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Does the Exchange Rate Matter on Import -Export in Cote D'Ivoire?

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Abstract This article examines exchange rate matter on exports and imports activities in Cote d'Ivoire and analyze the link between CFA Franc zones (West African Economic Monetary Union (WAEMU), consisting of 8 West African countries with French Treasury. Study used recent annually data from 1995- 2017. Vector Auto Regression (VAR) consisting on imports, export and Exchange rate is considered to check the impact of exchange rate on exports and imports in cote d'Ivoire. Augmented Dicker Fuller (ADF) test is used to test the stationary of the variables. Lag selection criterion (AIC) advised us to take two lags in VAR Model to be optimum. The VAR model result shows that exchange rate are positive and insignificant on exports at both lags EX(-1) and EX(-2). However The impact of exchange rate on import shows different at 2 lags; At first lags, exchange rate EX(-1) is positive and insignificant but negative and insignificant at second lags EX(-2). Our findings shows that exchange rate does not matter exports and imports activities in Cote d'Ivoire since the t-statistic regarding the exchange rate is less than 2 at both lags Ex(-1) and Ex(-2) for exports and imports.

Keywords Export import, Exchange rate, VAR, Cote d'ivoire

1. Introduction

The foreign exchange rate policies is an important macroeconomic indicators, in open economies. All decision of investment is referred to the foreign exchange rate since Investors need to know how their investment will change with changes in their currency.

Foreign exchange rate is the key incentive for the country to gain in trade. The exchange of goods between countries is predicted from the economists concept of the doctrine of comparative advantage. Country with comparative advantage export good and import products, in which it has disadvantage. Trade transactions require the conversion of currency to another currency. Thus, nowsdays, All countries are fighting to maintain their foreign exchange rate stable and efficiency in Which Cote d'ivoire is not an exception. Since The performance of exchange rate allows the reduction of the trade deficit and enhancing country welfare.

The purpose of this research is to determine the impact of exchange rate on imports and export in Cote d'Ivoire. The Aim of this research is to evidence an empirical study, which will examine the matter of exchange rate on import and export activities.

Geographically, Cote d'Ivoire is good located which enabled the country to be the natural gateway in West Africa Sub-region. It is also the most prosperous nations because of strong Agricultural products export such as cocoa, cotton and the inward flows of foreign Direct Investment. It represents the regional economic motor of West Africa, and accounts for 40 percent of the economic activity in the Monetary Union (WAEMU), which consisted of 8 countries. The country is also engage in the regional integration ECOWAS and world trade (WTO) in order to promote trade, enhance economic growth development. Evidencing the effects of foreign exchange rate on import and export in Cote d'ivoire seems a good opportunity. Since the country adhered an union Currency consisting of 14 countries, which currency CFA is pegged in Euro. In fact, many African Economist Scholars started to analyze the exchange rate CFA currency matters on West African Economic Monetary Union (WAEMU), which is pegged in Euro.

Thus, study the effect of exchange rate CFA on imports –export will enable the community to set up appropriate monetary policies. This will enhance the economic performance of the difference countries sharing the Cfa currency.

Most of studies investigated the effect of foreign exchange rate on the foreign trade balance. However in our research the effect of exchange rate on imports and exports will be analysed separately. We will apply Vector Auto regressive distributed lag) modelling approach., which is an appropriate

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model and assure properly the stationary problem. The model was popularized in econometrics by sims (1980) as natural generalization of univariate autoregressive model.

This article is to empirically analyze the association effect of exchange rate; exports and imports activities for twenty two years over the period 1995 -2017. The paper is presented in the following manner: The review of related literatures in section two after the introduction. Section three highlights the methodology applied which include the Vector Autogressive distributed lag (ARDL) modeling approach. The results and analysis will be done in fourth section while discussion is completed by conclusions concerning the issues of the country.

2. Literature Review

Many empirical researches exist, which talked about the effect of exchange rate on export and imports activities However this paper has focused on the association among exchange rates, export, and import rather than the effect of exchange rate.. But why make it in Cote d'ivoire this research? As we know Cote d'ivoire share with seven countries in West Africa the franc of the French colonies of Africa, which became African Financial Community. The eight West African countries are in common union currency called FCFA (Franc de la communautes d'Afrique de L'ouest), which is linked with Euro through a fixed regime system. In fact French Treasury are managed the 50 percent deposit of foreign reserve of the eight countries. The 50% deposit is located in common account called Operation account.

According to the monetary authority, the objective of 50% deposit is to guarantee and assure the convertibility CFA currency. However nowadays, many African intellectuals urge to change the system. Recently Matteo Salvini, in January 22, 2019 mentioned " France is one who prints the currency of 14 Africans countries, it prevents the development and contributes to the departure of refugees. If Europe wants at this moment to have a little courage, it must have the strength to face the theme of the decolonization of Africa.

Since the case of cote d'Ivoire is special ad adhere in fixed regime system, we find useful to study the association effect of exchange rate; export and import activities in cote d'Ivoire.. In our study, we will not include the inflation effect of the time we use. Our research will use the nominal exchange rate and estimate its effects on import-export in Cote d'Ivoire. We find divers researches discussed about the relationship between trade and exchange rate and finding have evidenced mixed results. Our study is to evidence the association effect of exchange rate; exports and imports activities.

Specific objective will give point of view regarding the link between BCEAO (Banque centrale des etats de l'Afrique de l'ouest) and French Treasury.

Since the creation of Euro on december 2001, there has been not any transfer of the eight countries deposit from French Treasury BCE (bank central European). Comparison of Cote d'ivoire economy monetary system with its neighbor Nigeria, Ghana will be made.

In fact, a few years ago, Ghana was cited as a country without a stable currency and an inflationary economy. This was the good example of the bad example, which served to justify the virtue of the staking of the CFA franc to the euro. But Since 2006 GHANA has become the second largest economy of ECOWAS, after Nigeria where the GDP in 2017 was 375 billion US dollars; follow by Ghana: US $ 47.4 billion; and then Cote d'Ivoire: US $ 40.4 billion.

Recently Many Intellectual urge to change the FCFA system which is pegged to euro. According to them the FCFA is overevalued which hampers exports activities and makes imports cheaper. By trying to answer this assertion, we will evidence the effect of exchange rate on import and export activities in cote d'ivoire. As we know International trade is a growth vector for nations that devote the most attention. The gain is coming from the difference of exchange rate and price of the goods.

Studying exchange rate; export and imports activities in cote d'ivoire will allows policy makers to decide which decision in term of monetary policy to help cote d'Ivoire to get out the cercle of under-developed countries. Although many empirical researches exist, which talked about this subject, Cote d'ivoire case is particular since its currency is permanent pegged to Euro. In Cote d'ivoire exchange rate movement due to fixed monetary regime pass through goods and service trade price, as explained by Roberto (2011). He explained that exchange movements due to policies can be passed through to goods and services trade price. it is further argued that when 1% fluctuation of 1% fluctuation in the exchange rate results in fluctuation of 1% change in the import price, then there is complete exchange rate pass through.

Morrison and Labonte in 2013 explained that subsequent to depreciation of exchange rate of importer's currency raise the cost of imports and therefore imports activities are going to be reduce. The exporter might reduce its local currency to stabilize the price of importing country. Similar to Morison labonte finding through De-Paoli (2009) has explained there is a relationship between imports-exports and exchange rate, in which a high exchange rate of importer currency affected importing country and exporter usually experience a very erratic and elastic demand curve.

Mahmood ehsanellah and Ahamed (2011) examined whether fluctuation in exchange rate affects the macro-economic variables. The Authors used a monthly data covering the period 1975 to 2011 years. The method used was Generalized Autoregressive condition heteroscedasticity (GARCH) method for their analysis. Their findings evidenced a positive impact of exchange rate on macro-economic variables such as import and export.

Another Pakistanis authors Muhammad (2014) was studied effect exchange rate instability on trade balance, import export and GDP. His method used was multicolinearity detection, granger causality test. His result found that depreciation of exchange rate has positive effects on exports but negative effect on import activities.

The case of pork and swine exports, Fabiosa (2002) in Canada, found that the level of the real exchange rate has significant positive effect on pork exports, with more being exported when there is a depreciation of the domestic currency. However, as pointed out by Veeramani (2008), that Indian exports grew rapidly after 2000 years despite real exchange rate appreciation which does not necessarily imply that real exchange rate appreciation had no adverse impact on exports. The growth rate of exports might have been higher without real exchange rate appreciation. Some theory and empirical evidence also exhibits ambiguity as to the effect of the exchange rate on exports and imports. Junz and Rhomberg in 1973 and Wilson and Takacs in 1979 found that devaluation of developed countries currency with fixed exchange rate was increased exports. Bahmani-Oskooee and Kara (2003) evidenced the similar results in flexible regime; export increase with depreciation of the currency.

Not all scholars, however, equally agree with the above-mentioned optimistic views. In contrast, Some economist scholars such as Ethiers (1973), Hooper, and Kohlhagen (1978), Kumar and Dhawan (1991), Gagnon (1993), Broll (1994), Caporale and Dorodioon (1994), Wolf (1995), Dell Ariccia (1998), Rose (2000), and Vergil (2002) evidenced that exchange volatility reduces international trade gain. As illustration, the empirical findings made by Binati and Sohrabi in 2009 regarding the impact of Turkish lira exchange rate on import and export have found that a depreciation of Turkish lira affect negatively imports-exports activities. In contrast, Domaç (1997), who has analyzed the issue for Turkish economy for a period 1960-1990, has found a positive impact of unanticipated devaluations on the real economic activity.

Some previous findings made by Bernardina (2004) which has studied the effects of the exchange rate and the world income on Russia non-oil export. He used an error Correction Model over the 1994- 2001.His result was that there was a robust and negative long run cointegration relationship between real exchange rate and Russian non oil exports.

Regarding the effect of exchange rate on export and imports in emerging countries, Elif Guneren Genic and Oksan Kibristic Artar (2014) found Exchange, exports and import in long run are cointegrated by using methodology of the cointegration Panel model. While Vinh Nguyee thi and Duong Trinh thi thy (2018) evidenced the impact of exchange rate volatility on exports in Vietnan. They used a demand function of export and the methodology of Autoregressive Distributed Lag (ARDL) bounds testing for the analysis of the effects of effective exchange rate volatility on exports activities. Their result showed that exchange rate volatility has negative and significant effects on export activities in the long run.

Jarita (2008) studied the impoact of exchange rate shocks on prices of imports and exports in Malaysia. His studied has been extended between 1999 – 2006. His result through Vector Error correction model, impulse Response Function and Variance analysis, he found that exchange shocks affect significantly the fluctuation of import prices in Malaysia.

While Others studies made by Lemmer and Vancauteren in 2009, using data from 1978 -2007 found the depreciation of Euro at 10% over the USD dollar reduce the Dutch exports at 1,8 % but does not affect Ducth Imports.

In 2011 Ibikunle and Akhanolu studied exchange rate volatility impact on trade flow in Nigeria. Using Generalized Autogressive condition Heteroscedasticity (GARCH) for making their analysis. Their finding revealed that there is an inverse and statistical insignificant relationship between aggregate trade and exchange volatility. The period of the study was 1970 to 2009, due to the availability of the accurate data. Still in Nigeria another searcher Moshen in 2013 made a research regarding the effect of exchange rate on imports, exports, product price and other macroeconomics. His study extended from 1960 to 2012. The Vector Autoregression model, Cointegration test and Impulse Response Function analysis revealed exchange rate has no effect on macroeconomic variable.

In addition to different results studies from Nigeria, searcher Khalil ahmed K Qasim M and Chami MI (2017) from Pakistan evidenced the impact of exchange rate on Pakistan export activities. Autogressive Distribution Lag (ARDL) model was used to check relationship between the variables. Results shows negative and insignificant effects on exports activities in Pakistan. This mean Exchange rate does not affect Pakistan export activities.

In 2014 Authors Godfrey and Cosmas from Tanzania investigated the shocks of exchange rates on exports, imports and national ouput from 1990 to 2011. They adopted Vector Error Correction model analysis and Time Series Simulation. Their findings revealed a lower long run impact on export and import. Odili (2015) also depicted the short run and long run effect of real exchange rate volatility and Level economic growth on international trade in Tanzania. He used Vector Error Correction model and Times serie covering data from 1971 to 2012. His results showed that in both short and long run, export and imports were influenced by real exchange rate, term of trade and change in exchange rate policies. Furthermore, his findings revealed that exchange rate depressed import and export at long run as well.

In contrast to all mentioned above findings some research result find no certain evidence for the relationship between exchange rate volatility and trade volume. Thus Moccero and Winograd in 2006 evidence the impact of exchange rate volatility by examining The intra and extra regional export in Brasil with the rest of the world.

They conclude that the reduction of volatility of exchange affect positively export activities in Brazil. But there is a

detrimental effect on the rest of the world export activities. This conclusion depict the ambiguity view of the role of exchange rate volatility on trade volume.

For exemple in Romania, a case study in 2010 made by Ghiba was analyzed the link between exchange rate and international trade from 2005 to 2010. He showed that depreciation of Romanian Leu had a small effect of the export increase and the relation with imports were extremely weak. Similar study in Romania made by Carmen and Nicolas in 2011 have studied impact of exchange rate on exports from 2nd quarter 2003 to 1st quarter 2011. The model used was Vector Autogressive and impulse response function. They discovered that a shock in exchange rate has significant effect on export.

There are also some case studies on the subject in Asia, where Fang et Al in 2006 made a study regarding the effect of exchange rate depreciation on exports for a group of Asian countries (Malaysia, Thailand, Indonesia, Japan, Philippines, Singapore, Republic of Korea and Chinese Taipei). The studies have revealed a weakest effect on exchange on export activities and it varies across countries.

Some studies in Europe and America made by Bahamni Oskooe and Koyyryalova in 2008 investigated on the impact of exchange rate volatility on international trade between USA and UK. The result of finding from Cointegration and error correction technique results showed that volatility of the real bilateral dollar- pound rates between USA and UK has a short run impact on the import of 109 industries and significant effect of exchange rate for 99 industries export activities. However in the long run it has been revealed that the number of exchange rate impact was reduced for import and export activities.

In sum, the existing bodies of literature on this topic are still inconclusive and no close and a further investigation needed so that to warrant the previous study. This paper has focused on the association among exchange rates, export, and import rather than the effect of exchange rate.

3. Research Methodology

The General objective is to analyse the relationship between Import, export and Exchange rate in Cote d'ivoire.

- Specific objective will analyze the link between CFA Franc zones (West African Economic Monetary Union (WAEMU), which consisted of 8 countries with French Treasury.

3.1. Vector Auto Regression Model (VAR)

We are identified different studies regarding our topics, which gives different effects of exchange rate on import and export activities. Our study will used Vector Autogressive model to analyse the relationship between Import, export and Exchange rate in Cote d'ivoire. Since we know that VAR model will allows us to see the effect of change in a variable would have upon in future values of the variables. It also allows to examines the link between our three variables and their lags. (export, imports and exchange rate)

Three sets of statistics will be estimated with VAR model: block significance test/causality, impulse response and variance decomposition. (agung, 2009).

3.2. Hypothesis to be Tested

The research hypotheses are:

H_o: Exchange rate does not influence imports activities in Cote d'Ivoire

H_1: Exchange rate influences import activities in Cote d'Ivoire

H_o: Exchange rate does not influence exports activities in Cote D'Ivoire

H_1: Exchange rate influences export activities in Cote d'Ivoire

3.3. Model Specification

Our equation can be written as follow:

$$M_t = \beta_{10} + \beta_{11}M_{t-1} + \beta_{12}M_{t-2} + \lambda_{11}X_{t-1} + \lambda_{12}X_{t-2} + \delta_{11}Ex_{t-1} + \delta_{12}Ex_{t-2} + U_{1t}$$

$$X_t = \beta_{20} + \beta_{21}M_{t-1} + \beta_{22}M_{t-2} + \lambda_{21}X_{t-1} + \lambda_{22}X_{t-2} + \delta_{21}Ex_{t-1} + \delta_{22}Ex_{1-2} + U_{2t}$$

$$Ex_t = \beta_{30} + \beta_{31}M_{t-1} + \beta_{32}M_{t-2} + \lambda_{31}X_{t-1} + \lambda_{32}X_{t-2} + \delta_{31}Ex_{t-1} + \delta_{32}Ex_{t-2} + U_{3t}$$

As matrix, it can be written as follow:

$$\begin{bmatrix} M_t \\ X_t \\ Ex_t \end{bmatrix} = \begin{bmatrix} \beta_{10} \\ \beta_{20} \\ \beta_{30} \end{bmatrix} + \begin{bmatrix} \beta_{11}\lambda_{11}\delta_{11} \\ \beta_{21}\lambda_{21}\delta_{21} \\ \beta_{31}\lambda_{31}\delta_{31} \end{bmatrix} \begin{bmatrix} M_{t-1} \\ X_{t-1} \\ Ex_{t-1} \end{bmatrix} + \begin{bmatrix} \beta_{12}\lambda_{12}\delta_{12} \\ \beta_{22}\lambda_{22}\delta_{22} \\ \beta_{32}\lambda_{32}\delta_{32} \end{bmatrix} \begin{bmatrix} M_{t-2} \\ X_{t-2} \\ Ex_{t-2} \end{bmatrix} + \begin{bmatrix} U_{1t} \\ U_{21} \\ U_{3t} \end{bmatrix}$$

Where $Mt_{, Xt}$ and Ex_t represent Import, Export and Exchange rate respectively.

3.4. Stationary Test

We firstly subject our three variables to Unit root test. We will use the Augmented Dickey Fuller test (ADF) to study the stationary of our three variables data. The test is also Conducted by adding Lagged values of the dependent variable.

The Test of stationary is to estimate the regression as follows:

$\Delta Y_t = \beta_1 + \beta_{2t} + \delta y_{t-1} + \Sigma\delta_i \Delta y_{t-i} + U_t$, where U_t is white noise error term and where $\Delta y_{t-1} = y_{t-1} - y_{t-2}$, and $\Delta y_{t-2} = y_{t-2} - y_{t-3}$

3.5. Impulse Response

Impulse response Function will be used to check the dynamic interaction between variables. And Although our model cointegration relations have been assumed, stability of our model should be depicted. In so doing, formal checking of long and short run parameter constancy use the single –equation CUSUM-type tests introducted by Brown et al (1975).

Based on recursive residuals, CUSUM and CUSUMQ represent the cumulative sum and the cumulative sum of squares. This option plots the cumulative sum together with the 5% critical lines. The test finds parameter instability if the cumulative sum goes outside the area between the two critical lines. Generally, and in the majority terms, they are inside the uncritical region and, therefore, the null hypothesis of the parameter constancy cannot be rejected as long as both CUSUM and CUSUMQ statistics.

4. Discussion of the Results

4.1. Lag Order Selection (Lag) Length)

After establishing the VAR model, lags selection criterion allows us to choose 2, in order to give an accuracy analysis. According to the Akaike Information Criterion (AIC) selections, we found that when we chose lag of order equal to 2, the AIC of the whole model is the lowest.

Table 4.1. Lags selection criterion

VAR Lag Order Selection Criteria Endogenous variables: M X EX Exogenous variables: C Date: 07/11/19 Time: 19:21 Sample: 1995 2017						
Included observations: 19						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-730.2878	NA	6.69e+29	77.18819	77.33731	77.21343
1	-701.8922	44.83523	8.84e+28	75.14655	75.74303	75.24749
2	-682.5959	24.37419	3.27e+28	70.06273*	71.10658*	74.23939
3	-649.6953	31.16903*	3.37e+27	71.54687	73.03809	71.79925
4	-634.1752	9.802157	2.99e+27*	70.86055	72.79913	71.18864*

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

4.2. Stationnarity Test

Table 4.2. Augmented Dickey Fuller (ADF)

Variables	Probability At level	Probability At first difference
IMPORTS	**0.7631**	**0.0086**
EXPORTS	**0.8231**	**0.0001**
EXCHANGE RATES	**0.9**	**0.0181**

Probability Values only reported

Augmented Dickey Fuller (ADF) test at level and first difference is used to test the stationarity of each variables in our model. AKaike information criterion selection has allows us to choose 2 as lags of our model. At level the imports, Exports and Exchange variables are not stationary since the P- value is greater than 0.05. However at first difference we found that P-value respond to the criterion where all variables are stationary at first difference; P-value is less than 0.05.

4.3. Vector Autogression Estimate

Vector Autoregression Estimates
Date: 07/12/19 Time: 01:02
Sample (adjusted): 1997 2017
Included observations: 21 after adjustments
Standard errors in () & t-statistics in [ ]

	M	X	EX
M(-1)	0.626848	0.502237	-6.69E-05
	(0.18703)	(0.17529)	(3.9E-05)
	[3.35161]	**[2.86517]**	**[-1.73261]**
M(-2)	-0.988238	-0.402949	0.000113
	(0.24298)	(0.22773)	(5.0E-05)
	[-4.06714]	**[-1.76940]**	**[2.25554]**
X(-1)	0.825120	0.628034	-0.000108
	(0.25654)	(0.24044)	(5.3E-05)
	[3.21635]	**[2.61204]**	**[-2.04054]**
X(-2)	0.464672	0.148700	7.83E-05
	(0.21673)	(0.20313)	(4.5E-05)
	[2.14399]	**[0.73204]**	**[1.74942]**
EX(-1)	667.2568	1397.592	-0.417474
	(1042.72)	(977.275)	(0.21537)
	[0.63992]	**[1.43009]**	**[-1.93836]**
EX(-2)	-51754.47	44252.27	7.302160
	(38867.5)	(36428.1)	(8.02812)
	[-1.33156]	**[1.21478]**	**[0.90957]**
C	3810092.	-3665742.	-580.0047
	(3643050)	(3414405)	(752.476)
	[1.04585]	[-1.07361]	[-0.77080]
R-squared	0.953399	0.964624	0.500429
Adj. R-squared	0.933427	0.949463	0.286327
Sum sq. resids	8.86E+12	7.79E+12	378122.8
S.E. equation	795655.8	745718.7	164.3434
F-statistic	47.73672	63.62496	2.337340
Log likelihood	-310.8657	-309.5045	-132.6815
Akaike AIC	30.27292	30.14329	13.30300
Schwarz SC	30.62110	30.49146	13.65117
Mean dependent	6293691.	8292497.	154.9524
S.D. dependent	3083720.	3317190.	194.5372
Determinant resid covariance (dof adj.)		8.23E+27	
Determinant resid covariance		2.44E+27	
Log likelihood		-751.5324	
Akaike information criterion		**70.57451**	
Schwarz criterion		**71.61903**	

Vector Autogression Estimate is to test the significance of the variable. Based on t-statistic for analyzing our model variables, We found that import coefficient has positive and significant effects on export at both lags.

While adjusted partial of imports at first and second lags has differents effects on exchange rate: At first lags Adjusted partial imports has negative and insignificant effect on exchange, while M at second lag, we observed a positive and significant effects.

Export (X) has positive and significant effect on import at first lag (Adjusted partial import). But at second lags, export effects are negative and significant. Regarding the effects of export on exchange rate, we found that although, the coefficients of export at both lags are positive but the t-statistic is less than 2. This mean the effects of export on exchange rate is insignificant.

With respect to exchange rate effects on exports and imports, the study evidenced the following results. Exchange rate effects are positive and insignificant on exports at both lags EX(-1) and EX(-2). Howver the influence of exchange rate on import presented different influnces. At first lags, exchange rate EX(-1) is positive and insignificant but negative and insignificant at second lags.

Our study showed that Exchange rate does not affected import and export activities in cote d'ivoire like the recent finding evidenced by oloyede Oluyemi and Isaac Essi in Nigeria on the theme of the effect of exchange rate on imports and exports in Nigeria.

We judged useful to analyse the same topic in cote d'Ivoire because cote D'ivoire used another currency which is union currency and different from Nigeria.

Testing the joint significance of the Lags of the variables on each variables using the F-test, the result shows that joints variable coefficients of Imports (M) and Exports are significant. Since the critical value at 5% level of significant $F_{0.05}$(K-1),(n-k) degree of freedom where k= 7, n=21; $F_{0.05}$(6,14)=2.85. Comparing the F-test of Imports = 47,74 and Export X= 63,62 with the F-critical =2.86,we can conclude that the two variables Imports and export in the model have a significant impact on the future values of each variables, while exchange rate(EX) are insignificant on future variables since the F-critical value > $F_{0.05}$(6,14); which equal to **2.337340.** Thus, exchange rate (EX) do not affect any future value of each variable in the model. Thus we accept the null hypothesis Ho which mentioned that Exchange rate has no significant effect on imports and exports. The Insignificance impact of the exchange rate on export and import future value can get explanation on the fact exchange rate management does not ensured directly by the authority of eight countries sharing the franc zone. As it has been published the fixed exchange rate between the CFA franc and the Euro is ensured by the French authorities which centralize half of the foreign currency reserves of the African countries of the franc zone (PAZF) on an account of operations managed by the French Public Treasury.

The CFA system is more flexible than a currency board, however, it does not allow for a monetary policy in line with

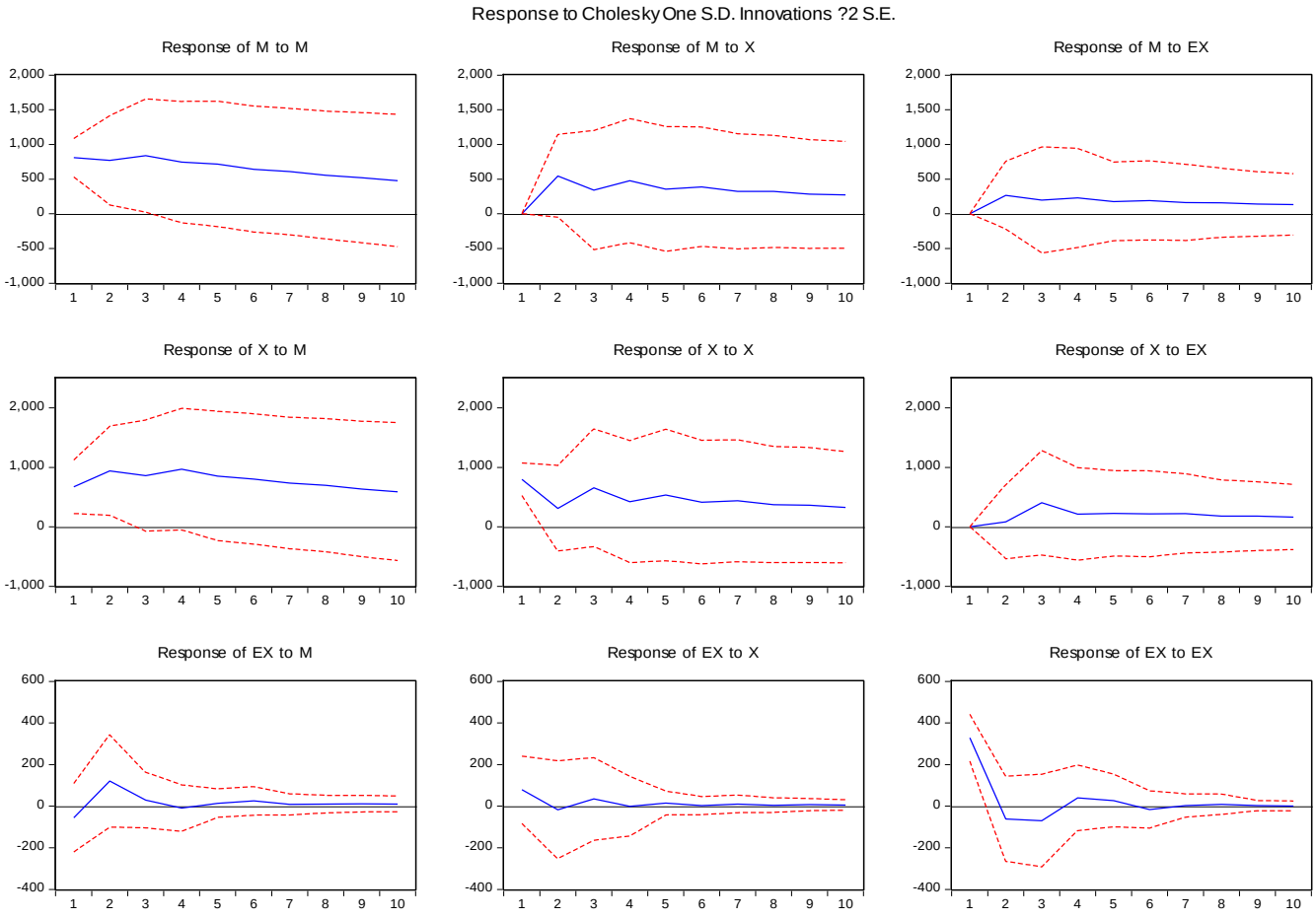
the needs of development. At the external level, the currency acts as an import subsidy and an export tax. On the domestic front, room for maneuver remains limited in a context of erosion of foreign exchange reserves caused by a decline in commodity prices. To meet the development needs of the PAZF, it is necessary that the exchange rate be able to play its role of buffer and that the very notion of monetary stability is redefined in order to take into account the tensions caused by the development of the goods market. and services.

How effective are the policies, especially monetary, adopted in CFA zones for decades? With regard to which objectives? It should be possible to question the exorbitant economic cost paid by the CFA franc zones in order to benefit from much vaunted "monetary stability". Most of the time, it is indeed presented in official literature as a principle that is just as intangible as it is beneficial to all the components of the economies concerned. Yet, is it really justified to continue to assert that "monetary stability", as conceived and practiced in both CFA zones, is a condition and not an obstacle to endogenous development worthy of the name?

4.4. Impulse Response Function

Before analyzing our impulse response function, we made some diagnostic regarding the correlation test, normality distribution test and heteroscedasticity test. After testing we found that the residual are not correlated (P-value>0.05), and jointly error in VAR system are normality distributed (P-value = 0.3023>0.05). It is also homoscedasticity since (P=0.229>0.05).

Regarding the Impulse response results for our variable Import, Export and Exchange rate, the finding show that reaction of exchange rate to shock itself initially starts to decline until the period 3 and then stabilize throughout the rest of period on the zero line. While reaction of exchange rate to Import and export remain positively constant throughout the period. This showed that it has not any shocks from exchange rate to modify the behaviors of export and import activities. Regarding the reaction of export and import to Exchange rate it evidence the same constant thoughout the period where the response curve of export and import are almost confound with the zero line the period.



4.5. Variance Decomposition

In the short run that is the quarter 1,2. impulse or shocks to import account for 100% variation of the fluctuation in import (Own shock). Shocks to exchange rate cause 0% fluctuation in first period, and second period it is about 1,07% fluctuation in variation of import. This result show that exchange do not explain any variability in Import.

Regarding the shock to export is estimated about 91% variation of the fluctuation in export. However exchange rate cause again 0% fluctuation in first period. This result showed that exchange do not explain any variabibily in Short run and long run since in Long run the percent of fluctuation variability of exchange rate on import and export still insignificant.

In sum our result evidenced that exchange rate do not have impact on imports and exports activities in cote d'Ivoire. Our result is similar with Nigeria finding where previous studies showed that Nigeria exchange rate do not affect much import and activities.

Table 4.4. Variance Decomposition

Variance Decomposition of M:				
Period	S.E.	M	X	EX
1	0.001132	100	0	0
2	0.02552	68.27768	30.64538	1.076937
3	0.01124	1.874594	8.324676	1.80073
4	0.011111	1.224468	18.43231	0.34322
5	0.0105	1.239209	3.250243	1.51055
6	0.02032	1.018552	2.299623	1.68182
7	1.58E-02	1.07959	0.771155	1.14926
Variance Decomposition of X:				
Period	S.E.	M	X	EX
1	0.01234	8.743286	91.25671	0
2	0.01985	12.05472	81.87773	1.067542
3	0.016234	2.931041	2.016236	1
4	0.011072	5.98018	11.94889	2.07093
5	0.0175	1.980597	3.198887	1.82052
6	0.014432	1.414842	13.14178	1.44337
7	1.83E-02	1.499328	2.644001	1.85667

Variance Decomposition of EX:				
Period	S.E.	M	X	EX
1	0.01432	2.432702	2.748188	94.81911
2	0.015423	2.787516	13.98291	83.22958
3	0.01471	1.635182	3.043707	95.32111
4	0.011243	0.898595	6.539413	92.56199
5	0.01436	1.308107	1.704381	96.98751
6	0.011346	0.856749	1.324265	97.81899
7	0.011338	1.140745	0.662661	98.19659
Cholesky Ordering: M X EX				

Comparing our result with others authors such as Carmen and Nicolas in 2011 those have studied impact of exchange rate on exports from 2nd quarter 2003 to 1st quarter 2011. their studies were based on Vector Autogressive and impulse response function analysis and they discovered that a shock in exchange rate has significant effect on export and import. For further information, we mentioned above that Bahamni Oskooe and Koyyryalova (2008) have investigated impact of exchange rate volatility on international trade between USA and England trade activities.

Their results showed that volatility of the real bilateral dollar- pound rates between USA and UK has a short and long run impact on the import of 109 industries and significant effect of exchange rate for 99 industries export activities.

5. Conclusions

While exchange rate does not affect export and imports activities as demonstrated by some empirical findings. However some empirical studies argued that exchange rate impact import and export activities. Our study Used Vector Autogression model, Impulsion response function to check the effect of exchange rate om import and export activities. The result indicated that exchange rate in cote d'ivoire does not affect import and export activities. But it evidence exchange rate coefficient is positive on exports at both lags EX(-1) and EX(-2). However the influence of exchange rate on import presented different influence at first lags, exchange rate EX(-1) is positive and insignificant but negative and insignificant at second lags.

6. Recommendations

The currency exchange rate is one of the most important determinants of a country's relative level of economic health. Exchange rates play a vital role in a country's level of trade, which is critical to most every free market economy in the world. However Exchange does not any play any role in the UEMOA community economy Growth. This can be explained that he CFA (Franc de la communaute financiere africaine) is operating in Fixe exchange regime and is permanently pegged to Euro. 50 per cent of these countries external reserves continue to be kept in an account held by the French Treasury, in order to guarantees the convertibility of the franc with the European currency, in an unlimited way. However, In the CFA zones, the notion, which gives the impression of serving to bring respectability to a monetary policy, is wrong. It is in fact too restrictive and mainly serves the well-understood interests of the European groups - particularly French – operator.

Comparing Nigeria or Ghana monetary system with Cote d'Ivoire monetary system, where it is possible to promote industrial development and to find external outlets, and also in which their sovereign authorities may decide to impose an exchange control so that the national currency (naira; Cedi) is undervalued. That is to say that their exchange rate be adapted to their needs of internal development and allow them to export at low prices. This is the strategy adopted by

China for several decades. However Cote d'ivoire sovereign authorities cannot decide to impose an exchange control, which could boost export activities.

The pegging to the Euro is subjecting the CFA franc to fluctuation in the European currency. According to certain African economist analysis, the pegging to euro involve a loss of export market, slow growth and a macroeconomic instability. it also created a less favorable foreign borrowing conditions, impediments to regional integration, and finally setbacks in local capital market development.

The pegging to euro also involve the easy flowing of capital, especially for European Investors.. Some economist analysis demonstrated the inefficiency of CFA exchange rate as an overvalued currency for the Economic. Our Recommendation urge the abandon of the CFA currency pegged to Euro. The abandon of the 50% of foreign reserve as deposit to franc treasury. We urge a rapid establishment of the new currency called Eco, which is consisted of ECOWAS countries, and want the new Currency to be fixed to a basket of currency instead of being pegged to the Euro only.

REFERENCES

[1] Ahmad, Muhammad and Qasim Attari (2017) Impact of exchange rate on Export in Case of Pakistan; Published At Bulletin of Business and Economic 6(2) 98-102 ISSN 2409-9368/http rfh.org-Pk/jur/magazine category/bbe www researchgate.net/publications 327755348.

[2] Alam, Shaista, and Qazi Masood Ahmad, 2011 Exchange rate volatility and Pakistan's bilateral imports from Major Sources: An application of ARDL Approach. International Journal of Economics and Finance 3: 245-254 /ijef.v3n2.

[3] Azeez, B.A., Kolapo, KT and Ajayi, L.B (2012). Effect of exchange Rates Volatility on Macroeconomic Performance In Nigeria, Interdiscplinary Journal of contemporary Research in Business 4(1): 149-155.

[4] Bahmani-Oskooee, M, and Kovyryalova, M. (2008). Impact of exchange rate uncertainty on trade flows: Evidence from Community trade between The United States and The UK. The World Economy, 31(8), 1097-1128.

[5] Bhattarai, D. K., & Armah, M. K. (2005). The Effects of Exchange Rate on the Trade Balance in Ghana: Evidence from Cointegration Analysis. Cottingham United Kingdom: Centre for Economic Policy Business School, University of Hull Cottingham.

[6] Baldwin, R., and Krugman P (1989). Persistent Trade Effects of Large Exchange Rte Shocks. Quarterly Journal of Economics 104 635-665.

[7] David, M. G., & Guadalupe, F. Á .-U. (2006). Exchange rate policy and trade balance.A cointegration analysis of the argentine experience since 1962. Munich Personal RePEc Archive Paper No. 151.

[8] Jarita, D. (2008). Impact of Exchange rates shock on prices of Imports and Exports in Malaysia MPRA Paper No.11624.

[9] Kasman, Adnan and Saadet Kasman (2005) Exchange rate Uncertainty in Turkey and its impacts on export volume. MET Studies In Development 32:41-58.

[10] Muhammad, Z (2014). Macroeconomic Relationships between Exchange Rate Instability, Exchange Volatility, Trade and Economic Growth Variables: The Case of Pakistan. Journal of Economics and Sustainable Development, 5(13).

[11] Mustafa, K and Mishat, M. N (2004) Volatility of exchange rate and export growth in Pakistan. The structure and interdependence in Regional markets. The Pakistan Development Reviews 43(4) 813828.

[12] Olyede Oluyemi, Isaacc Essi (2017); The Effect of exchange rate on imports and exports in Nigeria, International Journal of Economics and Business Management ISSN 2489-0065 Vol 3, No2 2017 www.iiardpub.org.

[13] Odili (2015) Effects of exchange Rates Trends and Volatility on imports in Nigeria: Implications for Macroeconomic Policy. International Journal of economics, Commerce and Management United Kingdom. 3(7).

[14] Omijimite, B.U. and Akpokodje, G (2010). The effect of Exchange Rates Volatility on The Imports of ECOWAS Countries. Journal of Social Sciences 4(2): 304-346.

[15] Sekmen, Fuat and Saribas Hakan (2007) Cointegration and causality among Exchange rate Export, and import: Empirical Evidence from Turkey: Published Applied econometrics and International Development Vol(7) 2007.

[16] Vinh Nguyen Thi Thuy and Dvong Trinh Thi Thuy (2019). The Impact Of exchange rate in Vietnam: A Bounds Testing Approach Published to Journal of Risk Financial Management 2019, 12,6. www.mdpi.com/journal/jrfm12010 006.