2011) indicated that there is a one-way relationship extending from the financial account to the account to the current account in Turkey, where capital flows led to instability in the current account. Similarly, Mastroiannis (2012) study empirically examined this causal relationship in Portugal during the period 1980-2009 using an Augmented VAR model. It has concluded that there is a unidirectional relationship in the long term extending from the financial account to the account to the current account, while the relationship in the short term is bidirectional between the two accounts.

While the study of Garg and Prabheesh (2015) concluded that there is no causal relationship between the two accounts in India during the period (1990-2011) using Wald's developed causality test. In another study on the Indian economy, Goyal and Sharma (2018) used a multivariate autoregressive test of Granger causality between current account, financial account, financial account components, and gross fixed capital formation (GFCF) for quarterly data over the period 2000-2015. The study concluded that there is no causal relationship in any direction between the financial account and the current account, and there is only an indirect causal relationship through some components of the financial account. Where it was found that foreign direct investment affected the GFCF, and the latter had an impact on the current account. The current account also had an impact on debt portfolio inflows, indicating that it was used to finance the current account deficit.

Some other studies examined the causal relationship between the current and financial accounts in both developing and developed countries. In this context, Yan (2005) study tested this relationship in 5 developing countries and 5 developed countries using Granger causality and the developed Wald test, and concluded that the causal relationship extends from the financial account to the current account in developing countries, while that relationship extends from the current account to the financial account In developed countries, Yan also emphasized in another study (Yan (2007)) on the previous

results about the trend of causation between the current account and the financial account for 14 of the economies of emerging and developed countries. The results showed that one or more components of the financial account had an impact on the current account in the developing countries under study, with the exception of Indonesia, which supports the direction of the causal relationship between the current and financial accounts at the overall level, while in the case of industrialized countries the results were less consistent, as The current account was the cause of changes in only one component of the financial account in only 4 of the seven countries.

The study of Yan and Yang (2008) aimed to study the causal relationship between the total capital inflows and the current account, investment and national savings in a group of emerging and advanced economies, and the study concluded that there is a causal relationship of the total capital inflows into the current account in all the five emerging economies under study, while the causal relationship in this trend extended only in one out of the 5 developed countries examined. The study also indicated that the causal relationship between (total) capital flows and saving and investment is more common in emerging economies compared to advanced economies. The study of Yan and Yang (2012) also reconsidered the study of that relationship using panel data for 22 industrialized countries and 23 emerging markets, and they reached the same conclusion that foreign capital flows led to Granger causality in the current account in emerging markets. While Guerin's study (2012) did not indicate specific results regarding the direction of the causal relationship between net capital flows and the current account in 10 developing countries and 10 industrialized countries, by using the method of cointegration, and causality test, the study concluded that net foreign capital flows led to instability In the current account balances of four developing countries, including Egypt, while in the case of industrialized countries, these flows did not lead to an imbalance in the current account except in one country.

In general, previous studies came to the conclusion that there is a causal relationship in the direction of foreign capital flows to the current account in developing countries, and the existence of that causal relationship in the opposite direction in industrialized countries. However, the relationship between foreign capital flows and the current account can also change in emerging markets and developing countries, depending on the characteristics of those countries, economic policies towards foreign capital flows, and the macroeconomic and institutional environment.

What indicates this is that the studies that analyzed the examination of that causal relationship in the case of the Egyptian economy did not reach a specific result, while the existence of a causal relationship between the two accounts was not inferred in the study of Fry et al. (1995) during the period

(1970-1992), The study of Guerin (2102) went to the existence of a causal relationship extending from the financial capital account to the current account during the period (1977-2000). In addition, these studies did not examine the causal relationship between the different types of capital flows and the current account, but only dealt with the relationship between the total foreign capital flows and the current account.

This study reconsiders examining the causal relationship between the total foreign capital flows and the current account in a number of countries in the Middle East (Egypt, Turkey, Tunisia), in addition to examining the causal relationship between the different types of these flows and the current account during a longer time range of data covering the period (1977-2020), which allows access to more accurate results.

3- Data Sources and Econometrics Analysis:

In this section, the Granger causality test will be used to examine the direction of the causal relationship between the current account CA and the capital and financial account KFA, and then in a later step we will examine the direction of the causal relationship between the current account CA and the components of the capital and financial account represented in net foreign direct investment flows (FDI), other net investment OI, net portfolio investment flows PI.

The econometric analysis relied on annual data for the period from 1977 to 2020 for the variables under study represented in the current account balance CA and the balance of the capital and financial account KFA, net foreign direct investment flows FDI, net other investments OI, net portfolio investment flows PI, and it was expressed These variables are expressed as a percentage of GDP. The data were obtained from international financial statistics (IFS).

In order to determine the appropriate method for examining the direction of the causal relationship between the variables under study, it is necessary to first examine the level of stationary for those variables. In the event that the variables under study are stationary at level $I(0)$, it is possible to rely on the traditional causality test proposed by Granger (1969) based on the Unrestricted VAR Model, and in the event that the variables are not It is stationary at its levels, and it is integrated of first degree $I(1)$, then the traditional causality test can be carried out through the co-integration test and the estimation of the Error Correction Model. While if we have a mixture of variables, some of which are stationary at the level $I(0)$ and the other is stable at the first difference $I(1)$, we cannot use the traditional Granger causality, and it is necessary to rely on the Toda-Yamamoto methodology to study causality or what is called the Modified Wald Test Wald Test based on the Restricted VAR Model.

3-1: Unit Root Test

1662 Mostafa Ahmed Radwan^a, **The Causality Relationship Between
The Current Account And The Capital And Financial Account: Evidence
From Middle East Region**

The Augmented Dickey-Fuller unit root test was applied to test the stationarity of the variables under study, in order to ensure that all time series of those variables are stationary at the level. This is a necessary condition for using the unconstrained VAR model. The appropriate lag period was used by the program Eviews9, and by applying that to the variables, the results came as follows in Table (3):

Table 3 Unit root test results

Null Hypothesis: the variable has a unit root						
					At Level	
FDI	PI	OI	KFA	CA		
-3.2979	-3.2472	-3.9967	-3.8304	-	t-	With Constant
0.0216	0.0260	0.0035	0.0054	2.6762	Statistic	
**	**	***	***	*	Prob.	
-3.2544	-2.9883	-3.9486	-3.7928	-	t-	With Constant &
0.0887	0.1504	0.0187	0.0271	2.4677	Statistic	Trend
*	n0	**	**	n0	Prob.	
-1.8672	-3.3041	-3.8312	-3.8314	-	t-	Without Constant &
0.0596	0.0017	0.0003	0.0003	2.6174	Statistic	Trend
*	***	***	***	**	Prob.	

Notes:
a: (*)Significant at the 10%; (**)Significant at the 5%; (***) Significant at the 1% and (no) Not Significant
b: Lag Length based on SIC
c: Probability based on MacKinnon (1996) one-sided p-values.

Source: Prepared by researchers using Eviews 9

The results of the augmented Dickey-Fuller test, as shown in Table (3), indicate that the time series of the variables under study FDI, PI, OI, KFA, CA are integrated in the zero order $I(0)$, meaning that they are stationary at the level. Which is a prerequisite for using the unconstrained VAR model in order to study the Granger's causal relationship between the variables under study.

The causal relationship will be tested initially at the total level between the current account and the capital and financial account, and in a later step the relationship between the current account and the components of the capital and financial account will be examined.

3-2 Examination of the causal relationship between the current account CA and the capital financial account KFA:

To examine the causality between the current account CA and the capital and financial account KFA, the unrestricted VAR model will be estimated as follows:

$$CA_t = \alpha_1 + \sum_{i=1}^m \beta_{1i} CA_{t-i} + \sum_{i=1}^m \beta_{2i} KFA_{t-i} + \varepsilon_{1i} \quad (1)$$

$$KFA_t = \alpha_2 + \sum_{i=1}^m \beta_{3i} CA_{t-i} + \sum_{i=1}^m \beta_{4i} KFA_{t-i} + \varepsilon_{2i} \quad (2)$$

where t is the time period, i is the number of lags, $\varepsilon_{1i}, \varepsilon_{2i}$: is the random error term

Before conducting the causality test, it is necessary to determine the optimal lag length for the VAR model, based on several criteria such as Akaike (AIC), Schwarz (SC), Hannan-Quinn (HQ) as shown in Table(4):

Table (4) Determining the optimal lag length for the VAR model

	HQ	SC	AIC	Lag
Egypt	-6.937143	-6.880765	-6.967841	0
	-	-	-	1
	7.874325**	7.705191**	7.966421*	
	-7.789107	-7.507216	-7.942600	2
	-7.659584	-7.264938	-7.874474	3
	-7.449869	-6.942467	-7.726156	4
-7.225029	-6.604870	-7.562714	5	
Tunisia	-11.9319	-11.3533	-11.8453	0
	-13.5438**	-12.3869	13.54292*	1
	-13.3973	-12.3869*	-13.5024	2
	-13.1745	-11.9871	-13.3866	3
	-12.8138	-11.4551	-13.1345	4
	-12.427	-10.898	-12.8566	5
Turkey	-13.5274**	-14.4496*	-14.6325	0
	-15.3549	-15.7652	16.72948*	1
	-15.1888	-15.7652	-16.6795	2
	-14.9362	-15.2564	-16.5364	3
	-14.5272	-14.5792	-16.2249	4
	-14.0888	-13.8702	-15.8817	5

** indicates lag order selected by the criterion each test

at 5% level
 * indicates lag order selected by the criterion each test
 at 10% level
 Endogenous variables: CA KFA
 Exogenous variables: C

Source: Prepared by the researchers based on the outputs of the Eviews 9

We conclude from previous table that the optimal lag length, corresponding to the smallest value of the criteria HQ, SC, IC, is one .

Table (5) indicates the results of the causal relationship between the current account CA and the capital and financial account KFA using the VAR model in the two numerical equations (1,2)

**Table (5) Granger causal results (Wald test)
Between the current account and the capital and financial account**

Country	Lagged Var	Dependent variables Values (prob.)Chi-square	
		CA	KFA
Egypt	CA	-----	3.379479** (0.0460)
	KFA	0.191489 (0.6617)	-----
Tunisia	CA	-----	3.56432** (0.03675)
	KFA	0.78902 (0.3256)	-----
Turkey	CA	-----	4.592334*** (0.001)
	KFA	0.67231 0.7863	-----

** significant at 5%

*** significant at 1%

Source: Prepared by the researchers based on the outputs of the Eviews 9

The results of Wald's test indicate that the null hypothesis that the capital and financial account KFA does not cause the current account to CA was rejected at a significant level of 1%, 5%, that is, there is a causal relationship of

1665 Mostafa Ahmed Radwan^a, **The Causality Relationship Between
The Current Account And The Capital And Financial Account: Evidence
From Middle East Region**

the trend from the capital and financial account to the current account, this confirms the direction of many empirical studies in determining the direction of the causal relationship between the two accounts in developing countries.

3-3 Examining the causality relationship between the current account and the components of the capital and financial account:

The unrestricted VAR model will be used to estimate the causal relationship between the current account CA and the components of the capital and financial account represented by net foreign direct investment (FDI), net portfolio investment (OI), and net other investment (PI), as shown by the following equations:

$$CA_t = \alpha_3 + \sum_{i=1}^m \beta_{5i} CA_{t-i} + \sum_{i=1}^m \beta_{6i} FDI_{t-i} + \sum_{i=1}^m \beta_{7i} PI_{t-i} + \sum_{i=1}^m \beta_{8i} OI_{t-i} + \varepsilon_{3i} \quad (3)$$

$$FDI_t = \alpha_4 + \sum_{i=1}^m \beta_{9i} CA_{t-i} + \sum_{i=1}^m \beta_{10i} FDI_{t-i} + \sum_{i=1}^m \beta_{11i} PI_{t-i} + \sum_{i=1}^m \beta_{12i} OI_{t-i} + \varepsilon_{4i} \quad (4)$$

$$OI_t = \alpha_5 + \sum_{i=1}^m \beta_{13i} CA_{t-i} + \sum_{i=1}^m \beta_{14i} FDI_{t-i} + \sum_{i=1}^m \beta_{15i} PI_{t-i} + \sum_{i=1}^m \beta_{16i} OI_{t-i} + \varepsilon_{5i} \quad (5)$$

$$PI_t = \alpha_6 + \sum_{i=1}^m \beta_{17i} CA_{t-i} + \sum_{i=1}^m \beta_{18i} FDI_{t-i} + \sum_{i=1}^m \beta_{19i} PI_{t-i} + \sum_{i=1}^m \beta_{20i} OI_{t-i} + \varepsilon_{6i} \quad (6)$$

Before conducting the causality test, it is necessary to determine the optimal lag length for the VAR model, based on several criteria such as Akaike (AIC), Schwarz (SC), Hannan-Quinn (HQ) as shown in Table (6):

Table (6) Determining the optimal lag length for the VAR model

	HQ	SC	AIC	Lag
Egypt	-	-	-	0
	16.70833	16.59557	16.76973	
	-	-	-	1
	18.19150 **	17.62772 **	18.49848 **	
	-	-	-	2
	17.82183	16.80702	18.37440	
	-	-	-	3
	17.13848	15.67265	17.93664	
-	-	-	4	
16.81320	14.89634	17.85695		
-	-	-	5	

	16.55761	14.18973	17.84695	
Tunisia	-14.7033	-14.6041	-14.7574	0
	-	-	-	1
	16.0089**	15.5124**	16.2787**	
	-15.6832	-14.7902	-16.1695	2
	-15.0819	-13.7919	-15.7842	3
	-14.7956	-13.1088	-15.7141	4
Turkey	-14.5707	-12.487	-15.7053	5
	-24.06	-23.8976	-24.1484	0
	-	-	-	1
	26.1964**	25.3839**	26.6378**	
	-25.6634	-24.2021	-26.4591	2
	-24.6794	-22.5686	-25.8288	3
	-24.211	-21.4507	-25.714	4
	-23.843	-20.4332	-25.6996	5
	** indicates lag order selected by the criterion each test at 5% level Endogenous variables: CA FDI OI PI Exogenous variables: C			

Source: Prepared by the researchers based on the outputs of the Eviews 9.

We conclude from table(6) that the optimal lag length, corresponding to the smallest value of the criteria HQ, SC, IC, is one .

Using the VAR model in equations (3, 4, 5, 6) it is possible to test the causal relationship between the current account (CA) and the components of the capital and financial account represented in net foreign direct investment (FDI), net investment portfolio OI, and net other investments PI, as shown in Table (7).

Table (7) Granger causal results (Wald test) Between the current account and the components of the capital and financial account

Country	Lagged Var	Dependent variables Values (prob.)Chi-square			
		OI	PI	FDI	CA
Egypt	CA	0.303691 (0.5816)	0.073876 (0.7858)	1.240231 (0.2654)	-----
	FDI	7.38E-05 (0.9931)	3.597246 (0.0579)	-----	1.16E-05 (0.9973)
		0.223183		0.234231	0.000285

1667 Mostafa Ahmed Radwan^a, The Causality Relationship Between The Current Account And The Capital And Financial Account: Evidence From Middle East Region

	PI	(0.6366)	-----	(0.6284)	(0.9865)
	OI	-----	0.961994 (0.3267)	0.321729 (0.5706)	4.622858** (0.0315)
Tunisia	CA	0.54057 (1.035248)	0.131499 (1.398724)	2.207611 (0.472412)	-----
	FDI	2.852531 (0.122084)	0.169915 (0.36146)	-----	0.698489 (0.26753)
	PI	0.000405 (0.329491)	-----	0.332608 (0.209886)	0.31692 (0.212624)
	OI	-----	0.234862 (1.19826)	0.702256 (0.68607)	3.8934** (0.0456)
Turkey	CA	0.750588 (1.70068)	0.04471 (5.03541)	0.183794 (3.72689)	-----
	FDI	0.0263 (8.67208)	0.108114 (6.41853)	-----	6.49876** (0.0276)
	PI	1.49856 (0.76549)	-----	0.345672 (0.98352)	1.87493 (0.65382)
	OI	-----	0.639053 (0.823284)	0.213724 (1.437912)	2.17591 (0.07543)

** significant at 5%

Source: Prepared by the researchers based on the outputs of the Eviews 9

Wald's test results indicate that there is a causal relationship from other investments to the current account in Egypt and Tunisia, while that causal relationship is from foreign direct investment to the current account in Turkey. Which may explain that this type of capital flows may be a major source of instability in the current account, as the widening of the current account deficit is one of the undesirable macroeconomic effects of large flows of capital to debtor countries as a result of the accompanying rise in the level of consumption and consequently aggregate demand. Also, these flows of debt, especially medium and short-term, especially in recent years, have led to support and increase in international reserves in some of those countries, such as the Egyptian economy, which led to keeping the value of the Egyptian pound above its equilibrium level, which contributed to reducing competitiveness and thus deteriorating current account.

In addition, the accumulation and increase in the volume of external debts, especially short-term loans and high-cost banking facilities, led to a significant rise in interest payments, which directly contributed to the deficit in the

investment income balance in most years of the study period, which led to instability in current account.

These results indicate the need for policies aimed at attracting and managing foreign capital to reduce the current account deficit by rationalizing external borrowing and trying to obtain long-term financing opportunities on concessional terms, and working on a good financial system in order to allocate scarce resources efficiently, through Directing the bulk of external financing for development projects that support production capacity and increase exports.

4- Conclusion and recommendations:

The widening of the deficit witnessed by the current account balances of many developing countries in the early nineties of the twentieth century coincided with the sharp rise in capital flows to those countries. Therefore, the stability of the capital and financial account has become one of the basic requirements for the stability of the balance of payments. Prior to the liberalization of financial markets, macroeconomic policies focused mainly on how to achieve stability in the current account in countries facing difficulties in the balance of payments, and access to international capital markets was considered a means to finance the current account deficit, meaning that foreign capital flows were considered A source of financing the deficit in the current account, and then the causal relationship extends from the current account to the capital and financial account.

In general, previous studies came to the conclusion that there is a causal relationship in the direction of foreign capital flows to the current account in developing countries, while the presence of causality in the opposite direction is observed in developed countries. However, the relationship between foreign capital flows and the current account can also change in emerging markets and developing countries, depending on the characteristics of those countries' economies, policies towards foreign capital flows, and the macroeconomic and institutional environment.

What confirms this is that the studies that analyzed the examination of that causal relationship in the case of the Egyptian economy did not settle on a specific result, in addition to that those studies did not examine the causal relationship between the different types of capital flows and the current account in the countries under study, but only dealt with the relationship between Total foreign capital inflows and current account.

In this study, the causal relationship between the total foreign capital flows and the current account in a number of Middle Eastern countries (Egypt, Tunisia, Turkey) was re-examined, in addition to examining the causal relationship between the different types of these flows and the current account during a longer time range of data covering the period (1977-2020), allowing for more accurate results.

Relying on the Causality Granger Test based on the Unrestricted Vector Autoregressive Model (VAR), the study concluded that there is a causal relationship extending from the capital and financial account to the current account in the selected countries, and specifically that causal relationship trended from the item of other investments to the current account in Egypt and Tunisia, while the causality trends from foreign investment to the current account in Turkey. These results indicate the need for policies aimed at attracting and managing foreign capital to take into consideration working to reduce the current account deficit through rationalizing external borrowing and trying to obtain opportunities for financing on concessional terms, and working on the existence of a sound financial system in order to allocate scarce resources efficiently. By directing the bulk of external financing for development projects that support production capacity and increase exports.

References

1. Bayraktar-Saglam, B., & Yalta, A. Y. (2015). Current account imbalances and capital flows: further evidence from emerging markets. *Global Journal of Emerging Market Economies*, 7(2), 201-213.
2. Bosworth, B. P., Collins, S. M., & Reinhart, C. M. (1999). Capital flows to developing economies: implications for saving and investment. *Brookings papers on economic activity*, 1999(1), 143-180.
3. Bustelo, P. (2000). Novelties of financial crisis in the 1990s and the search for new indicators. *Emerging Markets Review*, 1(3), 229-251.
4. Calvo, G., Leiderman, L., & Reinhart, C.M. (2007). Inflows of capital to developing countries in the 1990s. *Journal of Economic Perspectives*, 10(2), 123-139.
5. Ersoy, I. (2011). The causal relationship between the financial account and the current account: The case of Turkey. *International Research Journal of Finance and Economics*, 75(1), 188-193.
6. Fry, M., Claessens, S., Burridge, P., & Blanchet, M. (1995). Foreign direct investment, other capital flows and current account deficits: What causes what? World Bank Policy Research Working Paper No. 1527, World Bank, Washington, DC.
7. Garg, B., & Prabheesh, K. P. (2015). Causal relationships between the capital account and the current account: an empirical investigation from India. *Applied Economics Letters*, 22(6), 446-450.
8. Goyal, A., & Sharma, V. (2017). Estimating the relationship between the current account, the capital account and investment for India. *Indira Gandhi Institute of Development Research, Mumbai*.
9. Lau, E., & Fu, N. (2011). Financial and current account interrelationship: An empirical test. *Journal of Applied Economic Sciences*, 6(15), 34-42.
10. Mastroiannis, A. (2012). Causality Relationships in the Structure of Portugal's Balance of International Payments. *International Journal of Business and Social Science*, 3(15).

11. Montiel, P., & Reinhart, C. M. (1999). Do capital controls and macroeconomic policies influence the volume and composition of capital flows? Evidence from the 1990s. *Journal of international money and finance*, 18(4), 619-635
12. Morande, F. G. (1988). Domestic currency appreciation and foreign capital inflows: What comes first?(Chile, 1977–1982). *Journal of International Money and Finance*, 7(4), 447-466.
13. Obstfeld, M., & Rogoff, K. (1994). The Intertemporal Approach to the Capital Account. NBER Working Paper, (4893).
14. Sarisoy-Guerin, Selen. (2012). The relationship between capital flows and current account: Volatility and causality. Working Paper No. 36, LUISS, Rome.
15. Wong, C., & Carranza, H. (1999). Policy responses to external imbalances in emerging market economies: Further empirical results. *IMF Staff Papers*, 46(2), 225–238.
16. Yan, H. (2007). Does capital mobility finance or cause a current account imbalance? *Quarterly Review of Economics and Finance*, 47(1), 1–25.
17. Yan, H. (2005). Causal relationship between the current account and financial account. *International Advances in Economic Research*, 11(2), 149–162.
18. Yan, H., & Yang, C. (2008). Foreign capital inflows and the current account imbalance: Which causality direction? *Journal of Economic Integration*, 23(2), 434–461.